Dynamic De/Centralization in Federations: Comparative Conclusions

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This article presents the conclusions of the project *Why Centralization and Decentralization in Federations?*, which analyzed dynamic de/centralization in Australia, Canada, Germany, India, Switzerland, and the United States over their entire life span. It highlights six main conclusions. First, dynamic de/centralization is complex and multidimensional; it cannot be captured by fiscal data alone. Second, while centralization was the dominant trend, Canada is an exception. Third, contrary to some expectations, centralization occurred mainly in the legislative, rather than fiscal, sphere. Fourth, centralization is not only a mid-twentieth century phenomenon; considerable change occurred both before and after. Fifth, variation in centralization across federations appears to be driven by conjunctural causation rather than the net effect of any individual factor. Sixth, institutional properties influence the instruments of dynamic de/centralization but do not significantly affect its direction or magnitude. These findings have important conceptual, theoretical, methodological, and empirical implications for the study of federalism.

As we noted in the introduction to this special issue of *Publius*, de/centralization in federations has been widely discussed in the literature since *The Federalist* but no attempt to measure it from a long-term comparative perspective and across its different dimensions had been carried out. In the mid-1970s, Riker (1975, 140) remarked that an index able to capture de/centralization across time and space "would make possible a truly comparative study of federalism for the first time." He pointed out, however, the challenges involved in constructing such a measure. Others also have stressed how difficult it is to measure de/centralization comparatively (e.g., Davis 1978, 213n13; Simeon 1986, 446; Vaubel 1996, 80; Chhibber and Kollman 2004, 105).

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We have taken up the challenge, by measuring de/centralization statically (i.e., at any given point in time) and dynamically (i.e., over time) across six federations (Australia, Canada, Germany, India, Switzerland, and the United States) since their founding, and sought to explain the resulting patterns. The conceptual, methodological, and theoretical framework underlying the project is outlined in the introductory article. Here, we attempt a comparative analysis of our findings.

We proceed as follows. Sections 2 and 3 briefly recall the theoretical expectations and methodological approach underpinning the project. Sections 4–6 map static de/centralization at the outset of each federation and in 2010, and trace the dynamic process of de/centralization in relation to direction, magnitude, tempo, form, and instruments. Section 7 moves from description to tentative explanation and offers a qualitative assessment of the theoretical expectations in light of the patterns emerging from our measurement. Section 8 discusses our findings against the backdrop of the existing literature, reflects on their significance for studying federalism, and identifies avenues for further research. The concluding section summarizes our main take-away points.

Theoretical Expectations

As developed in the theoretical expectations set forth in the introduction to this issue, we hypothesize that dynamic de/centralization is shaped by a broad range of factors operating at different levels and different points in time.

The most remote factors pertain to antecedent conditions that shaped static de/centralization at the outset (i.e., the starting point for dynamic de/centralization). Given that the scope of government was much more limited in the nineteenth century compared to contemporary welfare states, one could expect federations created before World War I (i.e., the United States, Switzerland, Canada, and Australia) to be less centralized at birth than those established after World War II, namely, Germany and India. Federations born out of a "federal bargain" (Riker 1964, 12–16) should also start from a lower level of centralization than those created differently. Given that the four older federations were both established before World War I and emerged from a federal bargain, we expect them to have been very decentralized at the outset and, consequently, to have experienced considerable dynamic centralization, most of it occurring after 1920.

Regarding dynamic de/centralization, several socio-economic and socio-cultural trends should be considered as important drivers. In the socio-economic sphere, technological change, increased mobility, and market integration—often placed under the umbrella of "modernization"—are said to fuel centralization (e.g., Beer 1973). After World War II, globalization might have further contributed to centralization, given the scope for the central government to encroach upon the autonomy of the constituent units through international agreements (e.g., Lazar

et al. 2003, 4). Globalization's effect is likely to have been reinforced by regional integration (e.g., the European Union), although we expect the latter to have had a different impact both geographically and depending on whether a federation is mono- or multinational. In multinational (including binational) federations, globalization and regional integration may temper centralization or even favor decentralization by increasing the threat of secession by nationally distinct units (e.g., Meadwell and Martin 1996; Lazar et al. 2003, 20). As regional integration has been most advanced in Western Europe, much less so in North America, and largely absent in South Asia and Oceania, Germany and Switzerland should have experienced the strongest effect of this factor, India and Australia the weakest, and Canada and the United States, a medium-strength effect. As the only multinational federation among our cases (see below), Canada will, on this basis, have experienced less centralization and possibly even decentralization as a result of regional integration compared to the other five federations.

As regards the socio-cultural domain, in monolingual federations such as Australia, Germany and the United States, citizens' primary identification with the constituent units can be expected to decline over time and their primary identification with the federation to rise. Multilingual federations that forge a common national identity—such as India (e.g., Stepan et al. 2011) and Switzerland (e.g., Dardanelli 2011)—should follow a pattern similar to that of the monolingual federations. In multilingual federations that become multi- or binational, such as Canada, the evolution of citizens' identification should restrain centralization or even reverse it. The evolution of citizens' expectations about the role of government, as represented most prominently by rising demands for uniform welfare services throughout the country, are likely to have fueled dynamic centralization in all federations (e.g., Birch 1955).

According to a widespread consensus in the literature, these relatively slow-moving trends may have been reinforced or amplified by short-term shocks such as wars and economic crises (e.g., Wheare 1946, 254).

