

Money for everyone?

An appendix for chapter 11

Causality and proof in Richard Wilkinson and Kate Pickett, *The Spirit Level: Why More Equal Societies Almost Always Do Better*¹

Many of *The Spirit Level*'s chapters contain discussions on how inequality and/or income inequality cause the levels of health and such other social indicators as the level of trust, the amount of mental illness, life expectancy, infant mortality, obesity, educational performance, teenage pregnancy, murder rates, imprisonment rates, and social mobility. Whilst Daniel Dorling understands a diverse inequality as 'the antecedent and outcome of injustice',² Wilkinson and Pickett take income inequality as a signal of a more general social inequality, and then treat it as the causal factor underlying all of the other variables. However, as David Hume suggests: 'When we look about us towards external objects, and consider the operation of causes, we are never able, in a single instance, to discover any power or necessary connexion; any quality, which binds the effects to the cause, and renders the one an infallible consequence of the other. We only find, that the one does actually, in fact, follow the other':³ and here it is not even clear that the temporal relationship is in one direction only. Owens and Sosa and Tooley⁴ have written more recent treatments of the problematic notion of causality, and they, like Hume, and in fact *The Spirit Level*,⁵ raise the question as to whether a coincidence of phenomena can ever lead to a proper conclusion that one action *causes* the other. They also raise the question as to whether we can even say what we mean by the word 'cause'. I shall continue to employ the notion of cause whilst recognising that we can't be sure what the term means or whether causality is operating between inequality and social ills – because, as Immanuel Kant suggests,⁶ without the notion of causality we find it impossible to reason about anything.

A subsequent question is this: If there is a correlation between income inequality and other social ills, then in which direction does causality operate? Are social ills the result of inequality, or is inequality the result of social ills? And what would it take to prove which it is?

Unfortunately the notion of proof is just as difficult as the idea of causality. Karl Popper⁷ suggests that science comprises a set of bold hypotheses which we can falsify but which we cannot prove. All we can do is seek evidence which supports a hypothesis and thus constructs a cumulative argument. Thomas Kuhn⁸ shows how a paradigm shift occurs, takes root within scientific communities, and forms the basis for further exploration. *The Spirit Level* has already contributed to the establishment of a new paradigm with the concept of in-country inequality at its heart, and further research on the different kinds of inequality (educational attainment, housing, social capital, income, power, relationships with powerful people, etc.), and on how they relate to each other, will help to build such a paradigm, as will discussion of the extent to which a generalised 'inequality' exists and relates to particular kinds of equality. But for enhanced understandings of inequalities to cohere into a paradigm, a deeper understanding of causal links is required. Readers interested in exploring this issue further should see the appendix to this chapter.

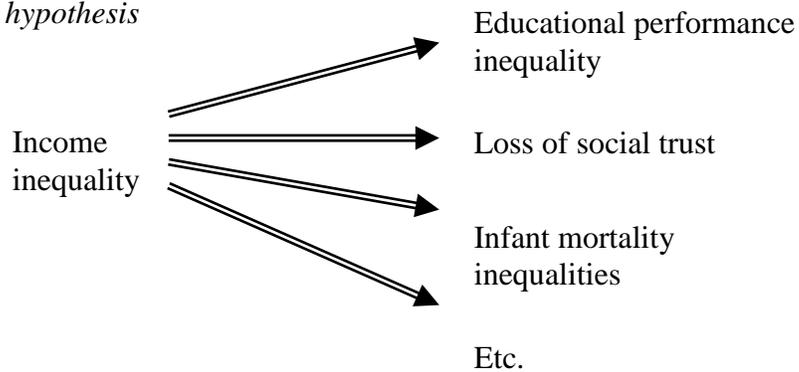
We are therefore left in a situation of uncertainty: Are Wilkinson and Pickett correct, and income inequality is the cause of other social ills; or is the picture a more complicated one?

