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Families of Nations and Public Policy

HERBERT OBINGER AND UWE WAGSCHAL

Employing cluster analysis, this article reconsiders a concept formulated by Francis G. Castles that stresses the existence of four families of nations, which markedly differ in respect of public policy-making. For two policy fields – social and economic policy – the hypothesised families of nations can be shown to exist, and they are quite robust and stable over time. Cluster analysis also reveals different paths towards modernity. On the one hand, there are more state-oriented versus more market-oriented models of public policy-making; on the other, there is a cleavage in public policy-making between rich countries located at the centre and somewhat poorer countries located at the periphery.

In 1998, Francis G. Castles published a major book that provides a comprehensive analysis of public policy development in the post-war era. One objective of the book is to reveal sources of variation and different patterns of public policy in 21 highly industrialised and democratic OECD countries, including the three democratic newcomers in southern Europe. More specifically, Castles sought to identify families of nations and associated trajectories of public policy contingent on common cultural, historical and geographical features.¹ Castles' analysis aims to show the general patterns rather than detailed nuances of particular public policies and to capture differences and similarities between different policy areas.² A broad range of factors is considered in explaining post-war public policy³ and partisan theory; institutionalist, cultural as well as socio-economic approaches are combined to analyse variations of public policy in 12 policy areas. The book is, thus, an ambitious attempt to connect political-institutional variables and socio-economic indicators with different outcome variables. To simplify, from this analytical point of view, socio-economic variables provide resources to act, whereas incumbent parties choose different courses of action according to the preferences of their constituencies; in turn, the latter can be blocked or facilitated by political institutions, policy inheritance, cultural legacies and supranational organisations.

In Castles' view, the post-war era is characterised by different routes through and towards modernity. This diversity of post-war transformations

in public policy-making is captured by the notion of a 'fragmented modernity'. Taking T.H. Marshall's three-staged modernisation theory as point of reference, Castles' analysis focuses exclusively on the last stage of the modernisation process, which is characterised by the extension of social rights. The fracture lines of this fragmented modernity correspond to different families of nations. Specifically, four families of nations are distinguished,⁴ namely:

1. an English speaking family of nations including Australia, Canada, Ireland, New Zealand, the United Kingdom and the United States;
2. a Continental family of nations consisting of Austria, Belgium, France, Germany, Italy and the Netherlands;
3. a Scandinavian family of nations consisting of Denmark, Finland, Norway and Sweden; and
4. a Southern family of nations comprising Greece, Portugal and Spain.

Only Switzerland and Japan do not fit neatly into any of these four families. For Japan, it is argued that it is (currently) the only country from the Asian world that has joined the club of the affluent western countries in terms of per capita income and democratic rule. At the same time, Japan shares many of the cultural legacies from the Asian world, which still shape contemporary policy outcomes. As regards social policy, Esping-Andersen⁵ has pointed to a strong Confucian-based familialism and corporate occupational welfare arrangements that serve as a functional equivalent to a large-scaled statist social policy. The case of Switzerland is less clear-cut, and the exclusion appears somewhat arbitrary. Although located in the heart of the continent, Switzerland's public policy profile deviates with respect to social and economic policy from the corresponding trajectory of the continental family of nations. There is much evidence to suggest that the Swiss outsider position is due to strong veto-points, such as federalism and direct democracy, and their associated braking effect on public policy.⁶

The following discussion is divided into four sections. The first briefly discusses the methodological foundations of Castles' book and describes the logic of cluster analysis. Next, the main results obtained by cluster analysis are outlined. The subsequent section focuses on the relationship between policy input and policy outcomes. The article concludes with a summary of its main findings.

THE METHOD OF CLUSTER ANALYSIS

Apart from a 'thick' description of post-war transformation of public policy, Castles' research relies on cross-sectional correlation and regression

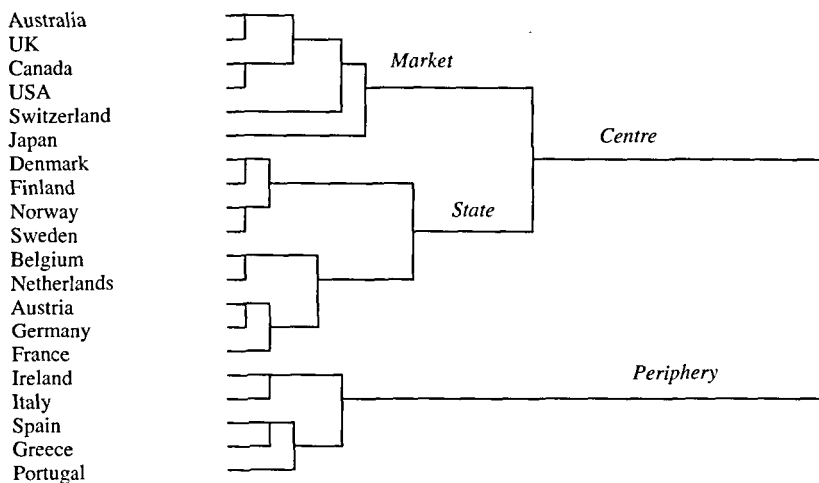
TABLE 1
VARIABLES SUBJECT TO CLUSTER ANALYSIS