We expect these trends and shocks to have led to changes in attitudes toward the vertical distribution of powers in the federation, principally among the general public, organized interests, and the media, broadly favoring an accretion of powers at the center. Pressures toward centralization, however, will be mediated by political and institutional variables that reinforce or weaken them. Several such variables lend themselves to theorizing. The first political variable is the degree of nationalization of the party system (Riker 1964, 91–101; see also Chhibber and Kollman 2004, 226–227). High levels of nationalization such as in Australia and Germany should have facilitated centralization whereas lower levels in Switzerland should have acted as a brake. Likewise, the rise in the degree of nationalization in the United States and the decline in India should have had a corresponding effect on de/centralization.² A second variable in this category is the political orientation

of the federal executive, whereby parties of the left are generally seen to favor centralization while parties of the right resist it (e.g., Döring and Schnellenbach 2011, 92–94). Centralizing steps are thus more likely to occur under parties of the left and federations having experienced longer periods of left-wing rule should have experienced higher centralization. A third variable is the orientation of the judicial umpire, whereby constitutional or supreme courts with a centralist orientation will facilitate centralization while those of the opposite persuasion will stem it (e.g., Livingston 1956, 12; Aroney and Kincaid 2017).

Turning to institutional factors, a large number of constituent units can be seen as facilitating centralization (e.g., Watts 2008, 71–72). By contrast, the constituent units' possession of residual powers, a dual model of federalism, separation of powers between the legislature and the executive, and direct-democracy approval of constitutional change should constrain centralization (e.g., Döring and Schnellenbach 2011, 85–90; Bednar et al. 2001, esp. 264; Blankart 2000, 32). Finally, in indirect-administration federations, we expect centralization to be confined largely to the legislative sphere, especially through growing use of framework legislation by the central government.

Data and Methods

As elaborated in the introductory article, our data measure static de/centralization at ten-year intervals from each federation's foundation to 2010 in twenty-two policy and five fiscal categories (tables 1 and 2 in the Supplemental Online File). Each policy area is assessed as to its legislative and administrative de/centralization, understood as the degree of autonomy individual constituent units possess vis-à-vis the federation. Legislative autonomy relates to each constituent unit's (i.e., canton, Land, province or state) control of primary legislative powers. Administrative autonomy concerns a constituent unit's control over the implementation of public policy in executing federal as well as its own legislation. This yields data for forty-four policy scores and five fiscal scores at between seven (Germany and India) and twenty-three (United States) time points, which is a total of 3,871 observations. Each data point is intended to capture the state of de/centralization at the end of the respective decade.

We measured the degree of a constituent unit's legislative and administrative control in policy matters on a seven-point scale: 1 = exclusively the central government; 2 = almost exclusively the central government; 3 = predominantly the central government and the constituent units; 5 = predominantly the constituent units; 6 = almost exclusively the constituent units; and 7 = exclusively the constituent units. As detailed in the introduction to this *Publius* issue, we measured a constituent unit's autonomy in the fiscal sphere

through five different categories, each scored on seven-point scales based on either numerical indicators, where available, or qualitative assessment.

We coded the degree of autonomy in each policy and fiscal area on the basis of constitutional and non-constitutional developments – such as the enactment of legislation and changes in fiscal transfers – occurring over the previous decade that either increased or decreased the legislative, administrative, or fiscal autonomy of the constituent units. The Supplemental Online files attached to the case-study articles of this issue detail the codes assigned, indicate the sources the codes are based on, and outline the justification for each coding decision.

For each time point, we computed: (a) the modal and mean policy and fiscal scores, and the standard deviation among them; and (b) the deviation between the legislative and administrative policy scores by category and in the aggregate (L-A deviation), which can be considered a measure of the duality of a federation: the smaller the difference, the higher the duality.

To measure dynamic de/centralization, we computed the following statistics: (a) the total, modal, and mean frequency of score change by policy and fiscal category and in the aggregate; (b) the patterns of direction and magnitude of score changes; (c) the cumulative direction and magnitude of score change by policy and fiscal category and in the aggregate; and (d) the mean rate of score change per year by different periods.

Mapping Static De/Centralization at the Outset

Static de/centralization at the outset varied considerably across the six federations (figure A1 and tables 1–3 in the Supplementary Online File). The two oldest, the United States and Switzerland, were highly decentralized on all three dimensions. Australia, the fourth oldest federation, was also considerably decentralized, albeit less so than the previous two. Canada, by contrast, was significantly more centralized, especially in legislation and administration. In all four cases, the deviation between the legislative and the administrative score was small, but, with the exception of Australia, greater than zero, thus indicating that most federations, the United States included, were never perfectly "dual". All were least centralized in the fiscal sphere.

The two later federations were significantly more centralized than were the United States and Switzerland at their founding but only marginally more so compared to Canada. Germany and India were also not much more centralized than the level reached by the United States, Switzerland, and Australia by 1950 (figures A3–A5). True to its reputation as the paradigmatic example of indirect administration, Germany displayed a large difference between the legislative and the administrative scores, and administrative decentralization was also higher than

fiscal decentralization. India, by contrast, conformed more closely to the dual pattern of the older federations.

There was also considerable variation across policy fields. Education (both pretertiary and tertiary), law enforcement, and environmental protection were the most decentralized—mean score ≥ 6 —in the legislative sphere across all six federations, whereas external affairs, currency and money supply, and defense were the most centralized—mean score ≤ 2 . In pre-tertiary education, external affairs, and law enforcement the distribution of powers was the most consistent across the six cases—standard deviation ≤ 1 —whereas there was high variation—standard deviation ≥ 2 —in several fields (table 1 in the Supplementary Online File). By and large, a similar pattern can be observed in the administrative sphere (table 2 in the Supplementary Online File). Fiscally, the proportion of own-source revenues displayed the lowest score, with some variation across the six federations, whereas the proportion of conditional grants scored highest everywhere (table 3 in the Supplementary Online File).

