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The Second-Generation Theory of Fiscal Federalism: A Research Lesson from the Classroom

Giampaolo Garzarelli[1]

ABSTRACT

The second-generation theory of fiscal federalism (SGT) ought to more explicitly consider intergovernmental grants in order to continue to be a progressive research program. This proposition, which emanates from scope economies between teaching and research, implies that at present: (1) first-generation theory of fiscal federalism (FGT) and SGT concern two different organizational phases of a federation; (2) we analytically need both phases; and (3) FGT and SGT are also both still needed, at least as much as they still need each other. Taken together, (1), (2) and (3) outline a promising research path – a positive heuristic – for the SGT.

Introduction

A classic question in the economics of education concerns the existence of scope economies between teaching and research (e.g., De Witte et al. 2013). Is there a teaching-research learning nexus?

In terms of novel knowledge from research making its way to the classroom, matters are fairly trite. The opposite – having new research ideas or intuitions from teaching – less so. This article reports one instance of scope economies between teaching and research directly from the classroom. The instance regards new research insights gained from teaching two approaches for the study of fiscal federalism – namely, first- and second-generation theories of fiscal federalism (henceforth FGT and SGT).

The lesson learned from the instance can be summarized as follows. Motivated by preference revelation issues, the FGT considers that a federation is already in place and focuses on the internalization of externalities among federated states through intergovernmental grants. The SGT instead concerns why one should opt for fiscal federalism in the first place by trying to establish, mostly on organizational grounds, an incentive motivation for decentralization. The SGT does consider externalities, but does not explicitly consider the related role of grants. This means that there is hitherto no (or very little) normative overlap between the FGT and the SGT. I therefore ultimately suggest that in order for the SGT to be a progressive research program there should be normative overlap: the SGT ought to consider the role of grants.

My suggestion resonates with Oates (2005). However, given that my main source of inspiration is the classroom rather than the library, my reasoning differs from that of Oates on two main accounts. My reasoning is pedagogical in origin. This implies that it is more stylized, involving some degree of simplification and judgment, but not for this reason losing the essence of the original theories. More substantively, my reasoning is on the net more organizational too. It is closer in spirit to the SGT than to the FGT. These two reasoning differences allow me to assert that at present: (1) FGT and SGT concern two different organizational phases (or moments) of a federation; (2) we analytically need both phases; and (3) FGT and SGT are also both still needed, at least as much as they still need each other. Taken together, (1), (2) and (3) outline a promising research path – a positive heuristic – for the SGT.

[1] DiSSE, Sapienza – Università di Roma, Rome, Italy & IPEG, SEF, University of the Witwatersrand, Johannesburg, South Africa, giampaolo.garzarelli@gmail.com. I am grateful to all the undergraduate and graduate students in two continents who over the years had to go through my lectures and from whom I learned a lot, to the two anonymous referees who posed very challenging comments that led to significant improvements, and to Lyndal Keeton for her constructive feedback. My greatest debt is to Aldo A. Sitoe: this work would not exist were it not for the many stimulating conversations with Aldo over the years. All the shortcomings are mine.

The Lesson

Experience from teaching both undergraduate and graduate public economics for more than a decade (and in different continents) suggests that it is fruitful to be actively dialectical. I mean this in two senses. The first is the sense that should be familiar to most: the Socratic method or maieutics, where we engage in debates with students in the hope to stimulate interest, critical thinking, material retention, and additional insights. The second sense concerns how we lecture the topics. I began by teaching the FGT and then considering the SGT – i.e., I proceeded chronologically rather than dialectically. After some trial and error, in subsequent generations of classes I switched to teaching FGT and SGT together, but in juxtaposition to one another in terms of different assumptions, motivations, origins, problems explored, and the like. Relatedly, the teaching benefited from using elemental organizational reasoning as the common expository denominator for both. More precisely, given its more mature status, I found it convenient to illustrate the arguments from the perspective of the FGT while at the same time employing, as proposed by the SGT, an organizational lens. The dialectical nature of lecturing through an organizational lens ultimately allowed for more informative analytical comparisons. In particular, it is what added value in terms of informing my research lesson from the classroom – and, consequently, also permeates what follows.