(1) Socio-economic variables	(2) Political-institutional variables	(3) Outcome variables
GDP per capita 1960	Cabinet seats of leftist parties	Health expenditures as % of GDP
Employment in agriculture as % of civilian employment	Cabinet seats of liberal parties	Social security transfers as % of GDP
GDP per capita (period average) in Geary-Khamis \$	Cabinet seats of centrist parties	Total employment as % of population from 16 to 64 years
Openness of economy (imports+exports) as % of GDP	Cabinet seats of conservative parties	Female labour force as % of female population
	<i>Index of countermajoritarian barriers</i>	Total outlays of government as % of GDP
	<i>Share of Catholics</i>	Consumer price index
	Union density	Economic growth (real GDP per capita)
	<i>Age of democracy</i>	Unemployment as % of total labour force
	Corporatism	Total taxes as % of GDP
	<i>Type of democracy (majoritarian vs. consociational democracy)</i>	Deficit of general government as % of GDP
		Taxes on income and profits as % of GDP
		External balance of goods & services as % of GDP
		Gross national saving as % of GDP
		<i>Public education expenditure as % of GDP</i>
		Social security contributions as % of GDP

Note: For some countries (respectively variables) data are not available for the entire period. Extrapolations were made for missing values in the 1960s. See appendix for source of data.

analysis. The analysis primarily focuses on the time-span from 1960 to the early 1990s for which the OECD has provided comparable data sets.⁷ Specifically, Castles' analysis centres on the three time points of 1960, 1974 and the early 1990s, and on changes over the entire period. Hypotheses concerning the determinants of different public policies are tested by maximising correlation coefficients, R^2 , and by the use of t-statistics. This methodological decision is explained by serious doubts about the fragility of research methods employed in much of the public policy literature and especially by scepticism about the use of pooled time-series regression analysis.⁸ Whether or not this objection is justified, Castles reports a series of interesting results, which are thoroughly interpreted and put into the context of the state of the art of comparative public policy research.

FIGURE 1
CLUSTER ANALYSIS, 1960-95



Note: Dendrogram is based on Ward Method as amalgamation method; distance measure: squared Euclidean distance.

The present discussion does not examine the driving forces behind post-war public policy development. Rather, the article investigates the existence of four families of nations. Castles' argument in favour of four families of nations rests upon the interpretation of aggregate data, such as public expenditure for social security. However, his thesis is not systematically tested through appropriate and sophisticated methods. The method employed here is cluster analysis, which is specifically tailored to the identification of patterns within a given data set. We focus on two policy fields – social and economic policy. Located at the heart of ideological conflicts, these policies mark the reach of the state and the market within society, and are more or less subject to political governance and manipulation.

In general, cluster analysis seeks to discern homogenous groups within a given set of observations. Specifically, the objective of cluster analysis is to single out different clusters showing strong internal homogeneity, while the difference between each of the clusters should be as large as possible. Cluster analysis is, therefore, a powerful tool to detect patterns – or what in this context we call 'families of nations'.⁹ The overall analysis is based on 29 variables. We employ three classes of variables stemming from the major schools of thought of comparative public policy research. In particular, we distinguish between several political-institutional variables (including one cultural variable), and between socio-economic and outcome variables

related to the two policy fields under consideration. Each of these classes entails a list of variables, which are reported in Table 1. Following Castles, we use primarily OECD data and limit our analysis to the periods 1960–95 (the whole period), 1960–73 ('golden era period') and 1974–95 ('economic crisis period'). Owing to a lack of data for several core variables, New Zealand had to be excluded from our analysis. All variables have been z-transformed, since the data are not measured on a common scale, and they refer to averages over the three periods under investigation.¹⁰ No averages have been calculated for variables which are italicised in Table 1, either because of lacking variation over the entire period or because the data refer to a particular year. In such cases, we have used the constant for each country or the specific value for that year.

FOUR FAMILIES?

The results for the entire post-war period (1960–95) are summarised by the dendrogram (or cluster tree) shown in Figure 1. Looking at the dendrogram's joining history provides information about the similarities and dissimilarities between each of the countries. The earlier two countries merge, the greater the similarity between them.

The dendrogram reveals a Scandinavian, a Continental, an English-speaking and, finally, a southern European cluster. As expected, Sweden, Finland, Denmark and Norway form the Scandinavian cluster, whereas Austria, Germany, France, Belgium and the Netherlands make up the Continental cluster. Canada, the United Kingdom, Australia and the United States are located in a third group. Finally, there is a fourth cluster comprising the countries of southern Europe. The dendrogram is highly supportive of Castles' argument that neighbour countries or countries with strong cultural and historical affinities are very similar in their public policy profiles. One can easily observe the close relationship between the UK and Australia, Belgium and the Netherlands, Norway and Sweden, Germany and Austria, or between Canada and the United States. However, the striking result is that these cultural and historical affinities have not been operationalised by variables like language or proximity. Yet one has to be careful with this interpretation. Other variables may exist, such as trade and geopolitics, which might be responsible for the close relationship between several of the countries.