Mapping Dynamic De/Centralization

Frequency⁴

The frequency of dynamic de/centralization varied considerably across federations. In absolute terms, policy change was much more frequent in Australia, Switzerland and, especially, the United States than in the other cases. While this is, to some extent, a function of a federation's age, it is not entirely so. If we adjust the figures by the length of each federation's life span, so as to obtain a rate of change per decade, we observe that Australia had the highest rate, followed by the United States and Switzerland. Germany's rate was not too dissimilar to that of the two oldest federations, whereas in India and Canada the "federal balance"—i.e., the distribution of powers between the central government and the constituent units—in the policy sphere was much more stable. The frequency of policy change was higher in the legislative than in the administrative dimension in most cases but the reverse is true for India, while in Canada the two figures are equal (tables 4 and 5 in the Supplementary Online File).

Disaggregating by policy category, we find that legislative change was most frequent in agriculture, environmental protection, health care, and social welfare, whereas it was least frequent in currency and money supply, external affairs, and civil law (table 4 in the Supplementary Online File). Administrative change was most frequent in finance and securities, economic activity, social welfare, and the media, and least frequent in language, civil law, and elections and voting (table 5 in the Supplementary Online File).

Direction

In most federations, change was overwhelmingly centralizing, especially in the legislative dimension. In Australia and Switzerland, all legislative changes were centralizing and so were 89 percent of the legislative changes recorded in the United States. Canada, however, bucked the trend. It experienced an equal number of centralizing and decentralizing changes in the policy sphere and even a higher number of decentralizing steps in the fiscal sphere. Germany and India also displayed a more mixed pattern, with a significant number of decentralizing steps in the legislative (Germany) and administrative (India) spheres (tables 4–6 in the Supplementary Online File).

The picture emerging is further reinforced by the data on cumulative direction over the entire life span of the six federations. All but Canada became more centralized, across the legislative, administrative and fiscal dimensions, whereas Canada became less centralized in all three dimensions, particularly so in the fiscal sphere (figure A7 and tables 7–9 in the Supplementary Online File).

Examining cumulative legislative de/centralization in individual policy fields (table 7 in the Supplementary Online File), outside Canada, all federations became more centralized in every area, with the single exception of elections and voting in India. In Canada, there was decentralization in several fields. Not a single policy area experienced the same cumulative direction of change in all six federations. Centralization, however, was most consistent in economic activity, environmental protection, health care, and social welfare. A broadly similar pattern can be observed in the administrative sphere, though there were a few more instances of decentralization in India (table 8 in the Supplementary Online File). The fiscal sphere displayed more contrast, with significant decentralization in Canada, and also in Germany and India, particularly in the degree of transfer conditionality (table 9 in the Supplementary Online File).

Magnitude

Mirroring some of the above patterns, the magnitude of dynamic de/centralization varied considerably across cases (figure A7 and tables 7–9 in the Supplementary Online File). Given their much lower static centralization at their founding, the United States and Switzerland, followed by Australia, underwent the deepest dynamic centralization, particularly so in the legislative sphere. Centralization had a much smaller magnitude in Germany and India, both of which started from markedly higher levels of static centralization. As already seen, Canada experienced a mix of centralizing and decentralizing steps, which produced a cumulative decentralization of small magnitude. While centralization in the two oldest federations was highest in the legislative sphere and lowest in the fiscal sphere, the pattern is reversed in Germany and Canada, whereas in India centralization was lowest in the administrative sphere.

The data disaggregated by policy category show that in the legislative sphere, the magnitude of centralization was highest in social welfare, environmental protection, and agriculture, whereas defense was least affected, and external affairs, with the exception of Canada, witnessed no change. In Canada, by far the largest magnitude of decentralization took place in employment relations whereas the other fields that experienced decentralization did so only modestly (table 7 in the Supplementary Online File). In the administrative sphere, there was more variation across federations; the only pattern holding for more than one case is high centralization in the fields of the media, social welfare, and transport (table 8 in the Supplementary Online File). Regarding dynamic fiscal de/centralization, magnitude was highest in the restrictions placed on own-source revenues (table 9 in the Supplementary Online File).

Pace, Timing, and Sequence

In all six federations, dynamic de/centralization proceeded mostly gradually. While frequency, as seen above, varied considerably, in all cases change took place primarily through low-magnitude steps. In the legislative dimension, for instance, more than 75 per cent of changes were of only one point (table 13 in the Supplementary Online File). Single changes of a large magnitude, such as in employment relations in Canada or in civil and criminal law in Switzerland, were rare.

There was higher variation both longitudinally within each federation and across them in the aggregate pace of dynamic de/centralization, with a peak of seventeen changes of policy score in one decade and troughs of zero in others (figure A2). Some of these peaks, such as in the 1870s in Switzerland, in the 1930s and 1970s-80s in the United States, and in the 1970s in Australia, could be considered "critical junctures", i.e., involving high-magnitude change with significant long-term consequences.

Dynamic centralization was not only a mid-twentieth century phenomenon (figure A2). Noticeable centralization occurred in Switzerland and the United States as early as the latter part of the nineteenth century. We can also observe a high rate of change over the last two decades in most federations. Here too, though, Canada is an outlier, having experienced little change both in the initial period and in the most recent one. The rate of change in India also declined in the more recent period.