FGT and SGT: A Quick Overview

The FGT mostly originates from the public finance framework presented in the classic works of Arrow, Musgrave, and Samuelson. It is essentially a (Pigouvian) framework that deals with benevolent social planning, market failure, Musgrave's three functions of government, Samuelson's equilibrium condition with private and public goods, welfare theorems, etc.

The motivational pillar of the FGT is the conviction that fiscal decentralization solves the knowledge problem tied to the nature of public goods. That is, the partitioning of fiscal responsibilities among levels of government offers an efficient solution about how to supply a good that because of its nonexclusivity and nonrivalness does not encourage the spontaneous revelation of individual preferences (Oates 2011).

The SGT, as hinted at the outset, proposes the inclusion of insights from the theory of the firm or, more broadly, the modern economics of organization (Gibbons and Roberts 2013) to study decentralized intergovernmental fiscal relations (Qian and Weingast 1997). Though the SGT is still-emerging – and embeds different interests and approaches, e.g., the trade-off between policy design and rent-seeking as an incomplete contract problem (Seabright 1996), policy experimentation by viewing a federation as a laboratory (Garzarelli 2006), and incentive alignment between consumer-voters and elected officials as in a common agency model (Tommasi and Weinschelbaum 2007) – it has one uniting assumption that explicitly sets it apart from the FGT. That is to say that the organization of multilevel government should not be a matter of indifference in public economics. The baseline view is that different organizations have different welfare consequences.

Note that proposing this view is not tantamount to asserting that the FGT (as we will see more clearly as we proceed) denies that decentralized public sector organization, especially of the vertical type (e.g., Oates 1999), matters. Rather, the SGT is trying to define a *theoretical* research program that the FGT lacks. The point is not just to recognize that organization matters, but to see what an explicit application of economics of organization theory can add to the field of fiscal federalism. Recognition of organizational importance is insufficient if one still considers the public sector as a black box in scientific practice.

The SGT presents some overlap with political economy approaches, most notably Public Choice and Political Economics (Oates 2008). The overlap concerns the interest in aligning political incentives. For example, how decentralization of fiscal functions can improve political accountability (such as limit capture, clientelism, and shirking), and, more generally, reduce the political taste for excessive budget relaxation (e.g., Rodden et al. 2003) that can lead to Leviathan (Brennan and Buchanan 1980).

However, there is a basic difference between the SGT and political economy approaches. When performing comparative institutional analysis, political economists mostly allow for rent seeking considerations. Without negating self-interest, the SGT is instead also interested in studying positive incentives: those incentives that create value by means of trial and error learning, such as those that channel individual curiosity, initiative, and energy towards the exploration of novel policy solutions (Callander and Harstad 2015). This "muddling through" (Lindblom 1959) view to policymaking (and to other productive human action), means that the SGT is closer in spirit to the work of new institutional economists rather than to that of political economists (Garzarelli and Keeton 2018). The reason is that the new institutionalists allow for the consideration of both value creation (positive incentives) and rent seeking (negative incentives) when assessing feasible institutional alternatives (Bates 2014). Most notably, think about the work of Douglass North and collaborators, which, while owing to (positive) political economy, especially Public Choice, considers both incentives (North et al. 2009).

The FGT and the SGT therefore originate from different traditions – public finance versus economics of organization – and have different motivations – knowledge versus (positive and negative) incentives – for fiscal federalism. So much for differences between the two; what about points of tangency?

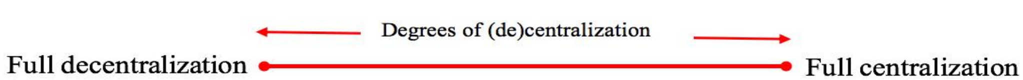
Positive Overlap

This question can be answered both positively and normatively. More or less explicitly, a part of the literature acknowledges the positive tangency point. It is the belief that public sector governance is not just about mutually exclusive positions. Public governance does not merely regard centralization or decentralization. Rather, it equally regards all the positions in between, from less to more (de)centralization. Public governance is a spectrum.