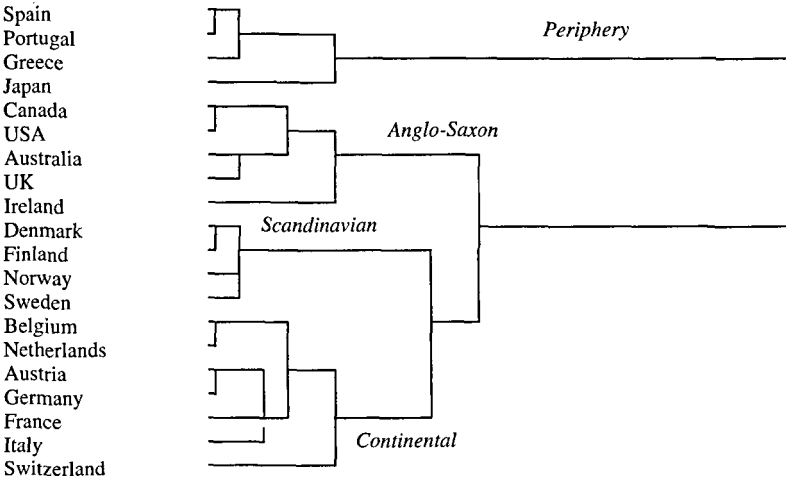
Two countries, Italy and Ireland, do not coincide with Castles' findings. These two countries rather join the 'Southern' family of nations. However, Italy can be interpreted as the most advanced member of this group. The common feature of this family is a strong Catholic cultural impact, relative economic backwardness and – although not reflected by the raw data – a peripheral geographical location. The question which emerges immediately

is whether these countries form a genuine family of nations characterised by specific policy features or whether they are currently at a stage of gradual economic transition, suggesting the possibility that they will join the Continental family of nations (or the English-speaking family of nations in the case of Ireland) in the near future. There are arguments for both points of view. With respect to social policy, it can be argued that there is a group of Latin rim countries that is characterised by its own special way of regulating social security.¹¹ Recently, Mel Cousins has explained the peculiarities of the Irish welfare state by a strong Catholic impact and Ireland's peripheral geographic location.¹² On the other hand, these countries also share many of the structural components of social policy ascribed to the Continental (for the Irish case: English-speaking) family of nations. Notwithstanding this issue, and for the sake of simplicity, this group of countries is labelled as a peripheral family of nations.

The two stepchildren, Japan and Switzerland, have been adopted by the English-speaking family of nations. Keeping in mind our focus on social and economic policy, this is in line with the findings of the majority of studies in the comparative public policy literature. However, a look at the cluster tree supports the view that these countries are, in fact, different. Japan and Switzerland merge relatively late with the English-speaking countries, a finding which supports the argument that there are, indeed, major country-specific peculiarities regarding public policy in both countries.

The dendrogram reveals another striking feature of the families of nations concept. As Castles noticed, there seems to be a close correspondence between the families of nations and Esping-Andersen's 'Three worlds of welfare capitalism'.¹³ Given that Esping-Andersen neglected the countries of Southern Europe, there is an almost perfect relationship between the families of nations and the liberal (Anglo-Saxon), conservative (Continental) and social-democratic (Scandinavian) worlds of welfare capitalism. In addition, these findings support the core thesis of the 'politics-do-matter-school', that is, different political-institutional arrangements produce different policy outcomes. The members of each of these three families share common political-institutional attributes. The Scandinavian countries share strong labour parties and a lack of both strong counter-majoritarian barriers and Catholic-cultural impact. The English-speaking world is characterised by strong secular conservative parties, strong counter-majoritarian barriers (for instance a federalist power-sharing) in Australia, the United States and Canada (with the exception of the United Kingdom and New Zealand), the absence of a Catholic-cultural impact and also by a lack of corporatist and consociational arrangements. The Continental countries have in common a strong but declining Catholic influence, which is – with exception of France –