Significant sequential patterns are clear in only a few cases. The shape of the dynamic de/centralization trend curve in the legislative sphere shows three patterns: (a) the United States, Switzerland, and Australia followed a largely linear path of progressive centralization; (b) Canada experienced decentralization in the first half of the twentieth century and centralization later; and (c) Germany and India underwent centralization in the earlier decades and moved very slightly in the opposite direction after 1980 (figure A3).⁵

Regarding sequential patterns between different forms of dynamic de/centralization, in both Australia and Canada, change in the fiscal sphere appears to have preceded change in the policy sphere, but the same did not occur in the other cases, especially Switzerland and the United States (figures A2–A4). What occurred in both Australia and the United States, however, is that the central government expanded its fiscal capacity first and then utilized part of that capacity to constrain the states' policy autonomy via the use of conditional transfers (see Fenna on Australia and Kincaid on the United States in this issue).

Form

In the United States and Switzerland, where it had the highest magnitude, dynamic centralization took mainly a legislative form whereas significantly less centralization occurred in the administrative and, especially, fiscal spheres. Australia had high centralization across all three dimensions. In Canada and Germany there was proportionally more dynamic de/centralization in the fiscal and, to a lesser extent, administrative dimensions than in the legislative one, while India underwent proportionally less centralization in the administrative sphere. In the latter three federations, however, these relative differences have to be placed in the context of a small overall magnitude of change (tables 7–9 in the Supplementary Online File).

The different magnitudes of dynamic de/centralization across the three dimensions had noticeable consequences in terms of the degree of duality of each system (figure A6). Switzerland, especially, but also the United States acquired a progressively more administrative nature over time, with the cantons and states increasingly administering federal policies. Although this was to be expected in Switzerland, given that the creation of an extensive central government administration was always out of the question, it is more remarkable in the U.S. case, the dual federation *par excellence*. Canada, India and, to a lesser extent, Australia, however, followed a different trajectory as their duality declined only very slightly while in Germany the very high administrative character of the federation decreased due to significant centralization in administration.

Instruments

The instruments through which dynamic de/centralization unfolded varied considerably across cases (table 13 in the Supplementary Online File). Constitutional amendments were paramount in Switzerland and prominent also in Germany and India but much less so in the other cases. The use of framework legislation was central to the Swiss experience and also, *de facto* if not *de jure*, in the United States but less significant elsewhere. The use of fiscal instruments was particularly prominent in Australia but to a lesser extent in the United States and virtually non-existent in the other cases. Likewise, court rulings were crucial in the

United States and also in Australia, Canada and India, but less so in Germany and not important in Switzerland. The enactment of legislation by either the central or the constituent governments was important in Canada and Germany but not in the other cases. The central government's use of international treaty powers had some significance in all federations, particularly so in Australia, but did not generally play a major role. "Coerced" horizontal joint action, lastly, was absent across the board.

Asymmetry

Outside Canada, dynamic de/centralization was largely symmetrical—save for temporary situations such as Reconstruction (1865–1877) in the United States. Canada, by contrast, has become increasingly asymmetrical since the 1960s, with a growing number of policy areas as well as of provinces affected, Quebec in particular.

Mapping Static De/Centralization Today

The dynamics outlined above produced the contemporary patterns of static de/centralization presented in figure A8 and tables 10–12 in the Supplementary Online File. The general picture is less variation across federations than at the outset, as indicated by the drop in the standard deviation figures. There is also similarity across the six cases in that centralization is highest in the legislative sphere and, except for Germany, lowest in the fiscal sphere.

Differences remain significant however, two of them especially so. The first concerns the degree of legislative de/centralization. While five of the six federations cluster around a score of 3, Canada is one whole point less centralized. The second concerns the degree of duality, as measured by the legislative-administrative deviation. Here, the contrast between Switzerland, Germany, and the United States at one end, and Canada and Australia at the other end is substantial.

Disaggregating by policy and fiscal category reveals similarity in some of them but also several instances of large variation across cases. In the legislative sphere (table 10 in the Supplementary Online File), pre-tertiary education and law enforcement are the most decentralized across the board, whereas currency and money supply, defense, citizenship and immigration, and external affairs are the most centralized, and consistently so. The most striking differences are the following: (a) much lower centralization in employment relations and, to a lesser extent, finance and securities in Canada compared to the five other cases; (b) much lower centralization of civil law in Canada, Australia, and the United States vis-àvis Germany and Switzerland; (c) lower centralization of criminal law in Australia and the United States compared to the four other cases; (d) much lower centralization of tertiary education in Canada and Germany compared to Australia

and India; and (e) much lower centralization of media regulation in Germany compared to the five other cases.

Broadly similar patterns prevail on the administrative side (table 11 in the Supplementary Online File), though differences are slightly less pronounced. The main exception is the much lower centralization of media regulation in Germany compared to the other cases, while there is also noticeable variation in tertiary education and social welfare.

Fiscally (table 12 in the Supplementary Online File), decentralization is lowest regarding restrictions on own-source revenues and transfer conditionality, while it is highest, and consistently so, in the proportion of conditional grants. Variation is high in all categories apart from the proportion of conditional grants, with Canada often at the most decentralized end of the spectrum. Also noteworthy is the contrast between a high proportion of own-source revenues and high transfer conditionality (albeit within a low volume of conditional transfers), displayed by Switzerland and the United States, and the opposite pattern of low own-source revenues but also low conditionality (and very low volume of conditional transfers) in Germany.

Toward an Explanation of Dynamic De/Centralization in Federations

In this section, we assess the hypotheses outlined above, and elaborated in the introduction to this *Publius* issue, against the comparative evidence from the six cases.