For the FGT, one can trace back the governance spectrum to Oates (1972), and as a result virtually finds it within the entire theoretical edifice of the FGT. For the SGT, the work of, e.g., Garzarelli (2006) and Weingast (2009) embeds the spectrum. Other related contributions endogenizing the spectrum are, among others, Breton (1996), Inman and Rubinfeld (1997), Cooter (2000), and Buchanan (2001, pp. 67-89). Political economics recognizes the existence of the spectrum as well (e.g., Lockwood 2002; Besley and Coate 2003; Luelfesmann, et al. 2015). Yet, the majority of the SGT and related work leaves the spectrum exogenous in practice; more precisely, it considers externalities, but does not sufficiently study grants. This is the major theme behind the lesson of this article that we will return to when dealing with the normative overlap.

From the perspective of the positive tangency point, then, centralization and decentralization are just two ideal-typical extremes of a public governance spectrum about the division of labor of fiscal responsibilities among a state's levels of government. Place full centralization at the right extreme. This is zero fiscal devolution – just one government at the central level, no local ones. At the left extreme place full decentralization. This is fully autonomous fiscal devolution; think, as the most extreme case, of governments belonging to different nation-states. See Figure 1. The two ideal-typical extremes can at times be inclusive. Think about the dissolution of many European states (Yugoslavia, USSR, etc.) that after the fall of communism led to new, autonomous states with new forms of governance (even if many of these states were purportedly politically federal, their governments all practiced economic central planning); or about the idiosyncratic EU that, from its ongoing process in the opposite direction (from autonomy to increased centralization), now could be interpreted as lying somewhere within the extremes.

Figure 1: A Positive Public Governance Spectrum



Factually, however, the majority of governance is internal to the extremes. Most economies defining themselves as unitary in reality fiscally lie inside the extremes, not genuinely coinciding with the right-hand one (e.g., Breton 2000). For example, France and Japan would be very close to the latter extreme, but Italy and South Africa less so; while over the years Belgium growingly moved from being close to this extreme to ever-increasing decentralization. The same holds for federations. Canada and the United States, for instance, can be considered closer to the left-hand extreme than, say, Switzerland. In short, no matter the de jure public governance, from a positive viewpoint, de facto, one mainly faces degrees of (de)centralization.

To sum up, the positive tangency point between FGT and SGT considers available governance, namely the spectrum of Figure 1 as the set of governance 'equilibria.' What is not yet clear is if there is also a normative tangency point between FGT and SGT.

Normative Overlap

The normative tangency point regards the relatively better governance given the available governance repertoire. That is to say that the basic interest is with the economic policy choice about 'optimal' fiscal decentralization along the spectrum of Figure 1.[2]

No one explicitly seems to have pointed out that the often-invoked Decentralization Theorem is *only one of two* complementary policy reference points found in Oates (1972). The theorem regards what we may think of as the most general normative choice: the decision about policy direction, not the extent of (de)centralization. It prescribes that "in the absence of cost-savings from the centralized provision of a" local public "good and of interjurisdictional external effects, the level of welfare will always be at least as high (and typically higher) if Pareto-efficient levels of consumption of the good are provided in each jurisdiction than if *any* single, uniform level of consumption is maintained across all jurisdictions. In this way the [Theorem] establishes, in the absence of other kinds of offsetting benefits from centralized control, a presumption in favor of decentralized finance" (Oates 1972, p. 54, original emphasis; see also p. 35). Hence the theorem represents "a straightforward normative proposition" (Oates 1999, p. 1122) about why one would fiscally decentralize in the *first place*.

To recast the point in organizational terms, the theorem's policy guidance is the selection of the *overall normative governance strategy*. If one exogenous variable is cost of public good supply and the other is amount of preference idiosyncrasy of public good demand, then the governance strategy hinges on the following logic. If there are economies of scale benefits from centralized supply notwithstanding local consumption of the public good, then direct toward centralization. Decentralization should be approximated the more local preferences are variegated, and the more these variegated preferences sort themselves into homogenous groupings.[3]

The purpose of the theorem therefore is to inform about the route to travel within well-defined fiscal governance constraints (the feasible governance equilibria of Figure 1), but not about the destination (an equilibrium governance from the feasible ones of Figure 1). In other words, by limiting the space of policy choice only by difference does the theorem also delineate a normative fiscal governance spectrum.

The theorem's prescription – the governance strategy – naturally begs the question of what makes fiscal federalism self-sustaining according to the FGT. How does federalism survive on a daily basis? The answer to this question pivots on the complementary, more tactical FGT policy reference point.

