

Themed Section

Welfare-state decommodification in 18 OECD countries: a replication and revision

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Summary We present and discuss a replication and reassessment of the welfare-state decommodification index, and introduce a new, publicly available data set of key welfare-state programme characteristics. Using the same programme features used to create the 'decommodification index' in *The Three Worlds of Welfare Capitalism*, one of the most widely cited sources in the field, we are able to replicate the results quite closely. However, our investigation suggests a number of likely errors in the original formulation. Once these are accounted for, we find very limited empirical support for the 'three worlds' typology in the decommodification data. Though some clear differences remain, there is also much less overall variation among countries. Furthermore, there is little evidence of 'clustering' among programme scores, a finding which is at odds with the idea of distinctive national regimes. Our results point to the need for a detailed re-investigation of welfare-state benefits in advanced industrial democracies. Our data set helps to provide a basis for such an assessment.

Key words comparative political economy, social policy, welfare state

Introduction¹

In the last two decades the literature on comparative social policy has been dominated by the three-fold typology of welfare-state regimes suggested by Gøsta Esping-Andersen (hereafter EA) in *The Three Worlds of Welfare Capitalism*. It is difficult to find an article comparing welfare states in advanced democratic countries (or a syllabus on social policy) that does not refer to this seminal work (Arts and Gelissen, 2002). Perhaps the chief virtue of the typology is that it provides systematic empirical validation, utilizing programmatic features of the welfare state, for a set of ideal types (Castles, 2001). Most other works before (and since) tend to rely either on: (a) programme characteristics which are not directly supported by systematic empirical data;

or (b) spending data which eschew institutional classification. In this article, we present and discuss a reassessment of EA's decommodification index using the same underlying methodology. In so doing, we also introduce a data set containing detailed information on the comparative generosity of welfare-state programme entitlements for the years 1971–2002.²

Our results are potentially significant in two respects. First, our findings raise questions about the correct classification of certain countries in terms of decommodification. In so doing, our more accurate reclassification of comparative welfare-state generosity may fundamentally change the results of numerous empirical studies which have used the decommodification index. Second, insofar as the programme characteristics which comprise

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EA's decommodification index are one of two defining dimensions of 'the principal analytical axis that underpinned the "three worlds" typology' (Esping-Andersen, 1999: 74; also see 1990: 51, 77), our findings may have implications for the three-regime schema more broadly, since the other key empirical dimension of the scheme – the extent of welfare-state 'stratification' – has not, to our knowledge, been replicated.³

Most social policy scholars agree that there are conceptual and empirical drawbacks to using spending as the primary (let alone exclusive) empirical basis for evaluating welfare states (e.g. Esping-Andersen, 1990; Allan and Scruggs, 2004; Castles, 2004a). Conceptually, spending does not provide a sufficient indication of the welfare state's effects on individual life chances. Perhaps the most famous example, cited by EA himself, is unemployment insurance in the United Kingdom during the 1980s. The Thatcher government made a number of major programme cuts, including phasing out earnings-related unemployment and sickness benefits. During this same period, however, spending on unemployment benefits rose, as the number of people depending on benefits grew faster than programmatic entitlements were cut. Looking only at the spending side would lead one to the erroneous conclusion that the Thatcher Government expanded welfare-state benefits.

While the 'three worlds' typology has been criticized on different fronts, it remains enormously influential (Castles and Mitchell, 1993; Orloff, 1993; Ferrera, 1987; Room, 2000; Hicks and Kenworthy, 2003; Gal, 2004). Numerous studies use the regime classifications, which are in most respects grounded on two key welfare characteristics: the degree of programme decommodification and social stratification. An often overlooked fact about EA's results is that the data underlying the indices are not publicly available. As a consequence, the most frequently used empirical indicators of differences in welfare-state characteristics have never been subjected to the normal procedures for scientific validation, critique and replication.⁴

The book's data are, in fact, based on a single year, circa 1980. EA himself notes that welfare-state differences are temporally contingent:

In reality however, there are no pure cases . . . Even Australia is approaching the principal of a

people's pension. In the continental European nations . . . a host of alternatives [to the social-insurance tradition] has emerged over the years . . . and almost all [social democratic] countries have developed earnings and work related schemes to complement the modest benefits awarded by flat rate universal plans. In short, every country today presents a system mix.

Despite the complexity this involves, it is possible to empirically distinguish welfare states' variable capacity to decommodify. (1990: 49)

Nevertheless, the social policy discipline (and related fields like sociology and political science) have tended to treat this snapshot as a more or less permanent characterization of welfare-state variation, with numerous articles using the index in analyses of everything from determinants of social spending to crime rates (Huber et al., 1993; Pampel and Gartner, 1995; Mitchell, 1996; Western, 1996; Messner and Rosenfeld, 1997; Crepaz, 1998; Iversen, 1998; Hicks, 1999; Kenworthy, 1999; Pampel and Williamson, 2001; Radcliff, 2001; Huber and Stephens, 2002; Swank, 2002). Thus, welfare-state research has neither replicated the original data nor directly grappled with whether (or to what degree) welfare-state 'decommodification potential' changed over time. Many have suggested that an 'entitlements time series' is necessary to properly evaluate the extent of change in advanced welfare states (e.g. Castles, 1998; 2004a; Hicks, 1999; Kitschelt, 2001; Green-Pedersen and Haverland, 2002). By making available annual data on the programme characteristics for the decommodification index, we hope to provide one basis for conducting quantitative analyses more directly focused on 'the theoretical substance of welfare states' (Esping-Andersen, 1990: 19).

In the rest of this article, we provide data and analysis recreating the empirical features of comparative welfare-state regimes. While our publicly available data cover the major programme features of the decommodification index for 1971–2002, we focus here on the same key features underlying EA's decommodification index. We first briefly describe the key variables and aggregation procedures underlying the index. Next, in order to demonstrate that we are 'in the ballpark' with our estimates, we provide a replication which comes as close as possible to EA's results as we can feasibly justify. Finally,

we discuss what appear to be a number of problems with the original empirical efforts and present what we think is a more accurate picture of actual decommodification scores (which we will refer to as 'benefit generosity' indices). We conclude by discussing how our findings relate the three worlds typology. In brief, we find that a significant number of countries have decommodification scores placing them 'in the wrong regime' and that national scores for the key programmes are not, in fact, strongly intercorrelated.

At the outset, we should emphasize that the practice of summarizing features of complex and dynamic social programmes does involve judgement and interpretation. This is an inherent problem of data collection in the social sciences. It is fair to say that no two programmes are truly as 'comparable' as they might appear to be when represented by summary statistics in a table. This fact should be kept in mind in evaluating our own analysis as well as any other analysis of these programme characteristics. That said, we have tried to remain as much within the basic spirit of EA's original analysis as possible, while providing an independent assessment from the ground up. The difficulties and complications of replicating social data do not diminish the value and importance of replication in social science. There is no reason to suspect that social scientists (or humanists) are less subject to unconscious bias or error than natural scientists are.

Unpacking the decommodification index

The decommodification index relies on several key characteristics of three major social-insurance programmes: pensions, unemployment and sick pay. Much of the programme data used to create the decommodification index in *The Three Worlds* comes from the larger Social Citizenship Project, undertaken by researchers at the Swedish Centre for Social Research (SOFI) in Stockholm (e.g. Palme, 1990; Kangas, 1991; Carroll, 1999; Korpi and Palme, 2003). This project, started in the 1980s, has collected data at five-year increments (back to the 1930s) for the same major social-insurance programmes that comprise the decommodification index. The data reported in our project cover very similar programme details, but do so on an annual basis from 1971–2002. More importantly for other

welfare researchers, while the SOFI data remain out of the public domain, our data are available from the authors, including calculation details for replacement and coverage rates.⁵ While it is not likely that open access will resolve all disputes concerning institutional details of welfare-state programmes, we do believe it provides a valuable resource for research in comparative social policy.