Static De/Centralization at the Outset

The hypothesis that older federations as well as federal-bargain federations would be less centralized at the outset is broadly confirmed but only weakly so for Canada. As seen above and in the article on Canada in this special issue, Canada in 1870 was considerably more centralized than were the United States and Switzerland at the outset, and only slightly less so than Germany in 1950. Canada's initially high centralization can be explained, however, by a set of contingent factors that do not invalidate the general theoretical point that changing expectations of government played an important role in shaping the different federal balances generally observed in the older federations compared to the newer ones. The much smaller gap between the initial levels of de/centralization in Germany and India, and the levels reached by most older federations by 1950 underscores the point.

The related hypotheses that the older federations would experience higher dynamic centralization, the bulk of which would take place after 1920, are confirmed except for Canada. While three of the older federations did experience

much higher centralization than the newer ones, Canada did not. Likewise, while, generally speaking, the bulk of centralization in the older federations did occur after 1920, significant centralizing steps were taken in Switzerland and the United States as early as the later nineteenth century. Thus, to a sizeable extent, the magnitude of dynamic centralization is a function of the initial level of static de/centralization; hence, Canada's experience is not surprising. There is more to its "deviant" experience, however, than its rather centralized nature at birth (see Lecours on Canada in this issue); hence, Canada's trajectory, as discussed below, has important theoretical implications.

Socio-Economic Trends

The expectation that all federations become more centralized over time as a result of socio-economic modernization is confirmed in most cases but Canada is an exception. The modest legislative decentralization undergone by Germany and India since 1980 is also noteworthy. Besides, there are prominent differences across the six cases regarding the impact of modernization in specific policy fields. For instance, technological change was an important centralizing factor in defense in Switzerland, but not in the United States. The advent of motor vehicles spurred centralization in road transport in Australia and the United States, but not in Canada. The evolution of the media went hand in hand with centralization in Switzerland, but not in Germany.⁷ This suggests that modernization, though important, does not inevitably foster centralization but may interact in complex ways with other factors.

The expectation of a generalized centralizing influence emerging from globalization finds only limited support. It is at odds with Canada's experience and only weakly consistent with that of the other cases, except for Australia (see Fenna on Australia in this issue). We can thus say that globalization's slightly centralizing effects are overshadowed by the consequences of other, more powerful, factors. Similarly, the hypothesis that regional integration would have a centralizing effect in mononational federations but a decentralizing effect in multinational ones, is confirmed, but its effect is generally weak. Even in Germany and Switzerland, the two federations most exposed to it (although Switzerland is not a member of the European Union, integration is based on bilateral treaties), integration played only a marginal role.

Socio-Cultural Trends

The hypothesis that citizens' growing identification with the federation would fuel centralization in mononational federations (both mono- and multilingual) while the presence of competing nationalisms would hinder it in multinational federations is well supported. By and large, this appears to be the case for Canada,

Switzerland, and the United States. Australia, Germany, and India, where identification with the federation was already strong at the outset and did not grow appreciably over time, offer less scope for assessing this expectation.

The hypothesis that citizens' changing expectations of the role of government would facilitate centralization is also confirmed, but not without qualifications. Canada withstood centralization in several key policy areas despite citizens' growing demand for government services and regulation, while expectations changed less in the German and Indian federations given their shorter life spans.

Economic and Security Shocks

The experience of most federations only mildly supports the expectation that economic and security shocks were major factors in fostering centralization. Although there is evidence that significant spurts in centralization coincided with wars and economic crises, many centralizing steps were taken in the absence of such shocks, similar shocks had different effects in different federations, and wartime centralization was sometimes followed by post-war restoration of much of the *status quo ante*.

Collective Attitudes

The expectation that collective attitudes about the federal balance would change because of the above trends and shocks and, in turn, create incentives and constraints for political agency vis-à-vis de/centralization is broadly confirmed. We have found considerable evidence that the attitudes of citizens and interest groups, in particular, played an important role. Contrast, for instance, the deeply-felt preference for policy uniformity in Germany with the strong desire for provincial go-it-alone in many fields in Canada.

Political Agency

The hypothesis that dynamic de/centralization would closely correlate with party system nationalization finds only limited support. Although it is consistent with the experiences of Australia⁸ and Canada, it is less so with those of Switzerland and the United States, which had comparatively lower party-system nationalization but high centralization. It is also at odds with India's trajectory, where a steep decline in the degree of party-system nationalization did not yield a commensurate level of decentralization, contrary to Friedrich's (1968, 64) expectation.

Regarding ideology, we do find evidence, particularly in Australia, that centralizing steps tend to be more closely associated with parties of the left but the association is weaker than expected. Centralization also occurred under the tenure of parties of the right, which, notwithstanding some of their pronouncements,

rarely engaged in serious decentralizing efforts. Often, ideology seems to matter more in rhetoric than in action.

By contrast, the hypothesis that de/centralization dynamics are heavily shaped by judicial preferences—in systems where a constitutional or supreme court is the ultimate umpire—finds strong support, particularly with regard to Australia, Canada, and the United States. In these federations, courts adopted different perspectives on the federal balance at different times and such changes of perspective significantly influenced the trajectory of de/centralization. This, however, should be put into the context of the literature on courts and judicial review, which notes that judicial behavior is rarely at odds with mainstream public opinion and the preferences of a majority of elected politicians (e.g., Hall 2016, 393).

Institutional Properties

Lastly, none of the hypotheses regarding institutional properties finds significant empirical support.

