«Parecchi stati, di tempo in tempo, come vascelli che affondano, periranno, periranno, per colpa dei loro miserabili piloti e marinai, colpevoli della più grave ignoranza nelle materie più gravi: poiché senza nulla conoscere della politica, si immaginano di possedere questa scienza in tutti i suoi particolari, meglio di tutti gli altri».

Platon (Il Politico)
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PRESENTAZIONE

Dei cinquantaglottro "Quaderni" che "Il Politico" ha pubblicato a partire dal 1963, dodici sono dedicati all'Europa, alle sue istituzioni e al processo di unificazione-integrazione-costruzione in cui si va svolgendo la sua vicenda. In occasione del primo dei tre incontri di studio che la Facoltà di Scienze politiche dell'Università di Pavia (in ideale continuità con il convegno sul federalismo statunitense promosso nel 1958 da Bruno Leoni) ha organizzato sui temi europei in collaborazione con il Center for European Studies della City University di New York (rispettivamente nel 1986, nel 1987 e nel 1988, il secondo dei quali a New York) e i cui Atti trovano posto nella collana, Mario Albertini sottolineava infatti che: "Il contatto con la realtà si ristabilisce solo se si attribuisce valore esplicativo non solo al termine integrazione ma anche ai termini unificazione e costruzione" e chiariva che "Per questi termini dovrebbe valere la seguente relazione: un processo di unificazione con un proprio significato storico e carattere nettamente politico (quale che sia caso per caso il suo contenuto economico e sociale), che dipende dai vari gradi di integrazione (accettabili con l'orientamento del funzionalismo) a volta a volta resi possibili dai diversi gradi di costruzione (accettabili con l'orientamento del costituzionalismo)".

La chiave interpretativa fornita da Albertini consente pertanto di dare un ordine, inquadrandoli in uno schema strutturato, non solo ai tentativi contributi di ricerca esposti e discussi nei tre convegni italo-statunitensi (numerosi fra i quali danno naturale spazio all'"altrove" dell'Europa, e ai punti di vista esterni al Continente), ma altresì

alle relazioni sul Parlamento europeo e sulla sua elezione (poi raccolte in volume) che già parecchi anni prima, nel 1971, erano state oggetto di un seminario promosso dal Centro Studi sulle Comunità Europee dell’Athenaeo pavesi; e altresì, nell’ottica del deepening europeo, alle problematiche monetarie e finanziarie che sono argumento prevalente di tre fascicoli specifici. È invece alla prospettiva di widening più controversa, quella che riguarda la domanda di adesione della Turchia, che fanno riferimento i “Quaderni” che raccolgono le quarantaquattro relazioni e comunicazioni discusse a Pavia in tre (1990, 1993 e 2000) dei quattro convegni organizzati dalla Facoltà di Scienze politiche e della Bosphorus University of Istanbul.

Gli ultimi due (in ordine di tempo) “Quaderni” europei si proponevano di ribadire alcuni fondamentali del discorso europeo e delle sue prospettive. Nel primo si riflette “a tutto campo” proprio sul federalismo di Mario Albertini, in ideale continuità, anche in questo caso, con il convegno su “Kant, l’Europa e la pace” che lo studioso pavesi aveva organizzato nella nostra Università nel 1981 per approfondire e rielenciare la proposta del “paesaggio istituzionalizzato” – e perciò necessariamente federalistico – di ispirazione kantiana. Nel secondo, sotto il titolo “Quale Europa?”, si raccolgono gli atti della quarta giornata di studi de “Il Politico” in occasione della quale, il 5 maggio 2003, era stato presentato e discusso un “Rapporto” sui lavori della Convenzione Europea presieduta da Valéry Giscard d’Estaing, unitamente ad alcune analisi storico-politologiche sulle prospettive costituzionali dell’Unione Europea e sui relativi documenti: e questo sempre con l’attenzione rivolta alla molteplicità delle diverse possibili (e anzitutto necessarie) prospettive di analisi, che Arturo Colombato identifica nella storia dell’idea (o, meglio, delle idee) di Europa, nella ricerca della sua identità e nello studio della sua unificazione. Nel redigere un primo bilancio delle conclusioni della Convenzione, vi si sottolinea come, di fronte al bivio che sistematicamente si apre di fronte a chi deve applicare all’integrazione europea i modelli alternativamente disponibili, la Convenzione stessa abbia finito con il privilegiare l’approccio “integrale”, seppure con l’eccezione – di matrice invece “sovraunione” – che ha portato all’estensione della previsione del voto a maggioranza qualificata e a una più ampia applicazione della procedura di co-decisione.

Anche nei ducentodiciotto fascicoli che “Il Politico” ha, a sua volta, pubblicato dal 1950 le tematiche europee hanno avuto un rilievo del tutto particolare per intensità di impegno analitico. In questa prospettiva è stata quindi valorizzata la molteplicità “strutturale” delle angolature disciplinari rilevanti, ma è stata altresì attribuita la necessaria evidenza alla “singolarità” atmosferica dell’esperienza dell’Europa unita e delle sue istituzioni: questa è stata quindi, in un certo senso, re sa autonomia rispetto ai singoli ambiti specializzati e a questi “sovradimensionati”.

È in questa prospettiva, e in questa tradizione, che si collocano i presenti fascicoli della collana “Il Politico-Terni e problemi”, n. 3 de “Il Politico” 2008, che si pubblica mentre si vanno ancora svolgendo vi cende e procedure di ratifica del Trattato di Lisbona, firmato in quella capitale il 13 dicembre 2007, che modificava il Trattato sull’Unione Europea e il Trattato che istituisce la Comunità Europea. Nel dettare l’introduzione alla più recente delle numerose edizioni di un loro fortunato volume, Giuseppe Mammarella e Paolo Cacace scrivevano infatti nel luglio 2008: “Compito della politica e della cultura sarà, ancora una volta, quello di chiarire la natura dei problemi, delle soluzioni e delle alternative… nella convinzione che vi sia bisogno non di meno Europa, ma di più Europa, pur nelle forme e nei modi che solo un nuovo dibattito che auspichiamo e a cui vorremmo poter contribuire, potrà chiarire”.