Social structures and processes

The general inequality to which the particular inequalities belong, and with which the levels of social ills correlate, might in former times have been spoken of in terms of social class. This raises the issue as to whether a fundamental social hierarchy underlies the different kinds of inequality. If there is such a social hierarchy then it might be that hierarchy which is the independent variable, and income inequality and other particular inequalities which are dependent variables alongside the social ills which the authors find to be related to them.

In diagrammatic form (*Figure 8*):

The Wilkinson / Pickett hypothesis



The additional hypothesis (Table 2)

	Policy area	Instruments	outcome
Underlying social structure	→ Educational infrastructures	→ Public schooling for some, private schooling for others, admissions policies benefiting some and not others, etc.	→ Unequal educational performance outcomes
	→ Tax/benefit structures	→ Poverty traps and high marginal deduction rates for some, subsidies and low marginal deduction rates for others	→ Income inequality
	→ Environment, housing, segmented society, etc.	→ Warm and dry housing with safe outdoor space for some, not for others; quiet space for homework for some, not for others; connections leading to jobs for some, not for others, etc.	→ Unequal social, health, and wealth outcomes

To offer an additional hypothesis brings with it an obligation to find supporting evidence (evidence which supports it, not evidence which proves it).

Esping-Andersen's welfare state categories ⁹

Esping-Andersen scores welfare states for corporatism (the number of large occupationally distinct public pension schemes), etatism (expenditure on pensions for government employees), means-tested poor relief, private pensions (as a proportion of total pensions), private health spending (as a proportion of the total), universalism (social security benefits available to every citizen, excluding income tested schemes), and average benefit equality (the ratio of the legal maximum benefits possible to the guaranteed minimum income). By combining these scores, each country is then scored for conservatism (corporatism), socialism (i.e., universalism and equality), and liberalism (private provision, with a residual, means-tested welfare state). Esping-Andersen discovers some clear clusters of countries, and he is able to characterise their welfare states thus:

Table 3

Type of welfare regime	Character	Represented by
Social democratic regime / 'socialism'	The state is committed to full employment, generous universalist welfare benefits, income redistribution, &c	Denmark, Finland, Netherlands, Norway, and Sweden
Conservative / corporatist regimes	Occupationally segregated benefits	Germany, France, Austria, Belgium, and Italy
Liberal welfare regimes	Private provision, selective provision, and a residual safety net for the poor	Australia, Canada, Japan, Switzerland, and the United States

The countries listed in the right hand column are those which score 'strongly' for each of the welfare regime types. The same countries will also score 'medium' or 'low' for the other welfare regime types. Some countries don't score strongly for any particular type: the UK, for example, scores 'low' for conservatism (corporatism), and 'medium' for both liberalism and socialism.

Welfare regime types and income inequality

Do the welfare regime types correlate with income inequality?

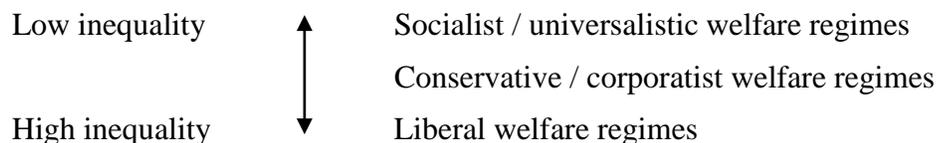
The first column in the table below shows the ratio of the average net income of those in the highest income decile to the average net income of those in the lowest income decile, and the other three columns identify the welfare regime types for which the countries score strongly:

Table 4

Country	Ratio ¹⁰	Socialist	Conservative	Liberal
Japan	4.5			X
Finland	5.6	X		
Norway	6.1	X		
Sweden	6.2	X		
Germany	6.9		X	
Austria	6.9		X	
Denmark	8.1	X		
Belgium	8.2		X	
Switzerland	9.0			X
France	9.1		X	
Netherlands	9.2	X		
Canada	9.4			X
Italy	11.6		X	
Australia	12.5			X
United States	15.9			X