The FGT theoretically rests on governance with at least two levels of government: central and local. The benevolent central government (or planner) deals with distribution and stabilization, and supplies national public goods (e.g., common defense, foreign affairs). The (also benevolent) local government instead deals with local public good allocation in the attempt to more precisely satisfy different dispersed preferences. But local governments could fail to coordinate in order to correct spillovers among their jurisdictional boundaries (adapt different standards, leave economies unexploited, pass conflicting laws, etc.). The central government, however, never fails, saving the day with appropriate spillover internalization through coherent, locally targeted policy (e.g., Inman and Rubinfeld 1997, pp. 45-48). It thus corrects for interjurisdictional spillovers from local public goods through matching grants (Pigouvian unit subsidies); the greater the extent of the spillovers, the greater the extent of direct central intervention through grants (the larger the unit subsidies), and vice versa.

This second policy reference point entails the following proposition.

> FGT PROPOSITION. The costs (benefits) of preference matching from (de)centralization increase (decrease) as the extent of interjurisdictional spillover falls (rises).

The proposition can be visualized readily in $\mathbb{R}^2$ as an inverse relation between preference matching and externality internalization. Thus, the normative FGT governance relation depicted by Figure 2 synthesizes the notion that externality internalization more likely occurs towards centralization, and the converse, that preference matching more likely occurs towards decentralization.

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[2] An optimal policy is such in at best a second-best sense; in a first-best world, decentralization would not be necessary (e.g., Tresch 2015). One intriguing scenario is that perhaps the best second-best world is a decentralized one with many specialized governments in the same state where then the individual would necessarily belong to as many governments that are needed to satisfy her preferences (Tullock 1969).

[3] Parenthetically, it is from the latter demand consideration dealing with a sort of roundabout Tiebout (1956) effect from which springs the theorem's necessary toll – inspired by de Tocqueville (1990[1835], Ch. 8, pp. 163-164) – that centralized public good supply is uniformity. All else equal, the theorem in fact postulates that the more preferences are variegated, the more a uniform central supply will dissatisfy. Other work, however, argues that the assumption that the cost of centralization is policy uniformity need not be necessary (e.g., Lockwood 2002; Besley and Coate 2003).

Figure 2: FGT Normative Governance

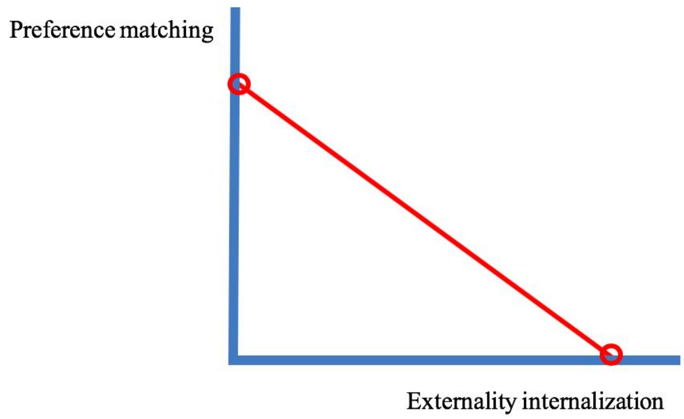


Figure 2 is one (heuristic) way to translate the positive spectrum of Figure 1 into FGT normative terms. In point of fact, the normative governance relation is also a spectrum, moving from more to less decentralization as we go from northwest to southeast. The movements along the relation are from central Pigouvian subsidies. For example, a point on the relation close to its southeast neighborhood implies a high-level central subsidy; while a point by the northwest neighborhood implies the opposite. This reasoning leads to the following corollary.[4]

FGT COROLLARY 1. The extent of (de)centralization is (inversely) proportional to grant amount: the higher (lower) the grant amount, the higher the (de)centralization.

The polar extremes are here recognized but excluded, even ideal-typically; otherwise, the normative foundational trade-off at the root of the FGT would be absent. In the case of the *x*-intercept, we would see perfect externality internalization, but no local government, as preference matching would be absent. In the case of the *y*-intercept, we would see a perfect preference matching, but no role for central government, as externality internalization would be absent. Both polar cases would not do justice to the raison d'être of the FGT: the assumption of the existence of at least a two-level decentralized system of public governance in order to work out the arrangement of fiscal responsibility within it.