A questi medesimi intendimenti si ispirano i sette contributi contenuti nel volume che presentiamo. Cinque di questi riguardano ambiti specializzati diversi, mentre gli altri due si propongono di approfondire, nell’unico orto politica rimasta” – per dirlo con Ralf Dahrendorf citato proprio da uno degli autori, Arturo Colombato – i principali aspetti storico-ideali e identitari. L’analisi politologica di Michael Tatham si colloca in un contesto teorico “neo-istituzionalista”, in quanto vi rilevano tanto le preferenze degli “artisti” (secondo i canoni dell’individuismo metodologico) quanto le “istituzioni” (secondo i canoni dell’istituzionalismo): essa approfondisce e perfeziona lo schema interpretativo elaborato da Hans Keman con riferimento al “federalismo”

Inteso come variabile esplicativa tanto in una prospettiva analitica quanto ai fini di una più soddisfacente comprensione sia dell’Unione Europea sia delle entità statali che la costituiscono. I concetti di centralizzazione e di decentramento, nonché quelli di Stato unitario e di Stato federale, costituiscono, nelle loro combinazioni e nella loro corrispondenza alle entità statali che vengono considerate, la “griglia” interpretativa utilizzata tanto nel contributo originale di Keman quanto nella variante proposta da l’atham. Dal canto suo, il contributo di Massimiliano Ferrara parte dalla constatazione degli isomorfismi riscontrabili fra gli strumenti di ricerca utilizzati in termodinamica e in economia (nell’approccio di Georgescu-Roegen): su tale base si propone di portare a compimento un esercizio di termodinamica economica, individuando le condizioni alle quali il sistema costituito da una pluralità di sistemi economici che interagiscono, in particolare da quelli che costituiscono l’“Europa a 27”, convergono ad equilibrio.

Muovendosi nell’ambito delle analisi di political economy, Michele Ruta, a sua volta, argomenta la tesi secondo la quale il futuro economico dell’Unione Europea è strettamente condizionato da quello politico, e in particolare dalle scelte di politica “costituzionale” che verranno effettuate: l’alternativa essendo fra una situazione che vede prevalere politiche “nazionali” indipendentemente decise (assetto che massimizza l’efficacia “frenante” degli interessi costituiti) e l’altra – preferibile – nella quale le scelte (particolarmente nei campi dell’energia, della finanza e dei servizi) vengono invece effettuate dal governo dell’Unione, con il risultato di favorire, mediante la maggiore integrazione politica, il completamento del mercato unico, la diminuzione degli ostacoli alla concorrenza e, per questa via, una crescita economica più elevata. Alla luce del Trattato di Lisbona, Jacques Ziller – in un saggio che si indirizza prevalentemente a politologi e a costituzionalisti non specialisti in diritto comunitario – analizza poi il sistema europeo della separazione dei poteri, o piuttosto dei “pasi e contrappesi” nel l’esercizio delle cinque “funzioni” del governo europeo: legislativa (From Rule Making to Law Making), esecutiva – di attuazione delle politiche comuni – di sorveglianza, direttiva – di indirizzo politico e programmazione – e organica, di sviluppo istituzionale. Infine Alessandro Scalpellini, anch’egli sulla base del Trattato di Lisbona e della nuova definizione di maggioranza qualificata da questo sanzata, mette in evidenza come i principali paesi aderenti (Germania, Francia, Regno Unito e Italia), si trovrebbero a subire – se agissero come singoli – una perdita significativa in termini di potere di voto, mentre trarrebbero vantaggio da un “gioco cooperativo”, cioè dal fatto di presentarsi in coalizione, assicurandosi in tal modo un potere di blocco.

I volume si apre con un saggio di Arturo Colombo, il quale ripercorre con ampiezza di riferimento la complessa vicenda dell’idea di Europa e del suo “fasce” programma politico e successivamente struttura istituzionale fra ombre e luci, echi e rinascita verso quella dimensione politica piena che sola può assicurare un durevole compimento. E si conclude con una riflessione di Guido Guidi, il quale, sulla scorta di Tocqueville e dell’esperienza statunitense, si sofferma – anche con riferimento al Trattato di Lisbona – sul tema delle caratteristiche identitarie dell’Europa e sulla necessità di meglio precisarne i principi.

S.B. e J.Z.
Summary - Through the critical and interpretative analysis of a wide group of essays and texts, which, especially during the last decade, have been directed to Europe and to the complex shaping and development of the European Union, the Author borrows an original image, suggested by José Ortega y Gasset since 1949: "Europe is like a union; lots of birds and one single flight" - in order to point out how the unification is still a "work in progress"; still open to different, or even alternative, solutions. As a matter of fact, someone, like Jeremy Rifkin, for example - privileges the role of the so-called "European dream", while someone, instead, blames with increasing concern "the eclipse of Europe", even identifying it as a "crisis and decadence of a civilization" phenomenon. But there is also someone who, even though worried for the incapacity, or impossibility, of present Europe to be a "real" power - besides the five presently operating powers in the world: United States, China, Russia, India and Japan - insists on the need, and urgency, to establish a "strong Europe", like Christian Saint-Elix- ne requires, as finally gained with a real federal-style supranational political system. Therefore, the issue is the re-launch of the brave project-programme, which, already during the first part of the fourties in the xx century, had defined the Emilio Rossi and Adolfo Spadolini's "free and unitary Europe manifest" (better known as "Venezia manifesto"), now re-creased also by (Joy Verhofstadt, just marking a "new Europe", desired to form the "United States of Europe". Of course, the recent "wiring" which required the transit from the Europe of 15 to the Europe of 25 and then of 27 (with even wider enlargement hypothesis), as requested, for example, by Turkey - presents again the eventually - or better still the opportunity, according to some thinkers - of committing one selves to the "bedrock research" of Europe - like Karl Lauren claims - which means setting against the present, and frail, "intergovernmental Europe", the strategy of a "variable geometry" Europe, also dedicated as a "two-speed" Europe.

II. POLITICO (Univ. Parma, Italy) 2008, anno LXXXIII, n. 3, pp. 61-96

CONCEPTUALISATION, OPERATIONALISATION, CUMULATION? EXPLORING THE FEDERALISM VARIABLE IN EUROPEAN POLITICS RESEARCH

by Michael Tatham

Introduction

Much of current Political Science literature devotes a considerable amount of attention to the challenge of understanding, explaining and predicting social and political outcomes. In the midst of key ontological and epistemological debates, the literature has been divided between "methodological individualism" which seeks to explain outcomes in terms of the interests and motivations of key actors such as bureaucrats, elites or voters, and variants of "institutionalism" which focus on structural explanations such as party systems, governments, parliaments or judicial systems.

Attempting a synthesis between methodological individualism and institutionalism, different kinds of "new institutionalism", which integrate assumptions relating to both actor-centered and institutionalist explanations, have emerged. Hence, a rich variety of "new institutionalism" has been put forth, ranging from historical institutionalism, to rational choice institutionalism, actor-centered institutionalism and sociological institutionalism. These new institutionalisms share some common ground but also fail to represent a unified theory about the role of institutions in the determination of social and political outcomes.

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Acknowledgements: The author wishes to thank Adrienne Herrnson, Michael Keating, Alexander Trechsel and Jacques Ziller for comments on various drafts of this paper. The usual disclaimers apply.