Because Esping-Andersen's figures were published in 1990 and were often drawn from mid-1980s sources, and the income ratio figures are far more recent, we need to treat any correlation we discover with a degree of scepticism; but there clearly is a correlation between welfare regime type and income inequality. The real outlier here is Japan, which combines a highly liberal welfare state with an income equality based on an originally egalitarian distribution of earned income rather than on any redistribution of initially unequally distributed incomes: a characteristic at least partly explained by status attaching to clear status position within companies rather than to earned incomes. For the other outliers there are also rational explanations: The Netherlands scores strongly for socialism, but it also scores 'medium' for both liberalism and conservatism; Denmark scores strongly for socialism, but it also scores 'medium' for liberalism; Italy and France score strongly for conservatism, but they also have high 'medium' scores for liberalism; and Switzerland scores strongly for liberalism, but it also scores 'medium' for socialism.

So the welfare regimes correlate with income inequality in different countries thus:



We can thus conclude that there is a correlation between high income inequality and more liberal welfare regimes, mid-range income inequality and more conservative welfare regimes, and low income inequality and more socialist, or universalistic, welfare regimes.

Correlations between welfare regime types and two social ills

Wilkinson and Pickett have found correlations between income inequality and a variety of social ills. I have chosen to test prison populations and levels of teenage births for correlations with welfare regime type. These two social indicators are in very different fields, and they are not as likely to be affected by the healthcare characteristics of welfare regime types as are health-related social indicators, which means that any correlations discovered are likely to be significant.

Table 5 reveals little connection between income inequality and the number of births per 1,000 women aged 15 to 19: an indicator which Wilkinson and Pickett suggests correlates with income inequality and as representing social ills in relation to the prospects for both the mothers and their children. ¹¹ (The USA is clearly an outlier, and so has been removed from the two lists)