The expectation that federations with a smaller number of constituent units would experience less centralization is consistent with Canada's experience; it is, however, strongly at odds with Australia's trajectory, the federation with the fewest constituent units in our sample and yet high centralization. Nor does the considerable difference in the number of constituent units between Switzerland and the United States seems to have had a discernible influence on the similar centralization trajectory in the two countries, while Germany and India, given their higher initial level of static centralization, are weak tests for this hypothesis. Thus, the number of constituent units, by itself, had little or no detectible influence on dynamic de/centralization. In conjunction with other factors, however, it can be an important variable, as indicated by Canada's experience (see below).

The hypothesis that federations whose constituent units possess residual powers would experience less centralization is also rejected. Canada, whose provinces have no residual powers, actually experienced modest decentralization, whereas Australia, Switzerland, and the United States, all of which reserve residual powers to their constituent units, experienced high centralization. Possessing residual powers seems not to have helped Germany's *Länder* retain their autonomy more successfully than India's states either.

The proposition that indirect-administration federations would experience higher centralization than direct-administration ones performs only marginally better. It would be difficult to claim that the dual federations resisted centralization more successfully than did their more administrative counterparts. Australia and the Unites States show that dual federations experienced high centralization too. Moreover, Canada's ability to withstand centralization appears to have had little to do with its dual nature (see Lecours on Canada in this issue). Perhaps more

surprisingly, even the hypothesis that centralization would be confined to the legislative sphere in the indirect-administration systems is not supported fully. It is strongly confirmed for Switzerland but not for Germany, where centralization was actually slightly more significant in the administrative sphere, or the United States, the epitome of a dual federation, which experienced more centralization in the legislative than in the administrative sphere.

The hypothesis that parliamentary federations would experience higher centralization than non-parliamentary ones finds no support either. Although it is confirmed in Australia's case, it is at odds with the experience of Switzerland and the United States, which are non-parliamentary federations that experienced high centralization, as well as with Canada's path, a parliamentary federation that became less centralized. In Canada, moreover, parliamentarism facilitated the emergence of a system of "federal-provincial diplomacy" (Simeon 1972) that played a significant role in stemming centralization.

Direct democracy's hypothesized role as a brake on centralization also largely failed to materialize. The two federations with a direct-democracy requirement for constitutional change, Australia and Switzerland, are among those that centralized the most. While in both cases direct democracy occasionally placed significant obstacles in the way of centralization, it was not, in the main, a major bulwark against it. Table 13 in the Supplementary Online File summarizes our assessment of these hypotheses.

In a Nutshell

What emerges from this evidence is that dynamic de/centralization is the product of an interaction of factors operating at different levels. Two main forms of interaction appear to be prominent. The first is that structural factors such as socio-economic and socio-cultural change shape intervening variables such as public attitudes to the federal balance, which, in turn, induce political actors to engage in de/centralizing steps, in a "funnel of causality" process (Campbell et al. 1960, 24-32; Hofferbert 1974, 225-234; see also Gerber and Kollman 2004, 398). As we attempt to represent in stylized form in figure A9, dynamic de/ centralization can be seen as a succession of de/centralizing steps occurring over time, each of them the product of such a "funnel of causality". The second form of interaction is that, at each level of the "funnel," different factors operate in conjunction, in some cases reinforcing, and in other contrasting, each other. Patterns of collective identification, for instance, can compound the effect of growing expectations of government in one federation but temper it in another. The combination of these two forms of interaction produces complex causal paths, which we need to be sensitive to in attempting to account for variation across federations.

We can summarize this section as follows:

First, there are wide-ranging structural forces at work in the socio-economic and socio-cultural spheres, occasionally reinforced by economic and security shocks, that produce pressures in most federations to expand the scope and reach of the central government at the expense of the autonomy of the constituent units. After World War II, these forces have also been augmented somewhat by globalization and, in some areas, by regional integration.

Second, these largely common forces interact, however, with the widely different structural features of each federation and are thus refracted in different ways in different contexts. Prominent among those structural features are the degree of integration of the economy and the relative strength of collective identification with the constituent units compared with the federation as a whole.

Third, the product of these interactions thus shapes collective attitudes about the federal balance differently in different federations. High economic integration and strong identification with the federation tend to foster centralization; where these conditions are weaker, public attitudes tend to resist centralization and even favor decentralization.

Fourth and finally, political actors—themselves, of course, also influenced by the structural features of each federation—respond to the incentives and constraints presented by the different patterns of collective attitudes within the institutional framework of each federation. The latter influences the instruments through which de/centralization occurs but does not fundamentally affect its other properties, such as its direction and magnitude.

Thus, two federations as different as the United States and Switzerland, though both with high economic integration and strong citizen identification with the federation, experienced a similar process of dynamic centralization, albeit by following different paths. Canada, by contrast—where the constituent units are few, mostly large, weakly integrated economically, commanding strong citizen identification (going as far as the second largest of them considering itself a stateless nation), and equipped with powerful executives—withstood centralization to the extent of moving from being the most centralized of the pre-World War I federations to being the most decentralized of our six cases today (see also Esman 1984; Smiley 1984; and Simeon and Radin 2010).

Dynamic De/Centralization and the Study of Federalism

These findings have important conceptual, methodological, theoretical, and empirical implications for the study of federalism.