An additional consequence of the discussion then is the following corollary.

FGT COROLLARY 2. The polar extremes of the normative relation are not a policy choice, irrespective of the (minimum two) given levels of governance.

Is there a relation between these FGT normative considerations and the SGT? The short answer is: partially, as one would expect given the different analytical interests of the two theories. But the relation can be rendered both clearer and more complementary – as long as we continue to reason organizationally.

Recall that the Decentralization Theorem proposes that given a pure public good that is consumed by a number of non-homogenous local jurisdictions but absent centralized cost-savings and interjurisdictional externalities, differentiated decentralized provision should be favored over uniform centralized one. Further recall that the FGT, when the theorem *does not hold*, has a role for intergovernmental grants in terms of internalization of interjurisdictional externalities.

When put in these terms, this observation follows: theorem and grants can be seen as solving two different kinds of governance problems. The theorem is originally in place to solve the preference revelation problem through public sector fiscal decentralization, while grants are in place to allow an already fiscally decentralized public sector to adapt through time.

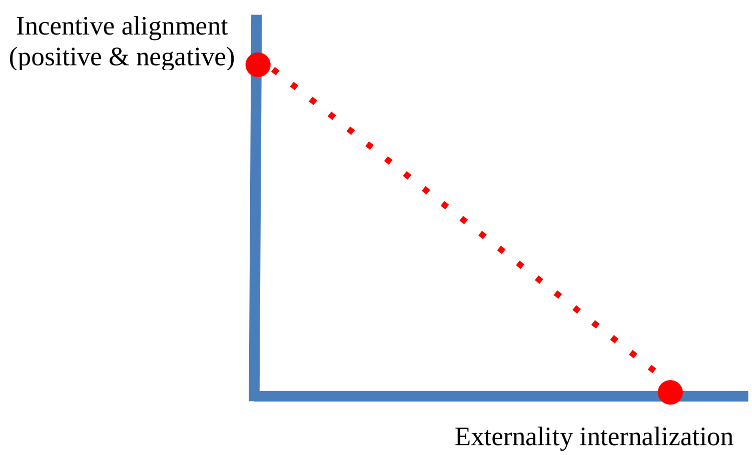
The SGT is mostly silent when it comes to a role for grants. However, one can infer that, just like the FGT, it recognizes a minimum of two levels of government. While the FGT implies that central and local

[4] A more elaborate discussion would also account for grant conditionality, but, with refinements, the reasoning would still hold (Garzarelli and Keeton 2018).

government are both benevolent social planners with no organization of relevance, the SGT suggests that government, no matter the level, is an imperfect organization given human fallibility (political motivations are often expedient rather than for the public good, policies are muddled through rather than optimized, etc.); and that is why one should decentralize irrespective of preference revelation (for political accountability, for policy experiments, etc.). Yet little is said in terms of economics of organization theory once decentralization is in place.

There are currently just two SGT normative public sector governance equilibria, which are mutually exclusive; a normative governance spectrum is absent. Figure 3 represents a possible rendering of this assertion in the same (heuristic) spirit of Figure 2. The dotted line means that, even though externalities are acknowledged, the corresponding normative governance relation that leads to organizational adaptation through grants is weakly defined or inexistent. In practice, at present there is only the binary organizational choice about centralization and decentralization of the public sector, which is indicated by the two filled dots placed on the axes. The dot on the abscissa stands for complete centralization (in the presence of interjurisdictional spillovers), while the one on the ordinate stands for complete decentralization (in the absence of interjurisdictional spillovers).

Figure 3: SGT Normative Governance



We come now to our final proposition, which can be stated from the perspective of both SGT normative choices.

SGT PROPOSITION. The governance benefits of positive and negative incentive alignment are present (absent) with complete decentralization (centralization), or, equivalently, the governance benefits of interjurisdictional spillover internalization are present (absent) with complete centralization (decentralization).

Therefore, the SGT normative governance trade-off – differently from the FGT one – is at present one of kind, rather than of degree. This difference originates mostly because the two theories focus on two different governance phases of fiscal federalism. The two phases are not organizationally incompatible. Quite the opposite is the case. As will be clear before long, they have yet to be considered in tandem. It is up to the SGT to pick up the challenge.