Table 5 and figure 9

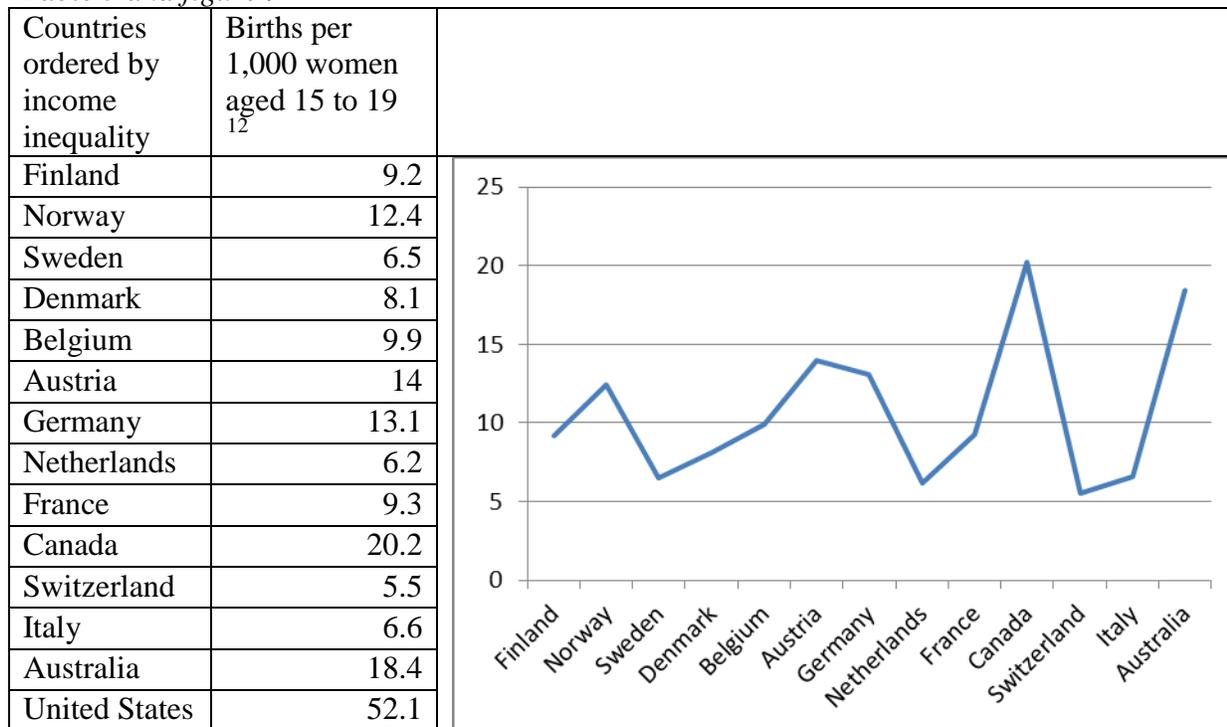


Table 6 and figure 10

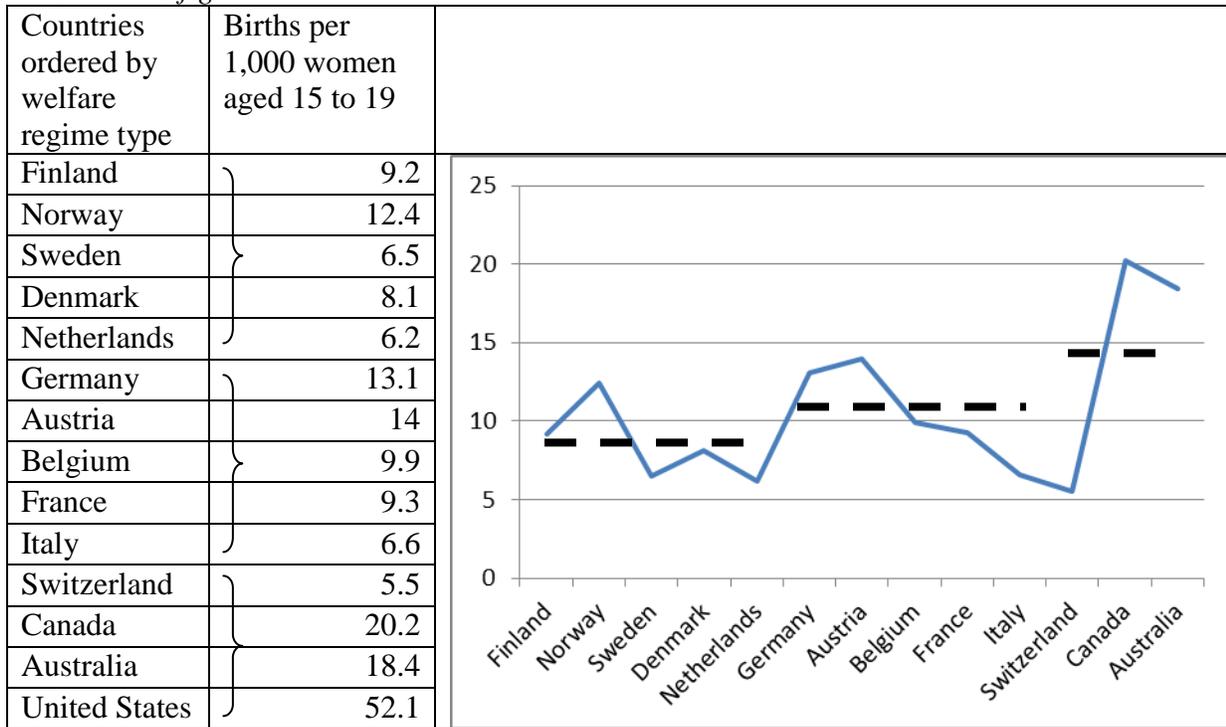


Table 6 lists countries in relation to welfare regime type. Within each type the countries are not ordered. The dashed lines on the graph represent the averages for the three groups, and we can see a clear correlation. (For the liberal welfare regime, Switzerland would appear to be an outlier, but I have left it in as I have already removed the outlying USA).

It would therefore appear that welfare regime type offers a correlation where income inequality does not.