Though these new institutionalisms do not represent a single, coherent body of thought, they have generated some agreement that outcomes can be understood and analysed by applying what is sometimes called the "fundamental equation of politics" which argues that a combination of "preferences" and "institutions" best accounts for outcomes. This equation has been summarized by Charles Plott as follows:

Preferences x Institutions => Outcomes

Where preferences are what individuals want, institutions are the rules of the game through which collective decisions are made and outcomes are the result of the interaction between preferences and institutions which can equate to change (of players, policies or institutions) or status quo. Hainich and Münger further stress that this equation illustrates two of the most important principles of formal political theory, namely that if preferences change, outcomes can change, even if institutions remain constant, while if institutions change, outcomes can change even if preferences remain constant. Such an approach has been further theorised by Lake and Powell who have developed a "strategic choice approach" which assumes that actors (i.e. preferences and beliefs) and environments (i.e. actions available to the actors and the information structure) are analytically separable. Similarly to the fundamental equation of politics, Lake and Powell advocate two conceptual experiments. The first of these conceptual experiments varies the properties of the actors while holding the environment in which they interact constant. The second conceptual experiment varies the environment while holding the attributes of the actors constant.

This article focuses on the institutional element of the equation and more particularly on one specific institutional feature: federalism. Federalism is widely used as an institutional explanatory variable in much European political research because it is used to explore its relationship to democracy and conflict resolution; its effect on public sector efficiency and the goodness of fit between constituency preferences and delivered policies; its impact on EU law compliance; its effect on international relations and state sovereignty; on party system congruence; on the welfare state; or on political performance seriosus latet. Beyond its use as an explanatory variable to shed light on a particular phenomenon, federalism has also been used as an analytical tool to better understand - by analogy - the European Union itself. Insights from federalism then enable an enhanced understanding of the EU integration process, its opportunities and pitfalls, by using the cases of Germany, Switzerland, the

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The challenge of variable operationalisation

Operationalisation needs to reconcile the challenges of, on the one hand, the goodness-of-fit of the concept to the research question, and on the other hand, the replicability of research methods. Furthermore, there is an inevitable trade-off between the need to tailor concepts so that they fit the research question at hand, while simultaneously developing research tools which "travel" and can be applied to other research questions. As Figure 1 illustrates, operationalisation can be conceived as a three-phase exercise. One must first disaggregate the abstract concept into its component variables. These variables will in turn be transformed into measures for which empirical indicators or instruments must be found.

The question of the transparent and replicable operationalisation of federalism is the object of this article. Part of the challenge lies in the fact that federalism is an abstract concept. It is not directly empirically observable. There are two further hurdles to be overcome in such an operationalisation quest. The first one is that there is no agreement in the literature on federalism, on what federalism is and is not, and hence on whether a state is federal or not. Various authors come up with various definitions using diverse methodologies which are often hardly cumulative to such an extent that Lane and Ersson, for example, while trying to make sense of seven different federalism classifications, arrived at the de minimis conclusion that "combining the above listings of federalism, we may arrive at a list of federal states that no one would question. Such a certain set would include: Australia, Austria, Brazil, Canada, Germany, India, Malaysia, Mexico, Pakistan, Switzerland and the USA". For many other countries, such as Belgium, Spain, Italy, or even the UK and


18 M. TAYLOR, Federalism depuis ou ajustement marginal? L'impact de la déconfi-
research then implies an intellectual gymnastic which compels the researcher to accept a "Lockean/Platonic circularity" to "apprehend the real in terms of the ideal; and the ideal in terms of the real". It follows that instead of classifying countries in water-tight boxes, it is only possible to place them on a continuum curated at each end by the federal and the unitary ideal-type.

As suggested above, defining these ideal types or where one can place a country on such a spectrum has been a major challenge in the federalism literature. Typologies, classifications, dimensions and indicators are abundant, often diverse, not always cumulative and frequently relying on very diverse methodologies. The following section is a critical analysis, replication and refinement of such a typology. It seeks to highlight that transparent operationalisation and explicit sources allow for the amelioration of research tools and the cumulation of knowledge; two fundamental objectives in social science investigation.

2. Transparency & Cumulative research: an illustration

This article now turns to the practical question of the application of the above recommendations. In order to illustrate how these guidelines can be implemented concerning the operationalisation of the federalism variable, an existing typology is chosen, analysed and refined. This typology must achieve the dual feat of allowing concept travelling while avoiding concept stretching. Secondary criteria are that the typology should be parsimonious while, in fine, allowing the blant categorisation of countries on a federal/unitary continuum.

Many typologies fulfil these criteria. The most convincing ones, though, are those which blend two dimensions in their definition of the federalism ideal-type: a federal-unitary dimension sensu stricto, and a decentralised-centralised dimension. In this sense, the classification made by Kern along these two dimensions is appealing. Contrary
to other such typologies, it is replicable34 and rests on previous research. It not only seeks to identify federal systems, but also to distinguish them from unitary ones as many key features of federal and non-federal polities are not necessarily mutually exclusive.

Keman proceeds in three steps. First he constructs a unitary-federal index. Second, he constructs a similar centralisation-decentralisation index. Finally, he combines both these indexes to form a fourfold typology: federal-decentralised, federal-centralised, unitary-decentralised and unitary-centralised countries. The Figures 2 and 3 summarise his finding.

3. Creating a Unitary-Federal Continuum

To calculate an aggregate unitary-federal score, Keman35 uses factor analysis based on four distinct indicators. It is first necessary to scrutinise and verify its reliability and internal coherence, he it theoretically, methodologically or statistically. These three types of examination come to the same: checking the logic of the typology's design with view to improvement. The four indicators are examined below (Table 1).

1. Autonomy. By autonomy, Keman means the relationship between "institutional autonomy versus delegated governance" as developed by Lane and Ersson.36 This "institutional autonomy" indicator is itself a sum of four indicators: degree of federalism (0-3), special autonomy or home rule (0-2), functional autonomy (0-2), and local government discretion (0-3). These scores have been calculated for EU 15, plus Iceland, Norway and Switzerland.

Keman's use of this index is problematic. First, these scores are arbitrary. More crudely, they are impressionistic. In this sense, they are clearly not easily replicable, even by their own authors, let alone by someone else. This does not mean that the table is flawed or not useful: it is perfectly valid and valuable. It is, however, difficult to complement as it is based on the discrete, subjective judgement of its authors. However, Keman does complement it himself for the non-European countries such as Australia or the USA. Though not invalidating this is sub-optimal.