FIGURE 2
CLUSTER ANALYSIS, 1960-73

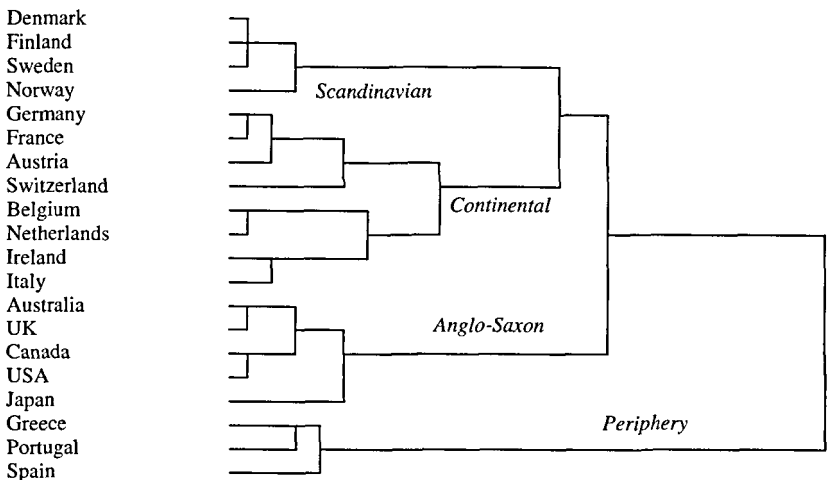


Note: Dendrogram is based on Ward Method as amalgamation method; distance measure: squared Euclidean distance.

mirrored by a strong position of Christian democratic parties conducive to a prominent role of the state at least in the field of social policy.¹⁴ Since the labour movement plays an important role in all of these countries, this group has embarked on a route of public policy located between the social-democratic and liberal paths of public policy. This ‘politics of the middle way’¹⁵ is a result of the partisan parallelogram of forces and country-specific institutional arrangements that enforce compromise-based policies. In Germany, the Bundesrat enables co-governing of the opposition, while in Austria corporatism favours compromises in social and economic policy between the two major party camps. Belgium and the Netherlands are, in turn, highly developed consociational democracies, which are oriented towards bargaining and compromise-based policies. The exception is, once again, Switzerland, the most prominent example of consociationalism, which should – from a historical point of view – be located in this cluster.¹⁶ By increasing the aggregation level of analysis, one can observe two major trajectories towards modernity. The Scandinavian countries and the Continental countries merge to a common cluster pointing to a public policy path that reflects an important role of state intervention. This path towards modernity might be named as the ‘European’ model of political economy. In contrast, the liberal English-speaking countries (plus Switzerland and Japan) stay isolated. This cluster mirrors a primarily market-oriented trajectory of public policy with limited state intervention in social and

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FIGURE 3
CLUSTER ANALYSIS 1974-95



Note: Dendrogram is based on Ward Method as amalgamation method; distance measure: squared Euclidean distance.

economic affairs. Thus, cluster analysis locates different weights of the state and the market within the Western world. Both paths to modernity have equally resulted in unprecedented wealth. In contrast to this club of rich countries at the centre, the countries located at the European periphery remain grouped in a separate cluster.

Yet using long-term averages is problematic, since variations over time are averaged out. Thus, the present analysis splits the period of investigation into two sub-periods. Following Castles, the watershed of 1974, which marks the end of the Golden Age of welfare capitalism, has been chosen as an appropriate cut-off point. Figures 2 and 3 show the cluster trees for the two sub-periods 1960-73 and 1974-95, respectively.

Both figures show that the affiliation of each of the countries to one of the families of nations remains quite stable over time (see also Table 2). There are only two sets of exceptions. On the one hand, Switzerland and Japan change the cluster. Japan starts out in the cluster of the economic laggards (peripheral cluster), but later joins the Anglo-Saxon family. Switzerland is to be found in the Continental cluster in each of the two sub-periods, in contrast to its position in the Anglo-Saxon cluster over the entire period. However, the fact that Switzerland and Japan are standing alone within their clusters provides evidence for a peculiar public policy profile. On the other hand, Ireland and Italy shift between different clusters. During both sub-periods (1960-73 and 1974-95), Italy belongs to the Continental

TABLE 2
FAMILIES OF NATIONS ACCORDING TO VARIOUS TIME PERIODS

FAMILY OF NATIONS	PERIOD		
	1960-73	1974-95	1960-95
<i>English-speaking family (Anglo-Saxon)</i>	Canada United Kingdom USA Australia Ireland	Canada United Kingdom USA Australia Japan	Canada United Kingdom USA Australia Japan Switzerland
<i>Continental family</i>	Austria Germany France Belgium Netherlands Switzerland Italy	Austria Germany France Belgium Netherlands Switzerland Italy Ireland	Austria Germany France Belgium Netherlands
<i>Scandinavian family</i>	Denmark Sweden Norway Finland	Denmark Sweden Norway Finland	Denmark Sweden Norway Finland
<i>Peripheral family</i>	Spain Portugal Greece Japan	Spain Portugal Greece	Spain Portugal Greece Italy Ireland