We find a similar pattern with prison populations:

Table 7 and figure 11

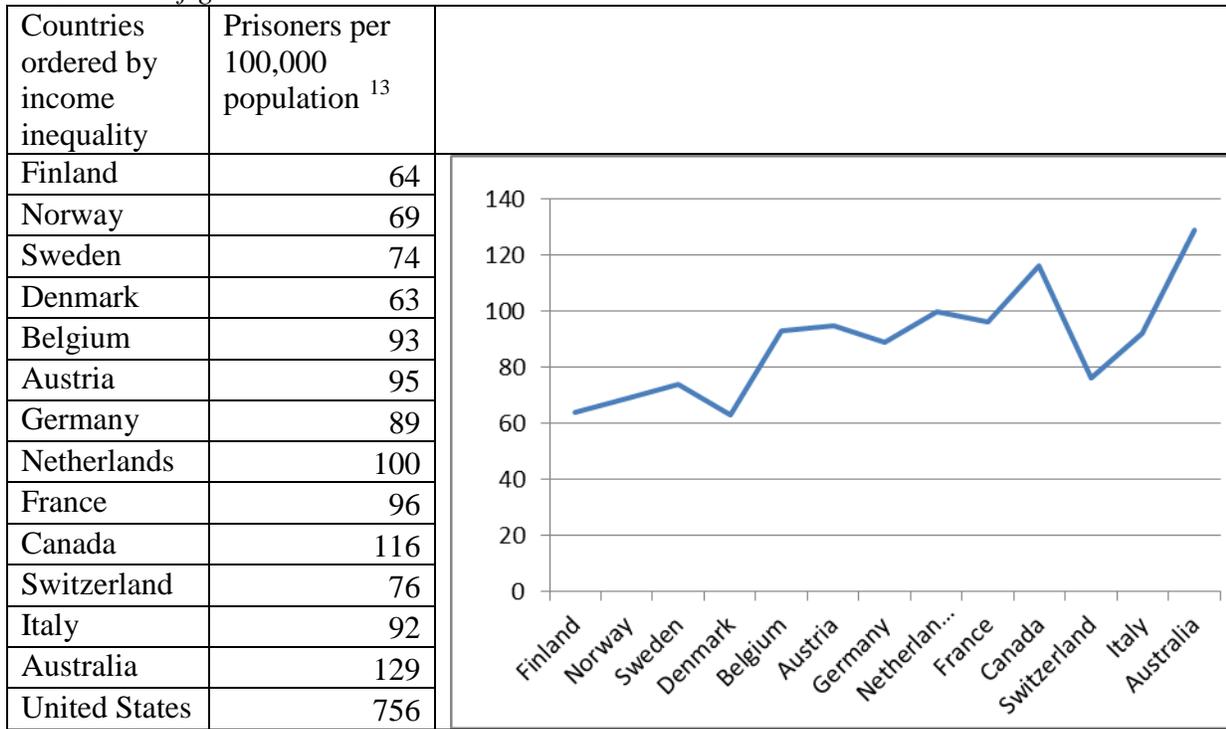
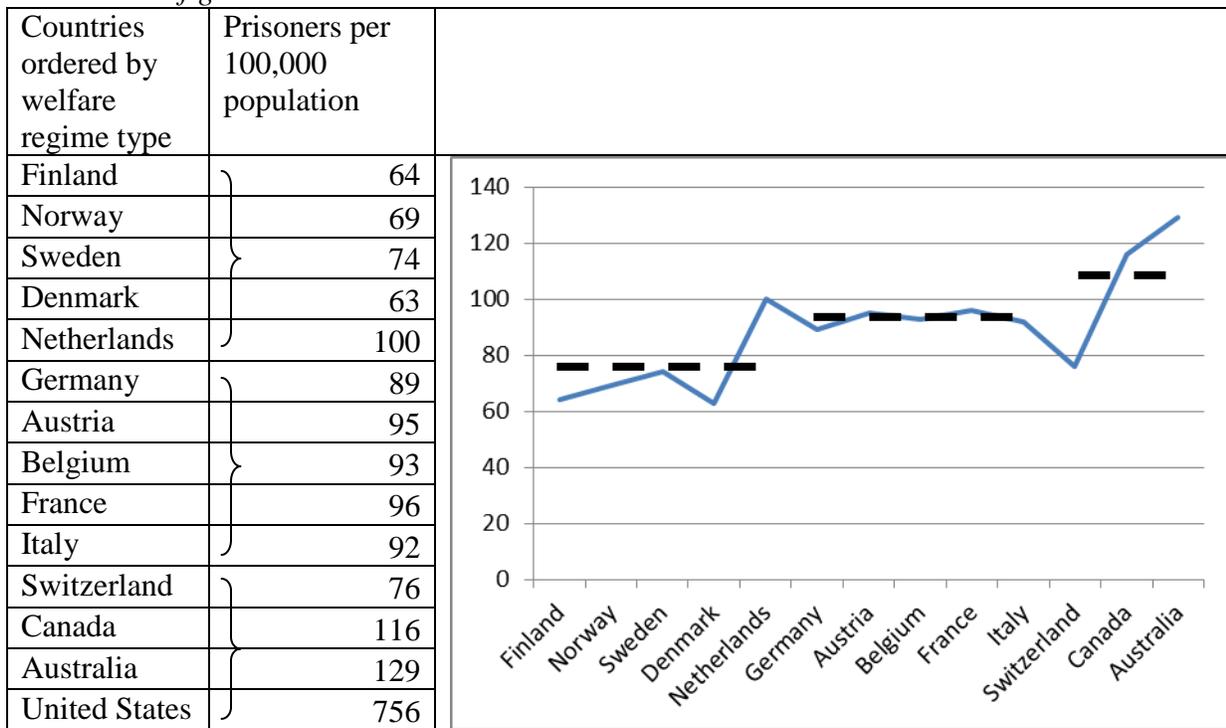