Replacement rates

For the three programmes included in the decommodification index, a critical feature is the net income replacement rate: the ratio of the after-tax benefit payable to a typical (single) worker – someone earning the average production worker's (APW) wage – to their after-tax income. Determining the net replacement rate requires detailed information about the benefit structure, the wage of the APW and the income and social-security tax structure in each country-year.⁶

Following EA's approach, the replacement rate we provide is for the first six months of unemployment or sickness-insurance benefit. For the pension programme, the original decommodification index used two types of pension replacement rate: the 'minimum' pension, payable regardless of work history; and the 'standard' pension, payable to someone earning the APW wage in each year of their working life. As we have reason to believe this is the case with EA's calculations, we include only 'public' pensions, and exclude private, mandated saving plans and occupational plans (1990: 26, 81).

There is some ambiguity in the text of *The Three Worlds* as to precisely what is meant by replacement rates for minimum and standard pensions. EA's explanation (p. 54) defines the *minimum pension* as the 'minimum pension benefit for the standard production worker earning average wages' while the *standard pension* is 'the standard pension benefits for a normal worker, calculated as above'. It is not clear what the difference is between a 'standard production worker earning average wages' and a 'normal worker'. Workers generally accrue rights to a specified amount on the basis of their wage *history*. So the pension that a worker earning 'standard' wages receives is *an* amount; it is not something with a range (e.g. a 'minimum' or a 'maximum').

We interpret the *minimum* pension to be the pension – usually means-tested in part or whole – that is payable to someone above the standard retirement age. Examples of minimum pensions would be non-contributory pensions in Ireland, Supplement Security Income for the aged in the United States, the social pension in Italy, and the universal pension *with* full income-tested supplement in the Nordic countries. Our interpretation is consistent with the fact that in EA's pension decommodification index the Nordic countries – whose *non-means-tested* universal pensions are actually very modest – score much higher than all other countries. It is also consistent with the only available information on 'minimum' and 'standard' replacement rates published in Joakim Palme's (1990) dissertation on public pensions, which is, like EA's original data, based on information from the Social Citizenship Indicator Project.⁷

We interpret the *standard pension* to be the accrued public pension due to a worker who: (a) is fully insured (or as fully insured as they can be in 1980 given the terms and age of the programme); and (b) earned APW wages in each year of their working life. This definition also appears to be consistent with the usage in Palme (1990), and EA's results, including his estimates of pension benefit equality used in his stratification index.

Qualifying conditions

In addition to replacement rates, EA's decommodification index includes data relating to the generosity of other conditions of insurance circa 1980 (pp. 47–50). For unemployment and sick pay, this includes the number of *waiting days* before one can receive the benefit; the *benefit duration*: the number of weeks for which the benefit can be received; and the *qualifying condition*: the number of weeks of work or insurance necessary to receive a benefit of the length specified in benefit duration.⁸ Shorter qualifying periods, shorter waiting periods, or longer duration of benefit all imply greater generosity. For public pension programmes, qualifying conditions encompass: (a) the number of years of insurance required to receive the amount of the standard pension (in the year in question); and (b) the ratio of employee to total payroll contributions paid for the pension for the year in question.

Coverage rates

A final critical element used in the index is the coverage or take-up rate. Coverage rates generate much of the variation between countries in the decommodification index, especially the unemployment and sickness programmes. For sick pay and unemployment programmes, we use estimates of the proportion of the total labour force that is insured.⁹ For pensions, we use the proportion of people over 65 (or the official retirement age) who are in receipt of a public pension.

In all, there are five characteristics for each of the three programmes. The country scores for each characteristic in 1980 are provided in Table 1. As far as we are aware, this is the first time that data on the underlying components of the decommodification index have been replicated in detail. Without the precise data EA used, it is impossible to be certain where our results diverge from his. However, our aggregate scores are similar to those reported in *The Three Worlds*. Subsequently, we discuss substantive objections to EA's scoring decisions, but here, to demonstrate the initial credibility of our findings, we interpret the data in a way that most closely conforms to his reported results.

Replication results

Using these measures of welfare-programme attributes, we have computed decommodification scores in the exact manner laid out in *The Three Worlds* (p. 54). First, we took the average and standard deviation of the country scores for each programme characteristic in 1980 (except coverage/take-up rate, see below). Following the author's explanation of how to treat extreme values, we eliminated them from the averaging process.

Next, for each characteristic, we assign a score of 2 to any value within one standard deviation of that characteristic's mean. Values greater than one standard deviation above the mean are scored 3, and those greater than one standard deviation below the mean are scored 1. Thus, each characteristic's initial value reported in Table 1 except coverage/take-up (so, 12 in all) is scored 1, 2, or 3.¹⁰

The scoring metric selected by EA is less than ideal. Among other things, it creates unjustified discontinuities in scoring. Initial values which are very

Table 1 Replication data used for computation of decommodification index

Country	Unemployment								Sickness					Pensions													
	Replacement rate ^a	Duration limit (weeks)	Qualifying period (weeks) ^c	Waiting (days) ^c	Coverage	Replacement rate	Duration (weeks)	Qualifying period (weeks) ^c	Waiting (days) ^c	Coverage	Minimum pension replacement	Standard pension replacement	Qualifying period (years) ^c	Employee funding % ^c	Take-up												
Australia	26.0	1	<i>none</i>	3	0	3	7	2	0.50	28.0	1	<i>none</i>	3	0	3	7	2	0.50	28.0	2	28.0	1	0	3	0	3	0.50
Austria	58.0	2	30	2	156	1	0	3	0.69	74.7	2	26	2	0	3	3	2	0.88	42.2	2	80.3	3	45	1	0.47	2	0.86
Belgium	65.9	2	<i>none</i>	3	75	2	0	3	0.85	87.8	2	52	2	26	1	1	2	0.85	27.5	2	82.2	3	39	2	0.42	2	0.95
Canada	59.8	2	40	2	52	2	14	1	0.80	59.8	2	15	1	20	2	14	1	0.80	30.0	2	36.3	2	14	2	0.50	2	0.95
Denmark	81.8	3	<i>442</i> ^b	3	26	2	0	3	0.61	81.9	2	<i>none</i>	3	0	3	0	3	0.97	41.9	2	41.9	2	0	3	0.10	3	0.98
Finland	34.4	1	40	2	26	2	5	2	0.62	40.8	2	50	2	13	2	7	2	1.00	42.5	2	42.5	2	0	3	0.10	3	1.00
France	67.7	2	<i>52</i>	2	13	2	0	3	0.57	59.0	2	156	3	52	1	3	2	0.95	35.4	2	59.1	2	37.5	2	0.37	2	1.00
Germany	68.0	2	52	2	104	1	0	3	0.75	100.0	3	78	2	0	3	0	3	0.90	17.5	1	75.5	3	45	1	0.50	2	0.79
Ireland	60.0	2	65	3	48	2	14	1	0.83	60.0	2	<i>none</i>	3	<i>156</i>	1	14	1	0.83	31.1	2	36.3	2	25	2	0.28	2	0.67
Italy	71.0	2	26	1	13	2	0	3	0.46	68.5	2	26	2	0	3	3	2	0.66	18.8	1	69.5	2	40	2	0.30	2	1.00
Japan	68.8	2	30	2	26	2	7	2	0.45	51.6	2	26	2	0	3	3	2	0.56	17.2	1	50.7	2	25	2	0.50	2	0.94
Netherlands	86.2	3	26	1	26	2	0	3	0.88	86.2	2	52	2	0	3	2	2	0.88	53.2	3	53.2	2	0	3	0.62	1	0.82
New Zealand	33.1	1	<i>none</i>	3	0	3	7	2	0.50	35.7	1	<i>none</i>	3	0	3	7	2	0.50	40.1	2	40.1	2	0	3	0	3	0.95
Norway	70.2	2	40	2	4	3	3	2	0.85	100.0	3	52	2	2	2	0	3	1.00	42.5	2	42.5	2	0	3	0	3	0.99
Sweden	82.0	3	60	3	52	2	5	2	0.72	96.7	3	<i>none</i>	3	0	3	1	2	1.00	43.2	3	73.0	3	20	2	0	3	1.00
Switzerland	68.5	2	30	2	26	2	1	2	0.92	83.2	2	120	3	13	2	3	2	1.00	24.7	2	42.9	2	32	2	0.50	2	1.00
UK	45.0	2	26	1	50	2	12	1	0.90	45.0	2	26	2	26	1	12	1	0.90	31.2	2	33.6	1	45	1	0.34	2	0.94
US	69.0	2	26	1	20	2	7	2	0.82	0	1							0	15.0	1	55.6	2	45	1	0.50	2	0.78
Mean	62.0		38.8		39.8		4.6		0.71	64.4		56.6		9.5		4.7		0.83	32.3		52.4		22.9		0.31		0.90
SD	17.1		13.5		39.5		5.0		0.16	27.5		42.6		15.0		4.7		0.17	11.0		17.1		18.9		0.22		0.10
Low cut ^c	44.9		25.3		79		9.5			37		14		24.5		9.4		na	21.3		35		42		0.54		na
High cut	79		52.3		0		-0.4			92		99		-5.5		0.0		na	43.3		70		4		0.13		na