Empirically, they provide support for widespread claims (e.g., Corry 1941, 216; Wheare 1946, 252–253; Sawer 1969, 117–130) that democratic federations tend to become more centralized over time. Our findings substantiate these claims with

detailed evidence capturing variation across federations, dimensions, and categories, over the long run. As a result, federations tend to become more similar to each other, in terms of static de/centralization, over time. A necessary qualifier, however, is that centralization is neither inevitable nor unidirectional. It only applies where certain conditions are present; where they are not, different de/centralization dynamics can unfold.

The second empirical implication is that centralization generally takes primarily a legislative form. Contrary to some predictions (e.g. Philip 1954, 99; Sawer 1969, 117-130; Oates 1972, 226-227), there was less significant change in the fiscal (although Australia and Germany are important exceptions) and administrative spheres. Consequently, the constituent units of most federations retained considerable fiscal autonomy but saw their policy roles become increasingly administrative, thus blurring the traditional distinction between the direct- and indirect-administration types of federalism, as Sawer (1969, 117-130) predicted. Given that the legislative autonomy of the constituent units is a defining feature of a federation, these trends could, if sustained, ultimately put the survival of federalism as a distinct form of polity in doubt. This chimes with fears long present in the literature. In late nineteenth-century Switzerland, for instance, opponents of the unification of civil law codes warned that such a step would turn the cantons into prefectures akin to the French departments, thus ending the country's federal system (Kölz 2006, 484-485). Corry (1941, 217), Birch (1955, 290), Friedrich (1968, 24), Duchacek (1970, 348), and Elazar (1981), among others, expressed similar concerns.

Conceptually, these implications underscore the value of treating de/centralization as multi-dimensional, first by distinguishing between a static and a dynamic perspective, then by distinguishing between the legislative, administrative, and fiscal dimensions, and subsequently by disaggregating each of them into their individual components, such as individual policy areas and distinct fiscal categories. The pattern of evolution in each of these dimensions and categories is often very different; only by being sensitive to this variation can we grasp the complex nature of dynamic de/centralization.

These conceptual implications have clear parallels in the methodological field. Given the complex nature of these dynamics, and their impact primarily in the legislative rather than fiscal sphere, fiscal data alone cannot capture them. This is true, it should be noted, not only of fiscal indicators that measure capacity—such as the proportion of central government revenues or expenditures out of total government revenues/expenditures—but also of those measuring autonomy, such as the ones we have employed in this study. Although this is not a novel claim—more than forty years ago, Pommerehne (1977, 308) acknowledged the limitation of using fiscal data to capture de/centralization dynamics—it is important to restate it, given the still widespread reliance on fiscal indicators alone. Nor would a

single index of "party congruence," as proposed by Riker (1975, 137–139), capture these dynamics, not least because it would be too prone to short-term fluctuations, whereas our findings show that dynamic de/centralization is cumulative and mostly slow-moving.

From a theoretical perspective, four implications appear particularly noteworthy. The first, as already noted, is the conjunctural nature of the causal process shaping dynamic de/centralization. Individual factors may have no or a different effect in some cases but be causally important in conjunction with other factors in other cases. Second, and contrary to other findings (Erk and Koning 2010), multilingualism—as opposed to multinationalism—does not *per se* appear to be an important determinant of dynamic de/centralization, as the experiences of Switzerland and India testify. Third, the contrast between the causal effects of multilingualism and those of multinationalism underscores the importance of the connection between nationalism and federalism to understanding how the latter evolves. Friedrich's (1968, 30–36) claim that federalism and nationalism are intimately linked is thus still valid. Fourth, and arguably most important, our findings show how much stronger structural socioeconomic factors are in shaping the evolution of federations compared to institutional or partisan features, thus vindicating the "sociological" approach to federalism advanced by scholars such as Livingston (1956) and Friedrich (1968).

The final implication regards avenues for further research. Given the small number of cases, on one side, and the multiple properties of dynamic de/centralization as well as the high number of potential causal factors, on the other, we have only been able to conduct a qualitative assessment at the macro level of the causal effects of individual factors, interacting with each other in complex ways. We have only scratched the surface in trying to understand how and why key de/centralizing steps occur. There is thus considerable scope for micro analyses of such steps able to fully explore the causal chains that determine them. We hope the framework developed in this project and the data collected will be valuable for such future endeavors.

Conclusions

Dynamic de/centralization is a complex phenomenon that needs to be parceled into its different dimensions and time periods to be understood fully. Democratic federations have generally become more centralized over time but primarily so in the legislative sphere, than in the administrative and fiscal spheres. Where this did not happen, as in Canada, it appears to be the product of the interaction of several factors; chief among them is the country's binational nature. Institutional properties channel dynamic de/centralization through different paths but do not fundamentally affect its direction or magnitude. These findings both substantiate and challenge several prominent claims put forward in the literature and have multiple implications for the study of federalism. They also suggest promising

avenues for further research on the determinants and mechanisms of dynamic de/centralization in federal systems.

Supplementary Data

Supplementary data are available at Publius: The Journal of Federalism online.

Notes

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- 1. The data set is available on the project website at https://de-centralisation.org.
- 2. Given that no longitudinal data on party system nationalization are available, our estimates of the degree of nationalization are based on a qualitative assessment. Table 13 in the Supplementary Online File reports data for 2010.
- Cross-case comparability of the data on own-source revenues and the proportional of conditional transfers is reduced by the fact that the data include local governments in some cases but not others.
- 4. Although frequency is an aspect of what we call *tempo*, for ease of presentation we discuss it separately.
- 5. Space limitations prevent discussion of the temporal de/centralization patterns in each policy and fiscal category, but the data are available upon request.
- 6. As seen above, Germany was actually more decentralized administratively.
- 7. Where it spurred harmonization through enhanced horizontal co-operation (see Kaiser and Vogel on Germany, in this issue).
- 8. In Australia, the magnitude of centralization actually exceeded the degree of nationalization of the party system (see Fenna on Australia, in this issue).