The second problem entailed by the use of this aggregate index as one of four components of a unitary-federal scale, is that Lane and Ersson explicitly indicate that this index in fact measures decentralisation. They write p.186, that "The overall institutional autonomy score adds up the intuitive scores for the four dimensions of decentralisation". In other words, the "degree" of federalism, special autonomy or home rule, functional autonomy, and local government discretion, that Lane and Ersson intuitively measure, all correspond to dimensions of decentralisation. This measure, however, is here used as a component of a unitary-federal scale, rather than a decentralisation scale. Keman justifies this choice by explaining that "autonomy and balance refer more to what extent the national state, or the 'centre', is capable of governing independently without the interference of other political actors"37. This usage and rebranding of this originally "decentralisation" variable does shed light, however, on the somewhat circular nature of the unitary-federal scale: indeed, by using Lane and Ersson's "institutional autonomy index", a factor score of federalism is created through an index which already includes a "federalism" measure thus leading to a tautological measure.38

34 Unlike other typologies, such as Lijphart's table of degrees of federalism and decentralisation in thirty-six democracies (1945-90), which provides for each country one decimal point but unfortunately impressionistic values. See A. Lijphart, "Patterns of Democracy: Government Forms and Performance in Thirty-Six Countries", Yale University, 1999, p. 189.
35 KEMAN, in, p. 205, table 9.1, reproduced in Table 1.
36 Id. in, p. 204.
2. Balance. By balance, Keman means the balance between the executive and legislative as developed by Lipshart. It is not clear, however, how the scores have been derived from Lipshart's work. The sources indicated do not enable understanding of how the individual country scores were calculated. Also, while Table 9.1 p. 205 indicates Lipshart as its data source, the previous page reports Lipshart in neither book have I found the data used for this variable.

3. Sovereignty. By sovereignty, Keman means the "sovereignty of the constituting parts versus political dominance of the national 'centre'". This indicator is borrowed from Schmidt. Again, this indicator of "institutional constraints of central state government" is the sum of a series of different indicators. Schmidt specifies that this index is an additive index composed of six dummy variables (1=constraints, 0=else). It is based mainly on Gallagher, Laver & Mai, Lipshart, Leech and Busch. The variables are the following: 1. constraints due to policy harmonisation in the European Union (EU membership in most of the period under study = 1, else=0), 2. degree of centralisation of state structures (1=federalism, 0=central), 3. difficulty of amending constitutions (1=very difficult, else=0), 4. strong bicameralism (1, else=0), 5. central bank autonomy (1, else=0) and 6. referendum (1=frequent, 0=rare).

The use of this index is, however, problematic. First, just as for the Autonomy index, one component of the Sovereignty index is the "degree of centralisation of state structures". Be this variable understood as an indicator of federalism or of decentralisation, it is either incoherent or circular, i.e. it should either be considered as a part of the decentralisation scale in Table 9.2 or it should be omitted as it is redundant. Second, though the first four components of this Sovereignty index can be legitimately understood as components of a unitary-federal scale, it is not clear how central bank autonomy and the frequency of referendum usage contribute in any way to a unitary-federal scale. It is perfectly clear that they are reasonable measures of "institutional constraints of central state government" and, in fine, "sovereignty" as Keman terms it. However, if high values indicate federalism then the index scores should be recalculated, omitting central bank autonomy and referendum usage. Indeed, no theoretical justifications are given to include these variables in the measure of federalism.

4. Barriers. By barriers, Keman means the "institutional barriers to national [i.e. central government] dominance" as developed by Colomer. This Barriers indicator is a sum of four indicators. To measure "institutional pluralism versus majoritarianism" as Colomer originally terms his index, he adds up the following four indicators: party system (as in the number of parties with parliamentary seats, which he terms "the effective number of parties", 0-2), bicameralism (symmetrical, asymmetrical or unicameralism, 0-2), whether the president is elected or not (broken down in two categories: semi-presidentialism, parliamentarism, 0-1), and finally decentralisation (measured as the proportion of public expenditure in the hands of regional governments, 0-2).

Unfortunately some methodological issues arise from the use of this index score as a component variable of the unitary-federal scale. The first issue is that this index is composed of a "decentralisation" variable. Thankfully, "decentralisation" is here more narro...
why defined as the proportion of public expenditure in the hands of regional governments. Such a restrictive operationalisation implies that the degree of overlap with the other decentralisation variables present in the overall unitary-federal factor score will be minimum. However, the use of this variable overlaps with other variables used in Table 9.2 to calculate the decentralisation factor score, especially Decentral Revenues and Decentral Transfers.

The second issue again concerns variables which were legitimate in the construction of the original index but have not been justified in their current use. Indeed, though the "party system" and the presence of an "elected president" are important features determining institutional pluralism (or lack thereof), they are not, at the theoretical level, components of federalism or unitarianism. And if they are, then theoretical justifications should be clearly outlined. If not, these two variables should be omitted from the index score. Considering that the "decentralisation" variable is also problematic and that the last of the four variables, "bicameralism", is already present in the Sovereignty index, then the Barriers indicator effectively becomes empty, null and void. Theoretically (c.f. the "party system" and "president elected" variables) and pragmatically (c.f. the "bicameralism" and "decentralisation" variables) this Barriers indicator could be altogether deleted from the factor analysis.

To conclude with the Barriers variable, one can wonder whether Keman's interpretation of it as "an additive index of constitutional safeguards for subnational governance and modes of representation" in which "high values indicate higher barriers against national dominance" is a fair reflection of what the original index is. It is difficult to understand how an increase in the number of parliamentary parties, or having an elected president (which all contribute to inflate the Barriers aggregate score) contribute to higher barriers against national (i.e. central) dominance... The short-cut of equating "institutional pluralism" to "constitutional safeguards for subnational governance and modes of representation" should be theoretically justified. Probably because of lack of space no justification is given. It is a pity as it weakens the author's overall argument.

In sum, it appears - as Table 2 suggests - that out of the four indicators selected to compute the unitary-federal factor score, the Barriers one could be altogether deleted. The Sovereignty indicator could conserve its EU membership, "difficulty of amending constitutions" and "strong bicameralism" variables, though it can be argued that these last two variables do, in fact, overlap with each other: strong bicameralism being a component of the difficulty of amending constitutions. No theoretical justification is given as to why central bank autonomy and use of referenda is also included. The Autonomy indicator would conserve its "special territorial autonomy or home rule", "functional autonomy" and "local government discretion" variables. Its "degree of federalism" variable should be excluded. Finally, the Balance indicator has to be de facto overlooked as its sources are not clear. An internally coherent factor score would thus only conserve six sub-variables out of an identifiable fourteen. Over half of the original sub-variables could thus be excluded on theoretical grounds. This might be an explanation for some of the factor score's most surprising results, such as giving Italy (in year 2000) a federal score which is four times greater than that of Austria, while Spain is clearly categorised as a unitary rather than federal country.

When re-running the factor analysis with all four original variables, the correlation matrix highlights that the relationships between these variables is always positive and usually very strong and significant at least at the .05 level. There are, however, two exceptions:

- Balance and Autonomy which only have a low correlation coefficient of .11 which is not significant at the .05 level.
- Barriers and Balance which hardly correlate at all with each other with a lame score of .03 which is also not significant at the .05 level.