Notes:

^a All replacement rates are computed net of taxes, based on the wage of an average production worker.

^b Figures in italics are excluded from computation of mean and standard deviation.

^c Scoring inverted because high score implies less generosity.

similar (e.g. two initial values which are .9 and 1.1 standard deviations from the mean) would receive different scores: 2 and 3, respectively. Meanwhile, very different initial values (e.g. $-.9$ and $+.9$ standard deviations from the mean) both receive the same score: 2. While a superior scoring metric would be simply to use standardized scores for each programme characteristic, we retain this scoring approach throughout the paper in order to be consistent with EA's original usage.

The scoring for all elements of the index is presented next to each initial value in Table 1. There are several scoring 'exceptions,' all of which we believe to be consistent with EA's scoring. First, for unemployment and sickness waiting days and for sickness qualifying period, the minimum possible value (0) is scored 3, even though technically this value is not a standard deviation below the respective characteristic's mean.¹¹ Second, Canada's sickness benefit duration is scored 1, because it has the lowest value among the countries with a sickness-insurance programme. Third, in the case of the Swedish minimum pension replacement rate, we raised the score from 2 to 3 because the original value is extremely close to the technical cut-off point.¹² Fourth, Norway's unemployment qualifying period (four weeks) is scored 3, even though this is technically not more than a standard deviation below the mean. In all these instances, the score changes make our results correspond more closely to EA's results and concern cases 'on the margin' between two scores. Finally, we scored Denmark, Finland and Norway on the basis of their universal, flat-rate programme attributes only, since adding their earnings-related schemes into the mix gives them slightly lower pension de-commodification scores. In all these cases, this approach is also the only feasible way to account for the high pension de-commodification scores EA assigns to these countries.

We can now derive the three programme de-commodification scores that were reported in Table 2.1 of *The Three Worlds*. Again, we follow the procedure laid out in that book. First, we double the weight of the replacement rate scores, add the other programme elements with 1 to 3 scores, and multiply that sum by the programme coverage ratio. Where applicable, we used EA's stipulation that coverage should be counted as .50 for the means-tested programmes, to penalize those countries for

reliance on means-testing.¹³ Table 2 presents the de-commodification scores as presented in Table 2.2 of *The Three Worlds*. Next to them are our results, which we will refer to as 'replication results'. Again, we cannot know precisely what original values were used, but our results appear close to the mark. The correlation coefficient between our overall de-commodification measure (the sum of the three programme measures) and the one from *The Three Worlds* is .92.¹⁴ The mean score is almost identical. For the individual programmes, the correlation between our replication results and EA's scores is also very high. Pearson's r is .92 for unemployment, .96 for sickness, and .87 for pensions. The somewhat lower correlation for pensions is due almost entirely to a discrepancy in New Zealand's score. If New Zealand is corrected to be within the average absolute error of the other pension scores (i.e. scored as 10.1), the correlations between EA's and our pension and overall indices are both .92. As the bivariate correlation and Chronbach's alpha statistics at the bottom of Table 2 suggest, intercorrelation of programme scores is similar to that in EA's reported results, and suggests limited to moderate clustering among these three programmes.

Despite high correlation coefficients, there are some important differences in country scores and rankings. In Table 2, we divide the 18 countries into three groups of six in order to mimic the presentation of results in Table 2.2 in the book. A cursory glance at the two tables raises some serious questions about the 'three worlds of welfare'. First, the book presents divisions which correspond almost perfectly to 'regime type'. There are only two real anomalies: Switzerland and Finland. All the English-speaking 'liberal' countries take up the bottom six slots. The three Scandinavian countries cluster together and a large gap separates them from the three 'small, Christian Democratic *cum* Social Democratic' states: Belgium, the Netherlands and Austria. Major conservative welfare states, such as Germany and France, and more controversial ones, such as Italy and Japan, all lie in the middle group.

Our replication results, *using the same programme characteristics and scoring method*, present a quite different picture. The close fit in *The Three Worlds* simply disappears. Two of the 'conservative' welfare states (Italy and Japan) are scored in the middle of the 'liberal' group. Canada, with a liberal welfare-state history, ranks in the middle group of

Table 2 Decommodification and replication (1980)