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Appendix 1

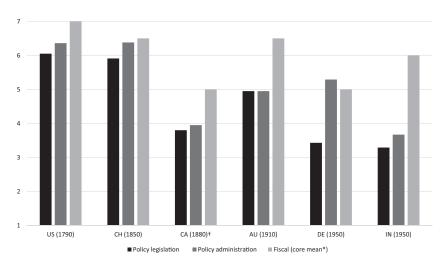


Figure A1 Mean static de/centralization at the outset

Note: *core mean=proportion of own-source revenues plus proportion of conditional transfers divided by 2; †data for Canada are provided for 1880 because no core fiscal mean is available for 1870.

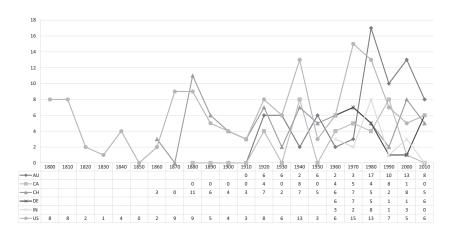


Figure A2 Frequency of dynamic policy de/centralization by decade*

Note: *number of code changes in both the legislative and the administrative dimensions.

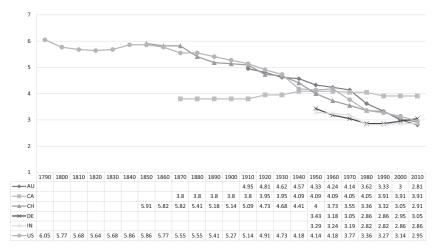


Figure A3 Mean static legislative de/centralization, 1790-2010.

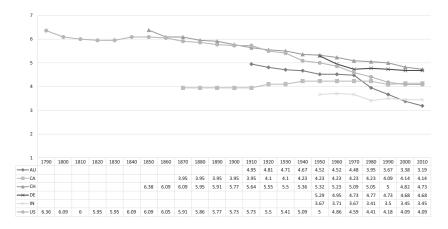


Figure A4 Mean static administrative de/centralization, 1790-2010.

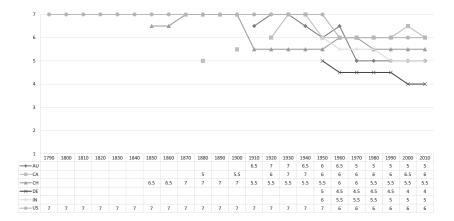


Figure A5 Mean static fiscal de/centralization, 1790-2010*

Note: *core mean = proportion of own-source revenues plus proportion of conditional transfers divided by 2.

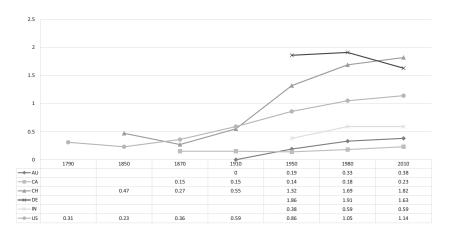


Figure A6 Legislative-administrative mean deviation, 1790-2010.

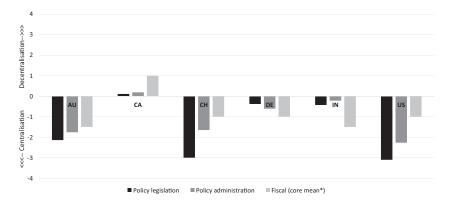


Figure A7 Cumulative mean dynamic de/centralization, outset-2010.

Note: *core mean = proportion of own-source revenues plus proportion of conditional transfers divided by 2.

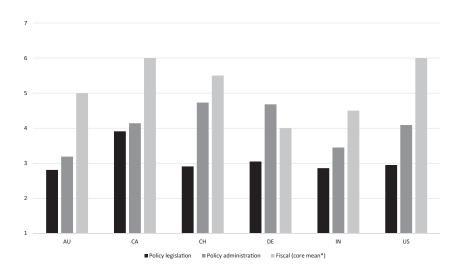


Figure A8 Mean static de/centralization, 2010

Note: *core mean=proportion of own-source revenues plus proportion of conditional transfers divided by 2.

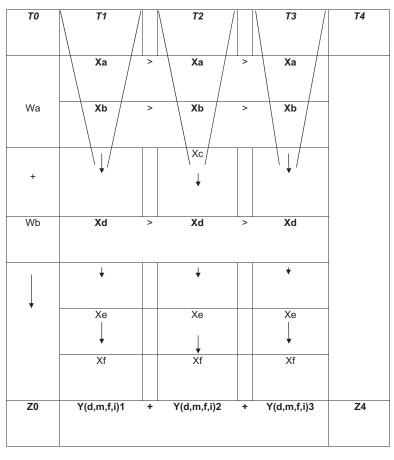


Figure A9 Stylized causal model of dynamic de/centralization.

Note: T0, T1, T2, T3, T4: time points; Wa and Wb: antecedents; Z0: static de/centralization at the outset (time 0); Xa: socio-economic trends; Xb: socio-cultural trends; Xc: economic and security shocks; Xd: collective attitudes; Xe: political agency; Xf: institutional properties; Y1, Y2, Y3: instances of dynamic de/centralization; Y(d,m,f,i): properties of dynamic de/centralization; Z4: static de/centralization at the end; > signals change over time; the arrow sign denotes causal effect; bold indicates the more important factors.