These two correlation coefficients suggest that the Balance variable might not be suited for factor analysis with the other three variables. This initial hint is further confirmed by the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) which, with a value of .45 indicates that, with the present variables, factor analysis is probably not appropriate. Examination of the diagonal elements of the anti-image

53 Keman, in 207.
54 For example, Austria is coded as a semi-presidential system, along with France, Finland, Portugal, Ireland and Iceland. Similarly, federal countries such as Switzerland or Belgium have the maximum score on the party system variable, along with unitary Finland and Denmark, while federal Germany, Austria or Spain have the minimum score, along with unitary Ireland, Britain or Greece... Even though most characteristics of federalism are not necessarily absent from unitary states, the party system or presidential indicators seem to be relatively unrelated to either federalism or unitarianism. It is not clear why these indicators are assumed to belong to either federal or unitary systems.
correlation matrix clearly indicates that the Balance variable should be excluded from the analysis. The anti-image correlation matrix also suggests that the Sovereignty variable is a borderline case. Finally, the communalities extraction values spare the Sovereignty variable but further condemn the Balance variable with a mediocre .15 while all other variables are comfortably above .7. The last cause for concern in the replication of Kernan’s reported method of factor analysis is that the percentage of non-redundant residuals with absolute values superior to .05 is 100% which is a source of concern.

In an attempt to statistically improve the typology, I re-ran the factor analysis but without specifying the number of factors. From this analysis, two components were extracted. The first one composed of Sovereignty, Autonomy and Barriers. The second composed of Balance and Sovereignty. However, the component score coefficient matrix clearly indicates that the Balance variable is unmistakably an outlier. This is confirmed by the below plot (Figure 4) which unambiguously shows that the Balance variable is a clear outlier, sharing little in common with the other three variables which are all closely clustered together on the Component 1 dimension. Also, from a theoretical point of view it is not totally clear why the balance in the “relations between parliament and government” should be considered as an indicator which would distinguish unitary systems from federal systems. Some unitary systems have very strong parliaments while some federal systems have reasonably strong governments.

It then makes sense to run another factor analysis but excluding the Balance variable for the theoretical and statistical reasons outlined above. In this analysis, the correlation matrix is satisfactory, the determinant is high (.18) indicating that there are no concerns over multicolinearity issues, the KMO measure is good and indicates that factor analysis should yield distinct and reliable factors. This is confirmed by the diagonal elements of the anti-image correlation matrix which are all well above .5. Meanwhile Bartlett’s test of sphericity is significant at the .01 level (which tells us the R-matrix is not an identity matrix). The communalities extraction values are all satisfactory. Finally, this more parsimonious and coherent model explains 81.3% of total variance – an improvement compared to Kernan’s factor R² of 66.4%.

Seeking to establish whether such an improved model reaps different results from the original model, I have produced a country unitary-federal bar graph (Figure 5) It reaps the following results: Australia, Belgium, Canada, Switzerland, Germany, Italy and the USA are clearly classified as federal (though Italy only just makes it with an almost neutral score of .06), Denmark, Finland, France, Ireland, the Netherlands, Norway, Austria, Portugal, Spain, Sweden and the UK are classified as unitary, though one should remark that Austria should in fact be in the same category as Italy, as a neither-unitary-nor-federal-country, with a near neutral score of -.02. Classification differences with Kernan’s original table are signalled with a star* – which only concerns Austria, which sees its score evolve from .05 to -.02. A .07 change which is quantitatively negligible considering the variable’s standard deviation of 1.

4. Creating a Centralisation-Decentralisation Continuum

Kernan is less expansive on his choice of indicators to calculate his decentralisation factor score. He specifies that “a number of indicators were used that reflect the extent to which on other levels of government than national government not only revenues and expenditures are not only collected independently, but also (more or less) autonomously allocated”58. Six indicators are included in his centralism and decentralisation table (see Table 3). These indicators are examined below.

1. **Public sector.** By public sector, Kernan means the public expenditures of general government in GDP percentage as reported by Lane, McKay & Newton59. The data were not found in the source indicated.

2. **Central revenues.** By central revenues, Kernan means the total tax revenues of central government in GDP percentage as reported by Lane et al60. These data strictly correspond to the ones found in Table 5.8, p. 78 of the source quoted.

3. **Decentral revenues.** The decentral revenues data correspond to the ones found in Table 5.14, p. 84 of Lane et al61, entitled “state and local government: taxes as a percentage of GDP”.

4. **Decentral transfers.** The decentral transfers data correspond to the one found in Table 5.12, p. 82 of Lane et al62, entitled “central government: transfers to other sectors of general government as a percentage of GDP”.

58 Id. at in. 206, emphasis original.
60 Id. at.
61 Id. at.
62 Id. at.
It is not clear why this variable has been re-labelled by the author as "decentral transfers" with a note describing it as "total tax revenues of non-central government in % GDP"\textsuperscript{63}, while according to Lane et al., these data belong to "central government" and correspond to "transfers to other sectors of general government as a percentage of GDP". In a note, Lane et al. stress that "central government consists of all departments, offices, organizations, and other bodies classified under general government which are agencies or instruments of the central authority of a country, except separately organized social security funds"\textsuperscript{64}. Clearly these transfers do not correspond to transfers to sub-central (regional or local) government and certainly not to "non-central government".

5. Fiscal difficulty. By fiscal difficulty, Keman means "the impact of the fiscal pressure of central government on total tax revenues"\textsuperscript{65}. Castle\textsuperscript{66}, who is cited as a source, summarises this statistic as "the percentage by which the share of central government taxes would have to fall in different countries in order to secure a 1 percent of GDP increase in demand"\textsuperscript{67}. Castle considers Fiscal Difficulty as one of five measures of decentralisation.

6. Fiscal centrality. By fiscal centrality, Keman means the degree of fiscal centralisation. He indicates that he used Lane et al. data to compute a factor score of central and non-central government expenditure as a percentage of GDP. I assume table 5.4 ("General government: government final consumption as a percentage of GDP", p. 74) and table 5.15 ("State and local government: final consumption as a percentage of GDP", p. 85) which can indeed be found in Lane et al.\textsuperscript{68}, were used.

To summarise, this second factor dimension appears internally more coherent than the first (i.e., Unitary-Federal), in terms of compatibility of different data. This is mainly because there are only two different sources of data, as opposed to four different sources of aggregate data for the previous factor score.