<i>Decommodification scores in The Three Worlds of Welfare Capitalism</i>					<i>Replication results</i>				
	UE	Sick	Pension	Total Decom		UE	Sick	Pension	Total Decom
Australia	4.0	4.0	5.0	13.0	United States	7.4	0	7.0	14.4
United States ^a	7.2	0	7.0	13.8	Australia	5.0	5.0	6.0	16.0
New Zealand	4	4.0	9.1	17.1	Japan	4.5	6.2	9.4	20.0
Canada	8	6.3	7.7	22.0	Italy	4.6	7.3	10.0	21.9
Ireland	8.3	8.3	6.7	23.3	United Kingdom	7.2	7.2	8.5	22.9
United Kingdom	7.2	7.7	8.5	23.4	New Zealand	5.0	5.0	13.3	23.3
Italy	5.1	9.4	9.6	24.1	Ireland	8.3	7.5	8.0	23.8
Japan ^a	5.0	6.8	10.5	27.3	Canada	7.2	6.4	11.4	25.0
France	6.3	9.2	12.0	27.5	France	6.3	9.5	12.0	27.8
Germany	7.9	11.3	8.5	27.7	Austria	6.9	9.7	11.2	27.8
Finland	5.2	10.0	14.0	29.2	Germany	7.5	12.6	8.7	28.8
Switzerland	8.8	12.0	9.0	29.8	Finland	4.9	10.0	14.0	28.9
Austria	6.7	12.5	11.9	31.1	Belgium	10.2	7.7	13.3	31.2
Belgium	8.6	8.8	15.0	32.4	Netherlands	10.6	9.7	11.5	31.8
Netherlands	11.1	10.5	10.8	32.4	Switzerland	9.2	11.0	12.0	32.2
Denmark	8.1	15.0	15.0	38.1	Denmark	8.6	12.6	13.7	34.9
Norway	9.4	14.0	14.9	38.3	Norway	9.4	13.0	13.9	36.2
Sweden	7.1	15.0	17.0	39.1	Sweden	9.4	14.0	17.0	40.4
Mean	7.1	9.2	10.7	27.2		7.3	8.6	11.2	27.1
Standard Deviation	1.9	4.0	3.4	7.7		2.0	3.5	2.9	6.9
Coefficient of Variation	0.27	0.44	0.32	0.28		0.27	0.41	0.26	0.25
					Correlation with original scores	0.92	0.96	0.87	0.92
Correlation between programmes					Correlation between programmes				
UE–Sick $\rho =$	0.44				UE–Sick $\rho =$	0.44			
UE–Pension $\rho =$	0.23				UE–Pension $\rho =$	0.35			
Sick–Pension $\rho =$	0.72				Sick–Pension $\rho =$	0.64			
Cronbach's $\alpha =$	0.72				Cronbach's $\alpha =$	0.72			

Note: ^a 'Total Decom' score is amount in Table 2.2 of Esping-Andersen (1990), not sum of programme scores.

conservative countries. Switzerland, a liberal regime, is among the most decommodifying countries in our table.

Our replication also shows considerably less variance across the range of countries than do the results in *The Three Worlds*. In fact, the coefficient of variation is lower for two of three individual programmes (sickness and pensions). At least six of the eighteen countries rank in a group inconsistent with type. Switzerland is completely on the wrong side of the decommodification continuum.

Replication discussion: accounting for differences in scores

In the case of Japan, the reason for the change in position is substantially due to an error in the original volume which has been long overlooked by users of the decommodification index. Japan's score, based on *the programme* data provided in the book should be 22.3, not 27.3, making it one of the least generous and most commodifying welfare states.¹⁵ EA's stratification index (1990: 76) sug-

gests that Japan scores 'strong' on liberal stratification, and barely 'medium' on conservatism. These two results suggest that Japan is a clear case of welfare-state liberalism.¹⁶ Such a judgement is also consistent with that country's low level of social spending as reported in the OECD social expenditure database (Castles, 2005).

From our scoring for 1980, Italy also appears to deviate from the conservative position of moderate decommodification. To some degree this difference is generated by low coverage rates, but, as we suggest in the next section, the particularism of the Italian welfare state is underrepresented even in this low score.¹⁷

Perhaps the most confounding case is Canada, which most of the literature has grouped with the United States as a case of unadulterated liberalism. Canada has more decommodifying programme scores than all other liberal countries, especially for pensions. This requires some elaboration. Given its basically universal coverage, Canada would have to be given a score of 1 (out of 3) for both pension replacement rates to achieve the pension score in EA's index. This seems quite implausible. Our coding places Canada's minimum pension replacement rate much closer to the mean than to one deviation below the mean. Canada has, like the Nordic countries, a universal pension with a (modest) guaranteed income supplement and a (modest) earnings-related pension. The universal pension (with full supplement) net replacement rate was about 30 percent for Canada in 1980, compared with 42–3 percent in the Nordic countries. (We show in the next section that Canada's standard pension replacement rate in 1980 is even closer to the mean than suggested here.)

Finally, New Zealand scores much higher on our index than it does in the original index, due primarily to its pension system. EA's figures here are inexplicably low. In 1980, as he himself notes (p. 87), New Zealand has a universal pension system. It was, in fact, much closer in structure to Denmark's; that is, a flat-rate, universal citizen pension financed from general taxes with a modest replacement rate. New Zealand and Denmark had almost identical scores on all underlying pension characteristics: take-up rates (100 percent for Denmark and 97 percent for New Zealand, based on our sources), net replacement rates (40 percent and 42 percent), qualifying conditions (i.e. citizenship only in both

countries) and funding structure (almost all from general taxes). It seems extraordinary that Denmark, with a retirement age of 67, would receive a pension decommodification score of 15, while New Zealand, with such similar programme features and a retirement age of 60, was only scored 9.1.

Constructing a benefit generosity index

There is a reason that we referred to our decommodification indices in the previous section as 'replication results'. In making our coding decisions for replication, we sought to maximize the correspondence with EA's scores, and based judgements on what seemed to us to be understandable (if questionable) interpretations of certain programme features. In this section, we report and discuss a second set of scores which we refer to as a 'benefit generosity index', based on what we believe are the most accurate values for programme characteristics. All are in the spirit suggested in *The Three Worlds*, perhaps even more so. We believe that our alternative 'benefit generosity index' comes closest to estimating accurately these key welfare programme features. We provide a justification of the main changes to the replication entailed in our benefit generosity index.

Two things should be underscored before proceeding. First, the general method of scoring countries is the same.¹⁸ We simply have different estimates of some key programme components. Second, as in the previous section, what we call discrepancies between our coding and EA's remain speculative, as the latter's coding is unknown and based on our best attributions, not his actual figures. Table 3 provides the scores used in our reanalysis. It is very similar to Table 1, and changed values are in bold.

United States' pension score

The scores for the United States' pension benefits in the previous table undervalue the generosity of US pensions. It is possible that EA used the minimum pension amount mentioned in *Social Security Programs Throughout the World*, as well as assuming that a 45-year work history (from the age of 21 to 65) was required for full pension benefits. In fact, these amounts conceal several important elements of the US system. First, the 'minimum pension'