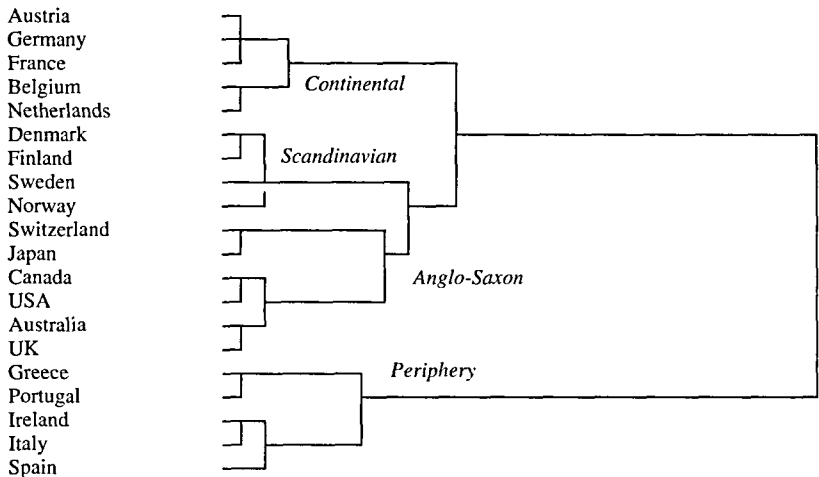
Note: Countries that change the cluster are highlighted in bold print. New Zealand was excluded from the analysis due to insufficient data.

family, while for the overall period it is located in the peripheral family. Ireland is the most heterogeneous case, since the country appears in three different families of nations, depending on the period of analysis. This shift might be due to a strong economic catch-up.

The heterogeneity within the Continental cluster in the period 1974-95 is the most obvious difference compared to the results derived for the entire period. Specifically, this cluster now falls into three sub-groups, comprising Italy and Ireland; Belgium and the Netherlands; and Austria, Germany and France. Switzerland is located between these groups, thereby demonstrating affinities to its neighbour countries France, Austria and Germany. This grouping of countries clearly reflects the heterogeneity of public policy-making within the Continental family of nations. Indeed, one lesson of Esping-Andersen's pioneering work is that the 'conservative' world of welfare capitalism is characterised by considerable variation and pluralism in public policy-making.¹⁷

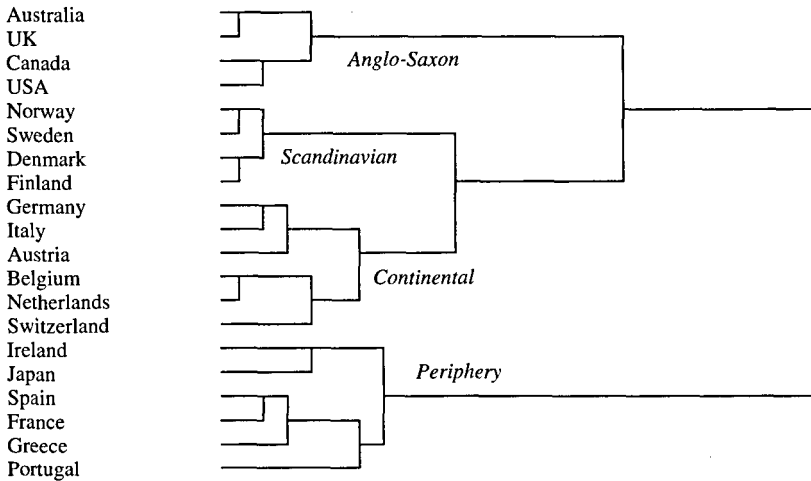
How reliable are the reported findings and what is the optimal number of clusters? The inverse Scree-test is a heuristic analytical tool to discern the optimal number of clusters. Scree tests for all periods reveal that the optimum number of clusters varies between three and five, thus providing empirical evidence that the hypothesised families of nations fit the data patterns quite well. Moreover, we have tested the robustness of our results. Employing different amalgamation methods (complete linkage, centroid and median) for the entire period of 1960–95 does not substantially alter the results. All of these linkage methods produce a four cluster solution and detect Switzerland and Japan as outliers. The only deviation compared to the Ward method concerns Italy, which is now located in the Continental cluster. Note that Italy has already changed the cluster after dividing the period of investigation into two sub-periods. This provides some evidence that Italy is a hybrid case showing affinities with two different families of nations. Equally, this result highlights the limits of cluster analysis, since this method aims at pressing countries into mutually exclusive subgroups. There is a further problem attached to methods like cluster analysis. To some extent there is a danger that you get out what you have put in. We have, therefore, tested the sensitivity of the results with respect to alterations of the variables subject to cluster analysis. Clustering the context variables with social policy indicators and economic policy indicators separately ends

FIGURE 4
CLUSTER ANALYSIS OF OUTPUT-VARIABLES, 1960–95



Note: Dendrogram is based on Ward Method as amalgamation method; distance measure: squared Euclidean distance.

FIGURE 5
CLUSTER ANALYSIS OF INPUT-VARIABLES 1960-95



Note: Dendrogram is based on Ward Method as amalgamation method; distance measure: squared Euclidean distance.

up in a four-cluster solution, which in both cases consists of the correct countries.¹⁸ Moreover, a cluster analysis comprising only eight variables (a combination of social policy, labour market, and tax policy indicators) yields the same result. These findings suggest that the results presented here are robust.