63 KEMAN, in 207, emphasis added.
64 LANE, et al., Political Data Handbook OECD Countries, 82., emphasis added.
65 Id. CATALDI, Federation, fiscal decentralisation and economic performance, in see
66 Id. at in 181.
67 Id. at in 181.
Transfers = 76, p < 0.01. These are all logical and comforting results, all of which are statistically significant at the 0.05 level at least. High correlation scores are welcome in factor analysis, and mild multicollinearity is not a problem. The cause for concern lies in the very high correlation coefficients reported for certain pairs of variables, especially the following:

- Fiscal Centrality and Central Revenues = .98. This statistically significant correlation (p < 0.001) is almost a perfect correlation.
- Fiscal Difficulty and Central Revenues = - .87 (p < 0.001). Similarly, though the correlation is this time negative, it is strong enough to suggest multicollinearity.
- Fiscal Difficulty and Fiscal Centrality = - .89 (p < 0.001). Again, though the correlation is negative, it is strong enough to suggest multicollinearity.

Considering these correlation coefficients, one could wonder if it might have been advisable to either confine the Fiscal Centrality and Central Revenues variables or to choose one over the other, as they are almost identical. Logically, they both correlate very highly with Fiscal Difficulty. One might thus wonder if the model would not gain by omitting the Fiscal Difficulty variable altogether. These multicollinearity findings in the correlation matrix are confirmed by the value of the determinant which is 1.15E-07. This determinant value suggests that there are multicollinearity, or worse, singularity problems within the data. Indeed, the determinant value should be greater than 0.00001. In this case the determinant value is clearly under this threshold. Fiscal Centrality and Central Revenues seem to indicate a singularity problem (R > 0.9) while Fiscal Difficulty and these two variables point to a multicollinearity problem (R > 0.8). A linear regression, plugging in these three variables, the variance inflation factor (VIF) and tolerance value of the variable excluded from the model will often come close to collinearity thresholds (i.e. a VIF > 10 and a tolerance close or < 0.2).

These findings are confirmed when one re-runs the factor analysis (still using varimax) but letting the number of components a priori undetermined. As shown in the above plot (Figure 6), two components clearly emerge. First, a cluster comprising Public Sector, Decentral Transfers, Fiscal Centrality and Central Revenues. And a second cluster more loosely connecting Decentral Revenues and Public Sector. This plot enables us to observe that Fiscal Centrality and Central Revenues are so closely huddled together that they almost fuse in a single point, while the Fiscal Difficulty variable is clearly isolated, belonging to neither of the two components: with only a highly negative loading on component one and a weak loading on component two. Similarly — though to a lesser extent — the Decentral Revenues variable is somewhat of an outlier. Considering that the Fiscal Difficulty variable poses problems because of multicollinearity, there are good grounds to exclude this variable altogether. For parsimony's sake, leaving out the Decentral Revenues variable would not harm the overall model. This leaves us with the component one variables which cluster nicely altogether. The fact that the Decentral Transfers variable is included in a cluster composed of the Public Sector, Central Revenues and Fiscal Centrality variables, confirms our assessment that Kemeny mislabelled this variable: it is measuring central government transfers to "general government which are agencies or instruments of the central authority of a country". In this sense, the cluster which has formed on the component one dimension could be labelled as a "centralisation" measure (as opposed to Kemeny's decentralisation factor).

As a summary, Table 5 lists the various problems encountered with the six centralisation and decentralisation indicators. What this table tells us is that, if one excludes variables which pose methodological problems and merges multicollinear variables together, one ends up with parsimonious and coherent model consisting only of the factor score of Public Sector, Central Revenues, Decentral Transfers (which should be renamed central transfers) and Fiscal Centrality. When running this factor analysis, only one dimension emerges naturally. Despite the quasi singularity of Fiscal Centrality and Central Revenues, the overall determinant is well above 0.00001, suggesting multicollinearity will not harm the general model. The overall explained variance is of 74.2%, an improvement on Kemeny's reported R² score of 63.7%. The Kaiser-Meyer-Olkin measure of sampling adequacy value of 0.714 is acceptable, indicating that patterns of correlations are relatively compact and should yield distinct and reliable factors. This is confirmed by examining the diagonal elements of the anti-image correlation matrix which are all well above the 5 threshold, while the Bartlett measure (which tests the null hypothesis that the original correlation matrix is an identity matrix) is statistically significant at the 0.01 level (therefore the R-matrix is not an identity matrix and factor analysis is appropriate). The communalities extraction values — except for the Public

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69 Id. at 82.
Sector variable (413) are all satisfactory. The overall factor score using these four indicators obviously correlates negatively with Keman’s factor score measuring decentralisation (Kendall’s tau -3.9 and Spearman’s rho - .57 all significant at the .05 level, two-tailed). Indeed, with the four variables included, this factor score is a measure of centralisation rather than decentralisation. The bar chart displaying this factor score for each country is shown in Figure 7. Interestingly, this factor score classifies Australia, Canada, Switzerland, France*, Germany, Austria, Portugal*, Spain, Sweden and the USA as decentralised countries, while Belgium, Denmark*, Finland, Ireland, Italy, the Netherlands, Norway* and the UK are considered as centralised states. The divergence between this classification and Keman’s original classification is marked with a star.

Conclusions

To curtail this examination, I reproduced Keman’s final scatterplot with the amended versions of his original factor scores. The results are visually represented in Figure 8 and in Figure 9. As stated above, the original decentralisation factor score is now a centralisation one, while the unitary-federal factor score remains coded in the same direction. One can then produce a revised version of his fourfold typology:

Type 1: Federal decentralised = Australia, Canada, Germany, USA and Switzerland.

Type 2: Federal centralised = Italy & Belgium.

Type 3: Unitary decentralised = Sweden, Austria (1), Spain, France (4) and Portugal (4).

Type 4: Unitary centralised = Denmark (3), the Netherlands, Norway (3), Finland, Ireland and the UK.

I have reported the differences between this typology and Keman’s original one by indicating in brackets the country’s original type. There are differences for 5 out of 18 countries. In this typology three countries deserve particular mention. First is the case of Austria, which belongs to a fifth type: neither-federal/unitary-nor-centralised/decentralised. Indeed, with a score of .05 on the centralisation dimension, it is neither clearly centralised nor decentralised and with a score of -.02 the same can be said on the unitary-federal dimension. Being almost perfectly at the centre of the scatterplot, the slightest variation in the data would make it easily shift from any type to any other type. Sweden has the same problem as Austria but only on the centralisation dimension. It is very clearly a unitary state but only qualifies as decentralised by the slightest of margins, a mere -.03 score. Again a slight variation in data could provoke a migration from Type 3 (unitary decentralised) to Type 4 (unitary centralised). The last borderline case is Italy which, unlike Sweden and Austria is clearly centralised, but only marginally federal with a diminutive .06 score. Again, the slightest variation on the Autonomy, Sovereignty or Barriers variables would transform Italy from a Type 2 to a Type 4 country.