Heuristic (Added) Value: A Research Path

The research lesson learned from teaching – that the SGT needs a more explicit treatment of grants – should not be accompanied by negative undertones. Recall in fact that the SGT is still an emerging research program. This means that it can easily accommodate a variety of research issues. By way of a conclusion, we shall delineate the organizational contours of a research issue more directly related to our lesson; refer to Garzarelli (2018) for an elaboration.

At its most elemental, as pointed out earlier, one can think of the problem of economic organization as being composed of two phases: first, the fixed cost of designing an organization, and, second, the variable costs of keeping an organization afloat. In our more specific context, the first phase can be likened to the so-called assignment problem of fiscal federalism. In this phase, one tries to determine which level of government should do what in terms of Musgrave's three functions of allocation, distribution, and stabilization. The typical outcome is that local governments should deal with allocation and central government with distribution and stabilization. Though the outcome is most often justified, even implicitly, in terms of the FGT motivation, the SGT motivation is not incompatible with it, and in fact can be seen as being complementary: the organizational nuance that the SGT introduces is that this first phase can be interpreted as dealing with the assignment of property rights over different types of policies to different levels of government. That is to say that, to borrow an expression from political science, we can think of this first phase as being about constitutional engineering.

By determining what level of government is responsible for what in terms of most general property rights to policy, the first phase effectively also gives legitimacy to the second. For example, the property rights to locally or centrally provided health care, education standards, environmental management, and the like commonly also fall within the first phase. But the details about how to design the relevant policy agencies (to stick to our example, the health, education, and environmental ministries) are left for the second, post-constitutional phase. The same holds for the more specific rights tied to day-to-day organizational adaptation, namely rights to policy design are also left over or, if you like, emerge by difference as needed. For instance, in the presence of a poorer municipality (a negative externality), we know from the first phase that the central government would usually hold the property rights to disburse an equalization grant to try to level the supply of public goods among all municipalities. But the design of the grant formula, a specific right that is often effectively in the domain of intergovernmental fiscal relations, is a second phase matter. The point to underscore is that the variable costs attached to these and similar survival practices should be the bread and butter of an organizational approach to fiscal federalism as well.

How can one go about considering both fixed and variable costs from a SGT perspective? One way to bridge the analysis of these fixed and variable costs through the economics of organization is to reason according to transactions (Breton and Scott 1978). Transaction costs and property rights are, after all, two faces of the same coin – they cannot be meaningfully separated. Just like in "the world of Robinson Crusoe property rights play no role" (Demsetz 1967, p. 347), so transaction costs "must be defined to be all the costs which do not exist in a Robinson Crusoe economy" (Cheung 1998, p. 515). Moreover, it can be convincingly argued that the original governance approach of Coase (1937), from which virtually all modern theories of economic organization spring, embeds both fixed and variable transaction-cost analysis (e.g., Allen 2000).

The upshot is that the SGT scholar would not need to reinvent the wheel to begin exploring the two organizational phases of a decentralized public sector. One nontrivial research issue would be to explore in SGT terms the received FGT notion that when there is a local interjurisdictional externality, the central government must perform internalization – i.e., the question of whether it is necessarily the case that central government is the only organization with property rights to externality internalization. If one performs comparative (variable) transaction-cost analysis in the second phase, then it may be that in some cases top-down vertical internalization may be more costly than horizontal, autonomous intervention; a result favoring the attribution of property rights to externality internalization to one of the local governments that are directly involved. In terms of Figure 3, this would mean that the spectrum would become populated not just, as mainly implied currently, for reasons of top-down vertical internalization, but for reasons of horizontal and bottom-up vertical internalization as well. Clearly, the outcome of the comparative calculus determining the nature of internalization would also be influenced by how the federal structure is designed in the first phase, which is also an issue involving transaction cost considerations, albeit of the fixed type.

Take note that this is not synonymous with the naïve position advocating outright a sort of Coase Theorem equivalence principle for the public sector, such as the so-called Federal Coase Theorem (correctly) critiqued by Cooter and Siegel (2010). The position being advocated here is more sophisticated. It is informing us that the first phase of design is as fundamental as the second phase of adaptation, namely that, to be a progressive research program, the SGT needs Coase (1937) as much as Oates (1972) *and* Coase (1960).

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