Table 3 Data used for Benefit Generosity Index^a

Country	Unemployment									Sickness						Pensions											
	Replacement rate ^a		Duration limit (weeks)	Qualifying period (weeks)		Waiting (days)		Coverage	Replacement rate	Duration (weeks)	Qualifying period (weeks)		Waiting (days)		Coverage	Minimum pension replacement	Standard pension replacement	Qualifying period (years)	Employee funding %		Take-up						
Australia	26.0	1	<i>none</i>	3	0	3	7	2	0.50	28.0	1	<i>none</i>	3	0	3	7	2	0.50	28.0	2	28.0	1	0	3	0	3	0.84
Austria	58.0	2	30	2	156	1	0	3	0.69	74.7	2	30	2	0	3	3	2	0.88	42.2	2	80.3	3	45	1	0.47	2	0.86
Belgium	65.9	2	<i>none</i>	3	75	2	0	3	0.85	87.8	2	52	2	26	1	1	2	0.96	27.5	2	81.0	3	39	2	0.42	2	1.00
Canada	59.8	2	40	2	52	2	14	1	0.80	59.8	2	15	1	20	2	14	1	0.80	30.0	2	40.0	2	14	2	0.50	2	0.95
Denmark	81.8	3	442	3	26	2	0	3	0.61	81.9	2	<i>none</i>	3	0	3	0	3	0.97	41.9	2	45.6	2	15	2	0.33	2	0.98
Finland	34.4	1	40	2	26	2	5	2	0.62	40.8	2	50	2	13	2	7	2	1.00	42.5	2	56.8	2	40	2	0.10	3	1.00
France	67.7	2	52	2	13	2	0	3	0.57	59.0	2	156	3	52	1	3	2	0.95	35.4	2	59.1	2	37.5	2	0.37	2	1.00
Germany	68.0	2	52	2	104	1	0	3	0.75	100.0	3	78	2	0	3	0	3	0.90	17.5	1	75.5	3	45	1	0.50	2	0.79
Ireland	60.0	2	65	3	48	2	14	1	0.69	60.0	2	<i>none</i>	3	156	1	14	1	0.69	31.1	2	36.3	1	25	2	0.28	2	0.83
Italy	4.1	1	26	1	104	1	0	3	0.46	68.5	2	26	2	0	3	3	2	0.66	18.8	1	60.6	2	40	2	0.30	2	1.00
Japan	68.8	2	30	2	26	2	7	2	0.45	51.6	2	26	2	0	3	3	2	0.56	17.2	1	48.5	2	25	2	0.50	2	0.94
Netherlands	86.2	3	26	1	26	2	0	3	0.88	86.2	2	52	2	0	3	2	2	0.88	53.2	3	53.2	2	0	3	0.62	1	0.82
New Zealand	33.1	1	<i>none</i>	3	0	3	7	2	0.50	35.7	1	<i>none</i>	3	0	3	7	2	0.50	40.1	2	40.1	2	0	3	0	3	0.95
Norway	70.2	2	40	2	4	3	3	2	0.85	100.0	3	52	2	2	2	0	3	1.00	42.5	2	54.6	2	13	2	0.36	2	0.99
Sweden	82.0	3	60	3	52	2	5	2	0.72	96.7	3	<i>none</i>	3	0	3	1	2	1.00	43.2	3	64.1	2	20	2	0	3	1.00
Switzerland	68.5	2	30	2	26	2	1	2	0.92	83.2	2	120	3	13	2	3	2	1.00	33.0	2	40.7	2	32	2	0.50	2	1.00
UK	45.8	2	26	1	50	2	12	1	0.90	45.8	2	26	2	26	1	12	1	0.90	31.2	2	37.5	1	45	1	0.34	2	0.94
US	69.0	2	26	1	20	2	7	2	0.82	0								0	33.0	2	55.6	2	31	2	0.50	2	0.94
Mean	58.3		38.8		44.9		4.6		0.70	64.4		56.9		9.5		4.7		0.83	33.8		53.2		25.9		0.34		0.93
SD	21.6		13.5		41.7		5.0		0.16	27.5		42.3		15.0		4.7		0.18	9.9		15.3		16.0		0.19		0.1
Low cut ^c	36.7		25.3		87		9.5			37		15		24.5		9.4		na	23.9		38.0		42		0.54		na
High cut	80		52.3		3		-0.4		0.69	92		99		-5.5		0.0		na	43.7		69.0		8		0.13		na

Note: ^aDifferences from Table 1 are in bold.

Source: Welfare Entitlements Dataset, authors' calculations.

excludes important income-tested supplements. Such supplements are clearly counted in other countries. The federal Supplemental Security Income (SSI) programme pays a supplemental benefit – up to \$238 per month in 1980 – for those with low income who are over the age of 65. This would raise the minimum replacement rate from around 15 percent to 26.4 percent of the net APW wage. (This moves it to within a standard deviation of the mean, thus increasing its coding from 1 to 2.) In addition, recipients of SSI automatically qualify for the Federal Food Stamp programme, which provides a sizeable boost in the income of the poor. The inclusion of this assistance raises the minimum pension replacement rate considerably, to around 33 percent, *very close to the average minimum replacement rate*.¹⁹

Second, thanks to more generous qualifying terms under ‘New Start Allowances’, those transitionally insured in Social Security received extra credits for early years of coverage. Similarly generous transitional benefits were almost certainly counted for other countries, such as Sweden. As a result, an APW retiring at the age of 65 in 1980 would obtain full benefit entitlements if they began insured employment in 1948. This implies a qualification period of only 31 years, not 45. This moves the US score to within a standard deviation of the mean.

Finally, EA’s take-up rate, given the overall pension score and possible scores on specific characteristics, would appear to be too low. Our estimates from Social Security Administration data, which include the portion of those aged over 65 (estimated to be about 3 percent in 1980) who draw only SSI benefits, suggest almost universal coverage (93 percent) of those aged over 65.²⁰ Overall, our results suggest a much higher (4.3 points) pension and decommodification scores for the United States.

Canadian pension score

What we take to be EA’s scoring of Canada’s standard pension is, by our reckoning, too low. A retiree receiving only the universal pension and the maximum earnings-related pension payable in 1980 is also entitled to a top-up from the Guaranteed Income Supplement. (That supplement is withdrawn at 50 cents on every dollar above the amount of the full minimum pension.) This raises the stan-

dard replacement rate for Canada by more than 10 percent, from around 36 percent of net APW wages to around 40 percent. This change leaves Canada’s decommodification index unchanged (the replacement rate is still scored as a 2), but reinforces our earlier contention that Canada’s pension system is more generous than EA’s scoring implied.

Australian pension score

The rightful place of Australia and New Zealand in the typologies of welfare capitalism has been in dispute practically since *The Three Worlds* was published (Castles and Mitchell, 1993). Few have really reflected on the enormous penalty that EA’s scoring method has on benefit programmes which essentially exclude only the top 15–20 percent of the income distribution. With scarcely any analysis, EA gave a coverage score of 50 percent for sickness and unemployment programmes in New Zealand and Australia, as well as for Australia’s pension programme.

Actual rates of receipt for these programmes are all almost certainly higher than this. In 1999 (the only year for which data are available to us), the number of jobseekers collecting *some* unemployment benefit was 85–95 percent of unemployed people in both Australia and New Zealand (Ministry of Social Development, 2003; FaCS, n.d.). This rate, incidentally, compares favourably with actual rates of receipt in other countries, and there is little reason to believe that things in the Antipodes have changed for the worse since 1980.²¹ For Australian pension take-up rates, actual coverage rates are certainly much higher than the 50 percent figure used in *The Three Worlds*. In 1980 around 85 percent of those above retirement age received some state pension. In 1999, a large majority of pensioners (around 65 percent) receive the full amount (FaCS, n.d.: 5). The percentage for 1980 is likely to be even higher because there was no means test for people over the age of 70.

Taking these facts into account, if Australia and New Zealand were scored for coverage at their actual take-up rates rather than the arbitrary 50 percent figure EA uses, decommodification scores would rise by 8–11 points for Australia and 4 to 5 points for New Zealand. This would place Australia squarely in the middle of the distribution of countries, and New Zealand among the more decom-

modifying countries. Thus, how these two countries are scored for coverage is, indeed, critical to how accurately the empirically based decommodification index correlates with the 'idealized' types of welfare states.

Ultimately, however, we disagree with Castles and Mitchell (and thus agree with EA) in several important respects. Most countries provide indefinite means-tested benefits for unemployed or sick people who are no longer eligible for regular social insurance. Thus, the countries of the Antipodes are more restrictive in providing only means-tested benefits.

We do, however, use actual take-up rates in computing the pension index. Doing so is more consistent with how means-tested benefits are treated in other countries for several reasons. First, all the minimum pension benefit replacement rates involve means-testing. This even includes the Nordic countries, whose high minimum replacement rates are based in large part on generous, but income-tested, supplements to the basic benefit. For example, in Denmark, Finland, Norway and Sweden, respectively, net replacement rates for basic pensions only are: 36 percent, 8 percent, 30 percent and 29 percent, respectively. Second, pension *coverage* data for many countries almost certainly include large numbers of people receiving means-tested pension supplements. Again, the Nordic countries in particular stand out in this regard. Based on data for the 1990s, between 15 percent and 30 percent of pensioners in the four Nordic countries receive *only* the minimum basic pension and income-tested basic pension supplements (Nordic Social Statistical Committee, 2003: 125). An even larger percentage receives at least *some* income-tested pension.²²

A third reason that we use pension take-up rates is that in 1980, the old-age pension in Australia was universal for those aged over 70 and only means-tested for people between the ages of 65 and 70. In contrast, pensions were completely unavailable in Denmark and Norway until the age of 67. It seems inconsistent that the former merits a 40 percent penalty in scoring when almost all persons over age 65 received at least some public pension, while in the latter pensions were accorded full consideration.