Although this amended typology differs from Keman’s, in fine it reinforces his point that “it can be concluded that the degree of federalism of the polity and decentralisation of governance are neither identical nor strongly interrelated in a straightforward manner”77. Indeed, the R² that I calculated through linear regression analysis using Keman’s original factor scores indicated a value of .56 (p<.001) and therefore a reasonably strong relationship between federalism and decentralisation (the federalism variable accounting for 56% of variance on the decentralisation variable). However, the R² for the amended typology (using my own factor scores) has dropped to .37 (p<.05) indicating a rather medium relationship between federalism and centralisation (the federalism variable accounting for 37% of variance on the centralisation variable). In this sense, my amendments bolster Keman’s general claim. Indeed, Keman argued that “the apparent distinction between federal and unitary democratic states is less self-evident and straightforward than is often suggested in the literature on federalism”78. He further and wisely pointed out that the features of federal and unitary states are often not mutually exclusive but might be shared to a certain extent – an extent one might be able to quantify and represent on a continuum – and that existing classifications of federal states are often clash in their assessments and overall muddle the issue rather than clarify it. I could not agree more with these statements. Keman based the scalability of federalism and decentralisation according to two dimensions, understood as the right to act (centralisation/decentralisation) and the right to decide (federal/unitary). He additional criticised

77 KEMAN, in: 206., emphasis original
78 Id. at 99, 202.
existing typologies such as Lijphart’s for being “too formal and too constitutionally driven” as well as confusing and mixing elements which “belong to the dimension of centralisation-decentralisation” with those belonging to a unitary-federal continuum.

This article has sought to show that transparency in operationalisation and data sources enables the re-use, travelling and improvement of analytical tools such as Keman’s federalism typology. Though the initial typology can be criticised, its design enables researchers to amend it according to their needs, hence rendering possible the refinement of analytical tools and thus the cumulation of knowledge in social science research. Most of the criticism of the original typology is summarised in Tables 2 and 3. It ranges from inadequate labelling of indexes, to duplicates in the disaggregate variables of the various indexes and inclusion of irrelevant variables. Statistical analysis of the indicators on each dimension also pointed to some multicollinearity problems as well as the forced inclusion of some indicators in factor scores to which they do not seem to statistically belong to. This would have been less of a problem if these indicators had been theoretically justified. Certainly because of lack of space, little theoretical indication as to why these particular indicators were chosen for each dimension, why they were chosen over other indicators available in the literature, and why this number of indicators was chosen was given. Despite these drawbacks, this typology could be replicated and amended because of the public availability of the data and its methodological transparency. As Keman himself wrote “The other objection I have put forward with respect to the division often made in the literature between federal and unitary systems is that the conceptualisation tends to be fuzzy (...) blurred, if not contaminated.” Such conceptual rigour is oft difficult to implement, however, its attainment is greatly enhanced by research which is both explicit and replicable in its design. This article has shown how an analytical tool (in this case a federalism typology) can be theoretically and statistically improved to hopefully enhance its accuracy and further researchers in their quest for a better understanding of their social and political environment.

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53 Lijphart, Patterns of Democracy, Government Forms and Performance in Thirty-Six Countries.
54 Keman, in, 202, 203.
55 Id. at in, 204.
56 Was the goal a parsimonious model or to construct an exhaustive measure which would seek to account for maximum variance?
57 Keman, in, 206.
Figure 2 - Reproduction of Komm's scatterplot of unitary federal and centralization-decentralization scores (Y = centralization-decentralization continuum; X = unitary-federal continuum)

Figure 3 - Reproduction of Komm's scatterplot of unitary federal and centralization-decentralization scores with fitted regression line (Y = centralization-decentralization continuum; X = unitary-federal continuum)

Linear Regression with 95.00% Mean Prediction Interval and 95.00% Individual Prediction Interval

centralization decentralization continuum = 0.21 + 0.87 * United
R-Square = 0.60
Table 9.1 Features of federal and unitary democratic states

<table>
<thead>
<tr>
<th>Country</th>
<th>Autonomy</th>
<th>Balance</th>
<th>Sovereignty</th>
<th>Barriers</th>
<th>Federal (Lijphart)</th>
<th>Federal (Maddex)</th>
<th>Unitary-federal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>6</td>
<td>-1</td>
<td>5</td>
<td>4</td>
<td>-0.99</td>
<td>3</td>
<td>0.25</td>
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<td>-0.37</td>
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<td>3</td>
<td>5</td>
<td>-1.22</td>
<td>3</td>
<td>1.22</td>
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<td>2</td>
<td>-0.65</td>
<td>1</td>
<td>-0.25</td>
</tr>
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<td>0</td>
<td>3</td>
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<td>1</td>
<td>-0.96</td>
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<td>1</td>
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<td>-0.26</td>
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<td>-0.23</td>
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<td>-0.89</td>
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<td>6</td>
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<td>1</td>
<td>1.49</td>
<td>1</td>
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<td>5</td>
<td>6</td>
<td>-1.62</td>
<td>3</td>
<td>1.44</td>
</tr>
</tbody>
</table>

Mean: 5.89; SD: 2.35; Range: 7.21-9.15; 0.004

Source and note: autonomy additive index of non-central independence, based on Lueb 1998 and Ersson 1999; (high values indicate more independence from the central state).
Sovereignty: additive index of central government's powers in national governance and modes of representation, based on Lijphart 1996: 12 (high values indicate higher barriers against national dominance).
Central government additive index of power-sharing features in democracies, based on Schmidt 1990b (high values indicate stronger formal powers at the sub-national level).
Federalism: scale of federalism as developed by Lijphart and taken from Schmidt 1996 (''federal'' = unitary).
Federal scores of federalism as provided in the respective constitution, based on Maddex 1998: 3 (federal); Maddex 1998: 3 (unitary).
Unitary-federal: scale of federal unitary features by means of regressive factor analysis [R2 = 66.6%: Largest, One solution] based on the latest variables except for Federalism (Lijphart) and Federal (Maddex) (+ = more federal; - = more unitary).
(Standard deviation.)

Table 2 - Summary analysis of Kemeny's indicators used to compute his unitary-federal score

<table>
<thead>
<tr>
<th>Kemeny's Unitary-Federal indicators</th>
<th>Autonomy</th>
<th>Balance</th>
<th>Sovereignty</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original name</td>
<td>&quot;institutional autonomy index&quot;</td>
<td>&quot;degree of federalism&quot;</td>
<td>&quot;degree of centralization of state structure&quot;</td>
<td>&quot;institutional pluralism versus majoritarianism&quot;</td>
</tr>
<tr>
<td>Indicator's original components</td>
<td>&quot;functional autonomy&quot;</td>
<td>&quot;political stability&quot;</td>
<td>&quot;prerogatives of national government&quot;</td>
<td>&quot;functional autonomy&quot;</td>
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<tr>
<td>&quot;local government discretion&quot;</td>
<td>&quot;strong bicameralism&quot;</td>
<td>&quot;democratization of public administration&quot;</td>
<td>&quot;central bank autonomy&quot;</td>
<td>&quot;interpretation***&quot;</td>
</tr>
</tbody>
</table>

Legend:
* = problem with circularity (methodological) or should be part of the central-decentral factor
*** = no theoretical justification of why this variable should be considered as a component of the unitary-federal factor score
*** = overlap with variable present in another index used to compute the factor score.