LINKING INPUT AND OUTPUTS

The analysis so far has linked public policy outcomes with the underlying socio-economic and political variables (that is, configuration or context variables). However, one might also argue that the family of nations concept is merely output-oriented in the sense that we can distinguish four clusters of public policy outcomes. To test this objection, we have clustered the outcome variables (variables of column 3 of Table 1) separately. The corresponding dendrogram is reported in Figure 4. The results of Figure 4 are strongly supportive of the findings of the broader analysis summarised in Figure 1. By itself, Figure 4 suggests that the grouping of nations into broader families of nations derived so far is merely driven by policy-output.

However, a cluster analysis that is based solely upon configuration (input) variables (that is, variables from column (1) and (2) of Table 1) leads to a grouping of nations that closely resembles the results obtained by clustering output-variables only (see Figure 5).

There are, however, four deviant cases from the initial result for the entire period (1960–95). Japan leaves the English-speaking family, France breaks away from the Continental cluster, and both join the peripheral cluster. Switzerland and Italy are located in the Continental family, in line with the cluster results reported for the sub-periods 1960–73 and 1974–95. Moreover, there is much more heterogeneity within most of the clusters except for the Scandinavian one. Notwithstanding these deviations, the splitting of the nations into four major groups still holds true. Together with the considerable congruence between the output-oriented analysis and the broader analysis, this provides evidence of a causal link between institutions, ideologies, socio-economic conditions and public policies. This link between specific ideologies operating within a given socio-economic and institutional context – by which in turn power resources of decision-makers are influenced and weighted – and different policy outcomes or policy regimes is the basic story of Esping-Andersen's regime approach. Further evidence supporting this view stems from a more detailed cluster analysis of taxation policy in 21 countries (1965–96). At the same time, this analysis serves as an additional test for the robustness of our findings. The corresponding cluster analysis is based on 144 tax indicators measuring the tax structure, tax burden and peculiar tax system properties. It, too, reveals four families of taxation:¹⁹

1. An Anglo-Saxon family consisting of the USA, UK, Australia, New Zealand, Canada, Japan and Switzerland.
2. Sweden, Finland and Denmark which form the social-democratic or Scandinavian family.
3. A Continental family comprising Germany, Austria, Belgium, the Netherlands and France.
4. A peripheral family formed by Italy, Spain, Portugal, Greece, Norway and Ireland.

The striking parallels are obvious, since we can observe only one deviant case (Norway) compared to our initial clustering in Figure 1. However, this case shows strong similarities to the Scandinavian cluster and has to be clustered for several reasons within this family.²⁰ These findings are also similar to the cluster analysis undertaken by Guy Peters,²¹ who has identified four families of taxation by using 11 tax indicators for the 1960s. These four families of taxation, which almost perfectly match the families of nations singled out by Castles, can be distinguished by two key variables: partisan complexion of government and religion (see Table 3). Two families are predominantly Protestant (the Social Democratic Scandinavian and the Anglo-Saxon cluster), and two are Catholic (the Christian Democratic and

the peripheral cluster). Apart from the peripheral family of taxation (and nations), all clusters have a dominant partisan tendency in office (highlighted in bold in Table 3), which is mirrored by a specific system of taxation.²² The Anglo-Saxon world displays a strong incumbency of conservative parties and a relatively strong impact of liberal parties. Christian Democratic parties dominate the Continental cluster, though there are also strong left-wing parties. In contrast, in Scandinavia social-democratic rule is hegemonic.

CONCLUSION

The objective of this article was to re-analyse Francis G. Castles' families of nations concept by employing cluster analysis. The results provide ample support for Castles' findings concerning both social and economic policy and would appear to be reliable for other public policies, too. Three main findings stand out. First, families of nations are real and are stable over time. From an historical point of view, this means that public policy-making demonstrates considerable path-dependency. Second, there is a close relationship between these families of nations and the worlds of welfare capitalism identified by Esping-Andersen. The families of nations mark different roads towards modernity. Thus, increasing the aggregation level of analysis helps to discern state and market-oriented paths towards modernity, and reveals a cleavage between 'poor peripheral' and 'rich centrist' countries. Third, Switzerland

TABLE 3
POLITICAL AND DENOMINATIONAL STRUCTURE OF THE
FAMILIES OF TAXATION

	Families of Taxation			
	Anglo-Saxon	Continental	Scandinavian	Periphery
Cabinet share of Conservative parties	54.9	5.5	9.5	30.8
Cabinet share of Liberal parties	21.6	14.6	12.1	11.6
Cabinet share of Christian Democrats	4.3	41.3	1.6	23.0
Cabinet share of Social Democrats	18.9	28.9	59.2	23.1
Share of Protestants	55.9 ^a	15.7	77.8	1.0
Share of Catholics	21.4 ^a	65.7	12.3	96.3

Note: Classification of families of taxation see text. Norway is classified as social democratic (see text). The Democrats in the USA are classified as a liberal party. Cabinet share are averages (Ø 1945–97). The denominational data refers to the 1990s. a = Japan excluded.

and Japan fall outside of the four families, although Switzerland has a strong affinity to the Continental family of nations.