The unfairness of Australia's pension scoring can be illustrated with a stylized example. What would happen if: (a) the Nordic countries all dropped their universal pensions to the paltry level of Finland's;

and (b) both they and Australia expanded their means-tested benefits to ensure that the *minimum* pension replacement rate was equal to the highest *standard* pension replacement rate? By the rules applied in the scoring in *The Three Worlds*, the Nordic countries would be scored 18, and Australia would be scored 9.

Ultimately, these pension changes do not fundamentally change Australia's 'regime type'. Australia remains in the liberal category, since its score only increased by about 4 points. This is because Australia's pension replacement rates are quite low, while its coverage is high. This is, in fact, exactly what we might expect from a liberal regime: high individual coverage but very low benefits that do not 'crowd out' the market for private saving schemes. These changes do, however, further reduce the amount of variation in actual welfare-state decommodification scores.

Italian unemployment score

In the last section of this article we suggested that, based on the only reasonable approximations we could derive, Italy performs far worse on the decommodification index than scores in *The Three Worlds* suggest. In fact, Italy's performance is subject to a further downward revision. It seems almost certain that the Italian unemployment benefit replacement rate and qualifying conditions used in *The Three Worlds* refer to the 'special' benefit, which replaces two-thirds of gross income, while the coverage data used refers to the standard unemployment benefit which, in 1980, was an austere 800 lire per day (Ferrera, 1987). As neither benefit applies to the self-employed or public-sector employees (jointly about 45 percent of the labour force) and then only on certain other conditions, and the special benefit could only be taken up by those in the industrial sector, special benefit coverage would have to be much lower than the reported 46 percent. To be consistent, we used the regular unemployment programme conditions, and Italy's unemployment decommodification score falls from 4.6 to only 3.2.²³ (Bizarrely, the more meagre standard benefit is harder to qualify for.) This change places the country's decommodification level even more squarely among the liberal countries.

Irish unemployment and sickness scores

There are several ways in which programme scoring in our benefit generosity index and *The Three Worlds* is inconsistent. First, EA's coverage rates for sickness and unemployment programmes appear to come from Flora's *Growth to Limits* (Maguire, 1987: 468) and seem to be based on figures given there for 'all socially insured'.²⁴ However, unemployment and sickness benefits are not paid to the self-employed or civil servants. Instead, we use percentage of labour force insured for all benefits, which is closer to the percentage of the labour force that was neither self-employed nor a civil servant. Reducing the coverage to this lower figure reduces Ireland's scores considerably (-1.4 for unemployment, -1.3 for sickness and -2.4 overall). This places Ireland back squarely in the category of low decommodification.

Swedish pension score

Sweden is a case where the rules affecting how past wages are considered in computing the pension matters for computing the replacement rate. Reported pension replacement rates often simplify a complex formula by using the wage in the year of retirement as the average working-life wage (e.g. Nordic Social Statistical Committee, 2003). This usually overestimates the benefit. In Sweden, the full earnings-related pension (prior to the implementation of the 1995 reforms, at least) was 60 percent of the product of the 'basic amount' in the year of retirement and the average pension points earned in a worker's 15 highest pension point years. Pension points in a given year were equal to wages in that year divided by the basic amount for that year. Generally, the annual number of pension points has grown over time.²⁵ Thus, for an APW wage, the average of the past 15 years' points will be considerably lower than the points earned by an APW at the year of retirement. Using the more correct number of points lowers the standard net replacement rate by about 10 points, more than enough to move Sweden to within a standard deviation of the 18-country mean. This lowers its score by 2 points.

Belgian, Italian, Japanese and Swiss pension scores

As with Sweden, the pension replacement rates in Table 1 for Belgium, Italy, Japan and Switzerland were computed using the APW wage in the year of retirement as the average, revalued lifetime wage. Entries in Table 3 use more accurate wage revaluation procedures. As with Sweden, this lowers pension replacement rates. Unlike Sweden, however, none of the changes for these countries affects decommodification scores, because none moves a replacement rate past a scoring cut-off point.

Other Nordic (Danish, Finnish and Norwegian) pension scores

These three countries were scored in Table 1 as if they had no earnings-related pension scheme, even though all had such schemes from the 1960s onwards. We scored them this way because it made their scores closer to EA's results. This is because the higher replacement rates under the earnings-related schemes did not raise their 'standard pension' replacement rates from a score of 2 to a score of 3, but the qualifying conditions for receiving the earnings-related pensions were more stringent, and tended to reduce those programme scores from 3 to 2.²⁶ In Table 3, we included the earnings-related programmes in these countries, as they existed at the time and regardless of how it affected their scores.

On the one hand, excluding their earnings-related schemes seems to make sense. Retaining the universal, largely flat-rate scheme seems as decommodifying a basic pension structure as a non-universal scheme with higher replacement rates. Moreover, it may seem odd to demote a country's score for providing an earnings-related benefit on top of a basic one. On the other hand, one can point to numerous other shortcomings in the overall scoring scheme that might bias scores in important ways. For instance, there are reasons to believe that pension coverage data exclude civil-service pensioners. This approach penalizes countries with completely separate schemes for public-sector workers (e.g. most 'liberal' or 'conservative' welfare states), but not countries which provide civil servants with generous benefits through a supplementary scheme placed on top of universal ones (e.g. the Netherlands or Nordic countries).

A second argument for using earning-related programme characteristics for all countries is that replacement rates are, as EA notes on several occasions, the critical element of decommodification. Generous terms and high coverage which deliver very low benefits are not market-displacing, and are simply a poor law without the formal means test. There is no inconsistency in penalizing countries for offering only high minimum pensions, but failing to provide adequate replacement rates for most (i.e. APW) workers. Indeed, it is more consistent with the distinguishing features of ideal-typical universal and conservative welfare states. Universal welfare states combine high minimum *and* earnings-related replacement rates with generous qualifying conditions for both; conservative regimes combine meagre unconditional basic benefits with high 'standard benefits' which are subject to more stringent qualifying conditions.²⁷

The third, and final, argument for proceeding as we do is consistency with the remaining Nordic case: Sweden. Sweden has a pension structure very much like Norway's, (and somewhat like Finland's), and it was obviously scored taking its earnings-related scheme into account. Sweden's score is 17 on the decommodification index, which means that it must have been scored 3 for the standard replacement rate.

Discussion

There are some striking differences in the results from our reanalysis. Table 4 redisplayes the original decommodification scores along with our benefit generosity index. Both are grouped and ranked. Based on our rendering, it is considerably more difficult to speak of clear welfare-state clusters. First, three 'conservative' countries in the original formulation appear much more liberal in our results. Overlaying EA's social stratification index and our benefit generosity index makes Italy look even more like a liberal-conservative hybrid than a conservative welfare state. It is also notable that Italy is less *consistently* decommodifying than is the USA. In fact the USA scores higher than Italy on two of the three individual programme scores.