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Figure 4 - Component plot of Keman’s unitary federal factor analysis re-run without specifying the number of components to be extracted (all original variables included, varimax)

Figure 5 - Unitary federal bar graph using the scores from the re-run factor analysis excluding the Balance variable (Tariffs)
### Table 9.2: Indicators of centralism and decentralization in democratic states

<table>
<thead>
<tr>
<th>Country</th>
<th>Public sector</th>
<th>Central revenues</th>
<th>Decentral revenues</th>
<th>Fiscal difficulty</th>
<th>Fiscal centralisation</th>
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<td>22.2</td>
<td>6.2</td>
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</tr>
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<td>7.9</td>
<td>8.9</td>
<td>8.0</td>
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<td>Canada</td>
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<td>13.0</td>
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<td>5.5</td>
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<td>14.9</td>
<td>19.5</td>
<td>2.5</td>
</tr>
<tr>
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<td>45.4</td>
<td>22.6</td>
<td>9.7</td>
<td>12.3</td>
<td>5.8</td>
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<td>49.9</td>
<td>18.1</td>
<td>4.0</td>
<td>1.9</td>
<td>4.7</td>
</tr>
<tr>
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<td>11.4</td>
<td>3.5</td>
<td>6.7</td>
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<td>8.7</td>
<td>3.1</td>
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<td>1.8</td>
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<td>4.4</td>
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<td>3.4</td>
</tr>
<tr>
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<td>9.8</td>
<td>12.1</td>
<td>3.5</td>
</tr>
<tr>
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<td>5.5</td>
<td>1.4</td>
<td>4.3</td>
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<td>4.8</td>
<td>9.5</td>
<td>6.2</td>
</tr>
<tr>
<td>Sweden</td>
<td>59.3</td>
<td>19.0</td>
<td>15.2</td>
<td>5.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Switzerland</td>
<td>52.3</td>
<td>21.8</td>
<td>11.4</td>
<td>1.8</td>
<td>1.6</td>
</tr>
<tr>
<td>UK</td>
<td>58.1</td>
<td>27.4</td>
<td>0.9</td>
<td>9.1</td>
<td>3.4</td>
</tr>
<tr>
<td>USA</td>
<td>54.6</td>
<td>11.3</td>
<td>0.5</td>
<td>3.8</td>
<td>7.9</td>
</tr>
</tbody>
</table>

- **Mean**: 46.3  (21.1  7.2  5.0  4.8  -0.001  0.31)
- **SD**: 8.0  (5.6  4.9  4.9  2.1  1.6  0.90)
- **Range**: 55.8  (23.5  14.5  18.1  8.50  3.66  2.79)

SOURCES AND NOTES:
- Public sector = public expenditures of general government in % GDP (source: Lane et al. 1997).
- Central tax = total tax revenues of central government in % GDP (source: Lane et al. 1997).
- Decentral tax = tax revenues of non-central government in % GDP (source: Lane et al. 1997).
- Fiscal difficulty = taken from Cattel (in this volume) indicating the impact of the fiscal pressure of central government on total tax revenues (the lower the value, the higher the fiscal pressure).
- Fiscal centralisation = degree of fiscal centralisation (factor scores of central and non-central government expenditures as a % of GDP (source: Lane et al. 1997).

**Decentralisation** = based on factor analysis of non-central public expenditures and revenues ($R^2$=0.76; Varimax, One solution); + = decentralised, and - = centralized.

**SD** = standard deviation.
Table 5 - Summary analysis of Keman’s indicators of centralism and decentralisation

<table>
<thead>
<tr>
<th>Indicator name</th>
<th>Public Sector</th>
<th>Central Revenues</th>
<th>Decentral Revenues</th>
<th>Decentral Transfers</th>
<th>Fiscal Difficulty</th>
<th>Fiscal Centrality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original name</td>
<td>Not Found</td>
<td>&quot;Central governmenent's tax as a percentage of GDP&quot;</td>
<td>&quot;State and local government's tax in a percentage of GDP&quot;</td>
<td>&quot;Central government's revenue transfer to other sectors of government in a percentage of GDP&quot;</td>
<td>&quot;Reduction in central government's revenue share (…) required to access a 1 percent of GDP increase in demand&quot;</td>
<td>&quot;General government: final consumption as a percentage of GDP&quot; &amp; &quot;State and local government: final consumption as a percentage of GDP&quot;</td>
</tr>
</tbody>
</table>

Legend:
* = mismatch between original data and Keman's reshaping
** = multicollinearity problems

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82 Lafferty et al., Political Data Handbook OECD Countries.
83 Id. at.
84 Id. at.
85 Id. at.
86 CASTLES, in.
87 LAPP et al., Political Data Handbook OECD Countries.
Riassunto - L’importanza del federalismo, tanto come variabile esplicativa quanto come trascrizione analitica essenziale per promuovere la nostra comprensione dell’Unione Europea e degli Stati che la compongono, svolge il problema di identificare e definire il federalismo stesso per quello che è oggi. Il lavoro si propone innanzitutto di evidenziare l’attenzione sulla difficoltà di definire concettualmente e di rendere operative variabili come, appunto, il federalismo; intende inoltre promuovere l’utilizzo di metodi di ricerca chiari e replicabili, che rendano possibile l’aumento delle conoscenze attraverso l’affinamento degli strumenti analitici utilizzati. A questo scopo il lavoro sottolinea, in primo luogo, le sfide da affrontare, quando si intraprendono ricerche sul federalismo, allo scopo di rendere operative le variabili. Successivamente si approfondisce l’analisi della tipologia del federalismo sviluppata da Keesen, con il proposito di migliorarla attraverso una critica costitutiva. Già alla sua nascita chiara e replicabile telle tipologie, il lavoro si propone una versione più coerente ed efficiente, mettendo in rilievo i vantaggi di programmare di ricerca con le caratteristiche di quello elaborato da Keesen, al fine di promuovere il progresso delle ricerche sociopolitiche. Il lavoro intende soprattutto mettere in evidenza come il fatto di disporre di concetti operativi e di fonti esplicite consenta di migliorare gli strumenti di ricerca e di favorire l’aumento delle conoscenze; due obiettivi fondamentali quando si effettuano ricerche nel campo delle scienze sociali.
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