APPENDIX
VARIABLES AND SOURCE OF DATA

- GDP per capita 1960.** Source: A. Maddison, *Monitoring the World Economy 1820–1992* (Paris: OECD 1995).
- Employment in agriculture as % of civilian employment (1960–95/1960–73/1974–95).** Source: OECD, *Historical Statistics 1960–1995* (Paris 1996).
- GDP per capita** (in Geary-Khamis Dollars [1960–94/1960–73/1974–94]). Source: A. Maddison, *Monitoring the World Economy 1820–1992*.
- Openness of economy** (imports+exports as % of GDP [1960–95/1960–73/1974–95]). Source: OECD, *Historical Statistics 1960–1995* (Paris 1996).
- Gross saving as % of GDP** (1960–95/1960–73/1974–95). Source: OECD, *Historical Statistics 1960–1995* (Paris 1996).
- Cabinet seats of leftist parties** (1960–94/1960–73 [without Spain, Greece, Portugal]/1974–95). Source: M.G. Schmidt, *Die parteipolitische Zusammensetzung von Regierungen* (University of Bremen, unpublished manuscript).
- Cabinet seats of liberal parties** (1960–94/1960–73 [without Spain, Greece, Portugal]/1974–95). Source: Schmidt, *Die parteipolitische Zusammensetzung von Regierungen*.
- Cabinet seats of centrist parties** (1960–94/1960–73 [without Spain, Greece, Portugal]/1974–95). Source: Schmidt, *Die parteipolitische Zusammensetzung von Regierungen*.
- Cabinet seats of conservative parties** (1960–94/1960–73 [without Spain, Greece, Portugal]/1974–95). Source: Schmidt, *Die parteipolitische Zusammensetzung von Regierungen*.
- Index of countermajoritarian barriers.** Source: E. Huber, C. Ragin and J.D. Stephens, 'Social Democracy, Christian Democracy, Constitutional Structure, and the Welfare State', *American Journal of Sociology* 99 (1993) p.728.
- Share of Catholics:** Percentage of population baptised into a non-Protestant Christian faith. Source: Castles, *Comparative Public Policy*, p.56.
- Union density** (averages 1960/90; 1960/74; 1974/90). Source: Castles, *Comparative Public Policy*, p.68.
- Age of democracy.** Source: M.G. Schmidt, *Demokratietheorien* (Opladen: Leske+Budrich 1995), p.269.
- Corporatism.** Source: Castles, *Comparative Public Policy*, p.79.
- Type of democracy** (majoritarian vs. consociational democracy); 3-point-scale. Source: M.G. Schmidt, *Demokratietheorien* (Opladen: Leske+Budrich 1995), p.233.
- Health expenditures as % of GDP** (1960–95/1960–73/1974–95). Source: OECD, *Health Expenditures* (CD-ROM, Paris 1997).
- Social security transfers as % of GDP** (1960–94/1960–973/1974–94). Source: OECD, *Historical Statistics 1960–95* (Paris 1996).
- Total employment as % of population from 16 to 64 years** (1960–95/1960–73/1974–95). Source: OECD, *Historical Statistics 1960–1995*.
- Female labour force as % of female population** (1960–95/1960–73/1974–95). Source: OECD, *Historical Statistics 1960–1995*.
- Total outlays of government as % of GDP** (1960–95/1960–73/1974–95). Source: OECD, *Historical Statistics 1960–1995*.
- Consumer price index** (1960–95/1960–73/1974–95). Source: OECD, *Historical Statistics 1960–1995*.
- Economic growth** (growth of real GDP per capita [1960–95/1960–73/1974–95]). Source: OECD, *Historical Statistics 1960–1995*.
- Unemployment as % of total labour force** (1960–95/1960–73/1974–95). Source: OECD, *Historical Statistics 1960–1995*.
- Total taxes as % of GDP** (1965–95/1965–73/1974–95). Source: OECD, *Revenue Statistics* (Paris, various years).

- Deficit of general government as % of GDP** (1960–92/1960–73/1973–92). Source: OECD, *Economic Outlook* (Paris, various years). Switzerland = deficit of central government.
- Social security contributions as % of GDP** (1960–95/1960–73/1974–95). Source: OECD, *Revenue Statistics*.
- Public education expenditure as % of GDP** (averages 1960/93; 1960/74; 1974/93): Source: Castles, *Comparative Public Policy*, p.177.
- Taxes on income and profits as % of GDP** (1965–95/1965–73/1974–95). Source: OECD, *Revenue Statistics*.
- External balance of goods and services as % of GDP** (1960–95/1960–73/1974–95). Source: OECD, *Historical Statistics 1960–1995*.