Japan looks much more unabashedly like a liberal welfare state, combining high commodification with high liberalism and (barely) moderate 'conservatism' in EA's stratification index.²⁸ Perhaps the

Japanese welfare state owes more to the (relatively) recent USA's occupation than they do to the more distant legacy of Bismarkian institutions. Viewed this way, Japan may be an example of how a conservatively rooted welfare state has, in fact, been changed into a liberal one.

Two 'liberal' regimes have benefit generosity scores that place them in the middle third of countries: New Zealand and Canada. As was true in the replication, Canada scores much closer to 'conservative' France and 'social democratic' Finland than it does to 'liberal' Australia or the United States (Esping-Andersen, 1990: 54). New Zealand's score is unchanged from our replication; it rises into the middle category simply because Ireland's score fell. Nevertheless, our results suggest that, even if one ignores Castles and Mitchell's critique of the decommodification scoring, New Zealand fits uneasily into the category of 'liberal' welfare state. If one takes a view more sympathetic to Castles and Mitchell, counting the actual portion of unemployed people taking up some unemployment benefits or potentially eligible for sickness benefits, New Zealand would score in, or very close to, the top third of the countries. In that case, it would constitute another clear scoring anomaly.

Switzerland is the most extreme anomaly in the index. On EA's stratification index, it appears as an extremely liberal case (receiving the highest possible liberalism score). Yet, in his decommodification index, it received a middling decommodification score. In our generosity index (and in the replication), it scores in the top third; closer to Sweden than to the closest 'liberal' country.

As in EA's results, the Netherlands is enigmatic. In EA's stratification index, it scored moderate to high in all three regime dimensions and close to the Nordic countries in the decommodification index. While it was originally classified as a social democratic regime (Esping-Andersen, 1990: 76), it later appears to be scored as conservative and social democratic (Esping-Andersen, 1999: 77, 86). Its score is actually close to the Scandinavian countries in our index, though its rank is lower.

It is notable that later chapters of *The Three Worlds* emphasize the importance of pension systems in the overall decommodification potential and distinguishing characteristic of welfare states. Discrepancies in pension scores are, in fact, what primarily underlie the discrepancies between our

Table 4 Decommodification and benefit generosity indices in 1980

<i>Decommodification scores in The Three Worlds of Welfare Capitalism</i>					<i>Benefit generosity index results</i>				
	UE	Sick	Pension	Total Decom		UE	Sick	Pension	Total Decom
Australia	4.0	4.0	5.0	13.0	United States	7.4	0	11.3	18.7
United States ^a	7.2	0	7.0	13.8	Japan	4.5	6.2	9.4	20.0
New Zealand	4	4.0	9.1	17.1	Australia	5.0	5.0	10.1	20.1
Canada	8	6.3	7.7	22.0	Italy	3.2	7.3	10.0	20.5
Ireland	8.3	8.3	6.7	23.3	Ireland	6.9	6.2	8.3	21.4
United Kingdom	7.2	7.7	8.5	23.4	United Kingdom	7.2	7.2	8.5	22.9
Italy	5.1	9.4	9.6	24.1	New Zealand	5.0	5.0	13.3	23.3
Japan ^a	5.0	6.8	10.5	27.3	Canada	7.2	6.4	11.4	25.0
France	6.3	9.2	12.0	27.5	Austria	6.9	9.7	11.2	27.8
Germany	7.9	11.3	8.5	27.7	France	6.3	9.5	12.0	27.8
Finland	5.2	10.0	14.0	29.2	Finland	4.9	10.0	13.0	27.9
Switzerland	8.8	12.0	9.0	29.8	Germany	7.5	12.6	8.7	28.8
Austria	6.7	12.5	11.9	31.1	Netherlands	10.6	9.7	11.5	31.8
Belgium	8.6	8.8	15.0	32.4	Switzerland	9.2	11.0	12.0	32.2
Netherlands	11.1	10.5	10.8	32.4	Belgium	10.2	8.6	14.0	32.9
Denmark	8.1	15.0	15.0	38.1	Denmark	8.6	12.6	11.8	32.9
Norway	9.4	14.0	14.9	38.3	Norway	8.5	13.0	11.9	33.4
Sweden	7.1	15.0	17.0	39.1	Sweden	9.4	14.0	15.0	38.4
Mean	7.1	9.2	10.7	27.2		7.1	8.6	11.3	27.0
Standard Deviation	1.9	4.0	3.4	7.7		2.1	3.5	1.9	5.8
Coefficient of variation	0.27	0.44	0.32	0.28		0.29	0.41	0.17	0.21
					Correlation with original scores	0.87	0.95	0.70	0.87
Correlation between programmes					Correlation between programmes				
UE–Sick r =	0.44				UE–Sick r =	0.45			
UE–Pension r =	0.23				UE–Pension r =	0.36			
Sick–Pension r =	0.72				Sick–Pension r =	0.30			
Cronbach's α =	0.72				Cronbach's α =	0.59			

Note: ^a 'Total Decom' score is amount in Table 2.2 of Esping-Andersen (1990), not sum of programme scores.

overall benefit generosity scores and the original decommodification index. Public pension generosity among these 18 OECD countries in 1980 is *much* less varied than previously assumed.

As a cornerstone of much analysis of cross-national variation in welfare-state outcomes, the decommodification index has almost iconic status in the comparative social policy literature. Our analysis suggests considerable measurement problems in the original results. Once these problems are overcome, our updated 'benefit generosity index' fails to do a very good job of distinguishing between

the ideal-type 'liberal,' 'conservative' and 'social democratic' regimes.

Perhaps more fundamentally, our analysis raises doubts about whether it is even meaningful to speak of 'welfare regimes'. Most of the regimes literature, and this includes many studies which seek to 'add' a fourth or fifth 'world' of welfare, take it as given that there is coherent clustering across welfare programmes. Yet, as Shalev (2002) notes, in *The Three Worlds* there are not actual tests of such an intercorrelation. Our replication measures suggest that any such clustering is, at best, very weak. For

example, the bivariate correlation coefficients between unemployment (U), sickness (S) and pensions (P) generosity scores in our index are $US = .45$, $UP = .36$, $SP = .30$. Only the first of these is statistically significant from zero. The Cronbach's alpha reliability score is only .59 for these three measures, which is far below the standard cut off of .80 for this statistic. If, as our results suggest, scores among social-insurance programmes are so weakly inter-correlated, we might just as well talk about the individual welfare programmes, not regimes.

Conclusion

It is hard to overstate the significance of the impact of *The Three Worlds of Welfare Capitalism* on comparative studies of the welfare state. Among its most critical contributions was attaching an empirical basis to what was in many respects simply a presentation of ideal types. This was important because solid empirical foundations make these ideal types practical analytical categories. Based on those results, a large number of studies have taken EA's empirical data as basic parameters for classifying cases and organizing research. One could probably cull hundreds of papers which are premised on discussing or comparing cases based on his indices. Questions about the typology have, up to now, gone mostly around the edges, seeking to 'expand' or 'explain away' a particular pet case or outlier.

Our analysis suggests that decommodification indices are not strong elements of regime classification. Our benefit generosity index also suggests that EA's index provides an inaccurate picture of actual cross-national variation in 'decommodification'. Relying on the same characteristics as the original decommodification index, our results suggest a very different ordering and clustering of countries. Based on our analysis, the previous results misclassified almost half of the cases. Though we still find some meaningful differences – Sweden is, after all, more generous than the United States – our results may alter previous empirical findings.

Our results also suggest that there is little evidence of national regime coherence across these three programmes. A high score for unemployment insurance, for example, is *not* closely linked with a high score for sickness insurance or pension insurance. This implies that there are not elective affinities within countries' social insurance programmes,

an assumption on which the whole notion of distinctive regimes rests. The possible exception here is for the most generous group. The three Scandinavian countries, plus the Netherlands, tend to do well on all three programmes.