Table 8 and figure 12



In this instance we observe a correlation between income inequality and prison population, and a correlation between welfare regime type and prison population. Again, the USA is clearly an outlier. Switzerland is too, and the latter correlation would have been even clearer had I omitted it.

We have discovered the following correlations:

- Between welfare regime type and income inequality
- Between welfare regime type and prison population
- Between welfare regime type and number of births per 1,000 women aged 15 to 19

Wilkinson and Pickett discover correlations between income inequality and prison population¹⁴ and between income inequality and number of births per 1,000 women aged 15 to 19.¹⁵ We have found evidence for the former but not for the latter. One of the reasons for not replicating their results in this respect is that I have employed a shorter list of countries. Adding back in countries such as Japan and the USA, which have extremely low and extremely high prison populations respectively, would give a clearer correlation between prison population and income inequality, particularly as Wilkinson and Pickett employ a log scale on the prison population axis, whereas I employ a linear scale for the middle range countries. What this suggests is that at the extremes there is a correlation between income inequality and prison population, whereas in the middle range it is more difficult to identify such a correlation.

My conclusion is that prison population and births per 1,000 women aged between 15 and 19 correlate with welfare regime type at least as well as they do with income inequality, and possibly better.

This in turn suggests that welfare regime type has at least as good a claim to cause differences in numbers of teenage births and in prison populations as does income inequality. And this suggests that welfare regime type might be at least one root cause of net income inequality.

I suspect that underlying the different income inequality outcomes which Esping-Andersen has discovered is the extent to which the different welfare state regimes apply different rules to different groups within a society. Here the detail matters. The Department for Work and Pensions Tax Benefit Model Tables¹⁶ show that many households on low incomes experience marginal deduction rates of 95%, i.e., for every additional pound they earn they keep only 5p: whereas those who earn most keep 59p of every extra pound earned. Net income inequality is almost *bound* to be the result unless earned incomes are already substantially equal. Thus in a liberal welfare regime which relies heavily on means-testing, the structure results in increasing income inequality. It is such detailed consideration of the *structures* of welfare provision (for instance, of the different types of secondary school, their different admissions systems, and those systems' privileging of middle class behaviour) that might reveal the complex causal pathways which result in a correlation between income inequality and other social indicators.