NOTES

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1. F.G. Castles, *Comparative Public Policy. Patterns of Post-war Transformation* (Cheltenham: Edward Elgar 1999), p.8.
2. *Ibid.*, p.5.
3. *Ibid.*, p.27.
4. *Ibid.*, pp.8–9.
5. G. Esping-Andersen, 'Hybrid or Unique?: The Japanese Welfare State Between Europe and America', *Journal of European Social Policy* 7 (1997), pp.179–89.
6. See U. Wagschal, 'Direct Democracy and Public Policymaking', *Journal of Public Policy* 17 (1997), pp.223–45; H. Obinger, *Politische Institutionen und Sozialpolitik in der Schweiz* (Frankfurt: Lang 1998); H. Obinger, 'Federalism, Direct Democracy, and Welfare State Development in Switzerland', *Journal of Public Policy* 18 (1998), pp.241–63.
7. The selection of years can be criticised, since it is dependent on data availability and only partly on theoretical considerations. Outliers and specific idiosyncrasies (e.g. German unification) might influence the outcome.
8. Castles, *Comparative Public Policy*, p.19.
9. U. Wagschal, *Statistik für Politikwissenschaftler* (Munich/Vienna: Oldenbourg 1999). Cluster analysis proceeds in two stages. First, one has to choose a distance measure for computing distances between each of the cases (countries). For this purpose, the squared Euclidean distance was used, though other distance metrics could also have been employed. The second step is to select a linkage or amalgamation method that merges the different cases (countries) into clusters showing strong internal homogeneity. From several possible linkage methods, we have chosen the Ward-method (which requires the squared Euclidean distance), since this method avoids the tendency for chain formation and tends to produce clusters of equal size. Cluster analysis then simultaneously analyses all variables in order to discern different groupings within the data set under consideration.
10. We are fully aware that z-transformation for some variables is problematical since some of our variables are measured on ordinal scale. Therefore we have limited ordinal scaled variables to an absolute minimum (= two variables).
11. For example, M. Ferrera, 'The "Southern Model" of Welfare in Social Europe', *Journal of European Social Policy* 6 (1996), pp.17–37; G.S. Katrougalos, 'The South European Welfare Model: The Greek Welfare State in Search of an Identity', *Journal of European Social Policy* 6 (1996), pp.39–60; S. Lessenich, *Wohlfahrtsstaat, Arbeitsmarkt und Sozialpolitik in Spanien* (Opladen: Leske+Budrich 1995).
12. M. Cousins, 'Ireland's Place in the Worlds of Welfare Capitalism', *Journal of European Social Policy* 7 (1997), pp.223–35.
13. G. Esping-Andersen, *The Three Worlds of Welfare Capitalism* (Cambridge: Polity Press 1990); see also S. Lessenich and I. Ostner (eds.), *Welten des Wohlfahrtskapitalismus. Der Sozialstaat in vergleichender Perspektive* (Frankfurt/Main: Campus 1998).
14. K. van Kersbergen, *Social Capitalism. A Study of Christian Democracy and the Welfare State* (London: Routledge 1995).
15. See M.G. Schmidt, 'Die Politik des mittleren Weges. Besonderheiten der Staatstätigkeit in der Bundesrepublik Deutschland', *Aus Politik und Zeitgeschichte* (1990), B 9–10, pp.23–31;

- M.G. Schmidt, 'Germany. The Grand Coalition State', in J.M. Colomer (ed.), *Political Institutions in Western Europe* (London: Routledge 1996), pp.62-98.
16. See G. Lehmbruch, 'Die korporative Verhandlungsdemokratie in Westmitteleuropa', *Schweizerische Zeitschrift für Politische Wissenschaft* 2 (1996), pp.19-44.
 17. See Lessenich and Ostner, *Welten des Wohlfahrtskapitalismus*; J. Kohl, 'Der Wohlfahrtsstaat in vergleichender Perspektive', *Zeitschrift für Sozialreform* 39 (1993), pp.67-82; C. Offe, 'Zur Typologie von sozialpolitischen "Regimes"', *Zeitschrift für Sozialreform* 39 (1993), pp.83-6 and M.G. Schmidt, *Sozialpolitik in Deutschland. Historische Entwicklung und internationaler Vergleich* (Opladen: Leske+Budrich 1998).
 18. Yet there is a considerable heterogeneity within the Continental cluster.
 19. U. Wagschal, 'Deutschlands Steuerstaat und die vier Welten der Besteuerung', in M.G. Schmidt (ed.), *Wohlfahrtsstaatliche Politik: Institutionen - Prozesse - Leistungsprofil* (Opladen: Leske+Budrich 2001), pp.126-62.
 20. Four reasons justify the classification of Norway as a member of the social-democratic/Scandinavian family of taxation: (1) The tax systems are very similar. (2) The values of the distance matrix are close. The original classification in the peripheral cluster was driven by a low distance between Ireland and Norway. (3) Results of other cluster analysis, mainly for sub-periods and other configurations, usually classify Norway within this family of taxation. (4) Political and institutional features as well as the common history and geographical nearness justify this reordering.
 21. B.G. Peters, *The Politics of Taxation. A Comparative Perspective* (Cambridge, MA and Oxford: Blackwell 1991), p.60.
 22. Wagschal, 'Deutschlands Steuerstaat und die vier Welten der Besteuerung'.