We hope that our results provoke a re-evaluation of some accepted facts regarding what causes certain types of welfare-state development, and what effects certain 'types' of welfare states have. That said, our results only deal with one of the two main empirical dimensions on which the three worlds typology was originally built. The other, the welfare stratification index, has probably come in for even less direct critical analysis than decommodification. Perhaps our results will also prompt an examination of that dimension as well.

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Notes

- 1 The primary data used in this article are the result of a multi-year effort by the authors. Important assistance was provided by public officials in all the countries covered. Essential support for the data collection project comes from the National Science Foundation (SES-0095367). The preliminary data set and codebook, covering all the data collected for years 1960–2002, are available from our website [<http://sp.uconn.edu/~scruggs/welproj.htm>]. We invite comments and discussion. Following a period of comment, we plan to publish a final version of the data set.
- 2 Most of our data go back to the 1960s. However, important elements of the decommodification index, specifically post-tax replacement rates, are not available that far back.
- 3 There is a great deal of confusion surrounding country placement into one of the three regimes, as well as the actual dimensions of the regime. This is obviously an exercise in which judgements have to be made, but the confusion is compounded by the fact that definitional and analytical rigour has often been lacking (Powell and Barrientos, 2002).
- 4 One recent paper, indeed, criticized EA's methodology for relying too much on 'individual judgment'. Yet, even in constructing a more rigorous defence of the typology, it had to rely on the data from the book (Shalev, 2002).
- 5 We did contact Esping-Andersen and SOFI at the beginning of our project to obtain details of their data collection results. We received no response to our

- requests from SOFI and EA referred us to them for the data underlying the decommodification index.
- 6 Whether benefits are taxed varies and has implications for the comparability of welfare outcomes (see Adema, 1998; 2001). While the OECD has an (unpublished) series of unemployment benefit replacement rates back to the 1960s, these estimates are all for gross replacement rates. Specific details on our calculations are provided in the replacement rate data and supporting documentation available at the authors' website.
 - 7 Palme's dissertation does not contain precise replacement rate estimates, only line graphs of national values.
 - 8 In those cases where the length of benefit is a function of the length of insurance coverage, we have assumed a fully insured 40-year-old worker.
 - 9 The percentage of the unemployed (or sick) who actually receive benefits is generally lower than the coverage rate, as the unemployed population typically includes those who have exhausted their benefits.
 - 10 Where higher value implies less generosity (e.g. waiting days), we reversed the scoring (i.e. above one SD is scored 1, below 3). Outliers are given a score of 1 (low) or 3 (high).
 - 11 Based on EA's scores, we believe he also did this. For example, Sweden receives the maximum overall score for sickness programme decommodification (15), though its zero-week qualifying period was not more than a standard deviation below the mean. Nine other countries also had no qualifying period.
 - 12 Sweden is within tenths of a point from the cut-off and altering Sweden's scoring here is the only feasible way to make its score match EA's. In his more explicit discussion of stratification scores, cut points are also not strictly adhered to.
 - 13 It is not stated precisely in *The Three Worlds* which programmes in which countries are so penalized. From our data and the text, we could only identify five cases where this rule was applied: unemployment and sickness programmes in New Zealand and Australia, and pensions in Australia.
 - 14 This figure takes Japan's total score as the sum of its three programme scores, *not* the figure given in our Table 2 and in Table 2.2 in EA's book.
 - 15 There is a similar, but inconsequential, error for the USA. It does appear that in his empirical analyses later in the book, EA uses the lower score for Japan.
 - 16 EA (1997; 1999) argues that other programmatic features justify defining that country as a conservative-liberal hybrid. It is true that Japan has elements of conservative familialism, and some benefit differentiation based on the size of firm one works for, but these elements are all present in other liberal welfare states. For example, larger firms in the USA and Canada have traditionally provided access to better welfare benefits (health care, occupational pensions, sick pay) than are afforded to those working for small employers, much as has been the case in Japan.
 - 17 Italy poses a problem because of particularism and incoherent coverage. Terms and conditions for benefits vary, from sector to sector, and even from firm to firm. Special benefits, paying higher rates, tend to apply to workers in larger firms. Ultimately, Tables 2 and 4 demonstrate that, no matter which replacement rate is used, Italy's *decommodification* score is among the lowest.
 - 18 We even retain the procedure of coding countries with the minimum/maximum possible score with the appropriate minimum/maximum value (i.e. 1 or 3), whether or not such a score is a standard deviation above/below the mean. Note that if we did not do so, the variance in overall programme and decommodification scores is even smaller.
 - 19 The inclusion of Food Stamps requires comment. Not technically a cash benefit, it is a near-cash benefit which is routinely included as transfer income in international comparisons (such as the Luxembourg Income Study). Even if Food Stamp benefits are excluded, the replacement rate is still within a standard deviation of the mean.
 - 20 For other countries, such as Italy or Ireland, it seems likely that 'social pensioners' were counted in take-up figures used in *The Three Worlds*.
 - 21 Coverage for *sickness* benefits is very hard to estimate, but coverage is probably somewhat lower than for unemployment. The risk of short-term illness is probably (more) proportionally distributed across income strata. In other words, compared with those getting sick, those also more likely to become unemployed are more likely to fall below the means test.
 - 22 The number of means-tested supplement recipients in 1980 was, in all likelihood, even *higher* than the figures we report here for the 1990s. Earnings-related schemes were more 'mature' by the 1990s, meaning that more people would have been above the means-test thresholds.
 - 23 The Italian programme we are unable to replicate closely from EA's scoring is sick pay. (The differences for pensions and unemployment are likely related to slight differences in coverage rates.) Our coverage figure, from Ferrera (1987) in *Growth to Limits*, is 66%, and is likely in line with EA's. Its replacement rate is at the mean of the other countries, so it is not likely to have been scored 3.
 - 24 It is technically possible that the coverage level used in *The Three Worlds* was only 69%, but this would require a raw (unadjusted for coverage) score of 12 out of 15 for both unemployment and sickness insurance. We are unable to find any consistent way for scoring those programmes to be so high.
 - 25 For example, an APW wage accrues the following number of points in 1970, 1980 1990 and 2000, respectively: 2.92, 4.04, 4.21 and 5.29.
 - 26 Based on the scoring formula, including the Danish ATP means adding a non-zero qualifying period – 16 years in 1980 as opposed 0 for the universal programme – and adds a moderate funding burden to the pension funding column, because employees pay one-third of ATP contributions and employers pay two-thirds. As a result Denmark's score in these two categories would move from 3 to 2, a reduction in generosity/decommodification of about 2 points. Given

the modesty of the ATP benefit – about 2% of gross APW wage in 1980 – Denmark's standard pension replacement rate increases from 41.9 to 45.6. Both values are within a standard deviation of the 18-country mean. Thus, whether or not the earnings-related programmes are included, Denmark is scored 4 (replacement rate is doubled) on that component. So including the ATP lowers the decommodification score, given EA's formula.

27 We might also expect social democratic and conservative regimes to differ on the ratio of *average to high earner* replacement rates. This is something that EA measures in the stratification index and finds that there is indeed greater equality in the 'social democratic' regimes.

28 It is true that Japan has a number of 'special occupational pension funds' which make it look more corporatist or statist. However, the US system would also look much more 'corporatist' if its extensive geographic stratification (state and local pension funds for teachers and other civil servants) were taken into consideration.

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