Geert Hofstede's categorisation of national cultures

Of equal interest to Esping-Andersen's welfare state categorisation is Geert Hofstede's categorisation of national cultures: the result of research amongst IBM employees in sixty-six countries.

Hofstede ranks countries along four spectra: from individuals' tendency to assertiveness to their tendency to more modest behaviour; from individualism to collectivism; from behaviour designed to avoid ambiguity and uncertainty to a more welcoming attitude to uncertainty and ambiguity; and from substantial differences in power between different people in society to lower differences in power, in relation to which each country is ascribed a Power Difference Index (PDI) constructed on the basis of answers to such questions as: How often is there a problem in expressing disagreement with managers? ¹⁷

As well as locating each country along each of the four spectra, he also seeks correlations with other variables, and, in the case of the PDI, with income inequality. Hofstede's research took place about forty years ago, and the data sources he uses for income equality are equally out of date, so we must question the current relevance of his results, but the fact that he found a positive correlation between the PDI and income inequality is surely of interest. The most recent data source he used was an OECD one, which interestingly showed less relationship between PDI and before-tax income inequality than between PDI and after-tax income inequality. In table 9, countries are ranked in order of PDI, the second column shows recent net income inequality figures, and the final four columns show figures drawn from one of the data sources which Hofstede employed:

Table 9

Country	Power Difference Index (PDI)	Ratio of average net income, top 10% to bottom 10% ¹⁸	Ratio of average gross income, top 10% to bottom 10% ¹⁹	Ratio of average gross income, top 20% to bottom 20% ²⁰	Ratio of average net income, top 10% to bottom 10% ²¹	Ratio of average net income, top 20% to bottom 20% ²²
France	68	9.1	20.7	10.9	21.7	10.9
Belgium	65	8.2				
Japan	54	4.5	9.9	5.6	9.1	5.2
Italy	50	11.6			18.2	9.1
United States	40	15.9	27.7	11.8	17.7	9.5
Canada	39	9.4	22.6	10.1	16.7	8.2
Netherlands	38	9.2	13.5	7.8	10.7	6.6
Germany	35	6.9	12.4	7.9	10.8	7.1
Australia	36	12.5	11.3	5.9	11.3	5.9
UK	35		11.8	7.5	9.4	6.1
Switzerland	34	9.0				
Finland	33	5.6				
Norway	31	6.1	14.4	8.3	9.7	5.9
Sweden	31	6.2	12.2	6.8	9.7	5.6
Denmark	18	8.1				
Correlation		0.07	0.25	0.3	0.66	0.62
Correlation without Japan		0.2	0.45	0.58	0.85	0.85

* Hofstede calculated Germany's PDI before reunification, and the figures quoted by Bégué are also from before reunification. All of these figures apply to the Federal Republic only

The correlation coefficient measures the level of correlation between sets of data, and in this case the level of correlation between the income inequality statistics and the PDI. The nearer to 1, the greater the correlation. Significant correlation only appears with the historic data and with net income.

The final row shows correlation coefficients once Japan is removed from the list. There is now substantial correlation for the historic data.

What we don't know, of course, is what the Power Difference Indices would be today, and it would be a useful piece of research to rerun Hofstede's project. I suspect that their values would be rather different from their values forty years ago. Until that piece of work has been done we shall need to keep an open mind as to whether today's PDIs would correlate with today's income inequality ratios.

As Hofstede writes: 'We can take the data as proof that income inequality is larger in high PDI than in low PDI countries',²³ and that taxation exacerbates differences in inequality – though again we shall need to keep an open mind as to whether that is the situation today. If it is true, then it will still be true that 'in higher PDI countries the tax system, rather than reducing the greater income inequalities, in fact increases them'.²⁴ 'It seems that the level of societies' inequality in power and inequality in wealth²⁵ go hand in hand. The greater the power inequality, the greater the wealth inequality, and vice versa. Larger or smaller inequality in wealth is one of the elements in the causal chain that helps to explain the power distance syndrome'.²⁶ His causality diagram²⁷ suggests that greater social mobility causes wealth inequality to fall, and that this lower wealth inequality causes political power to be based on representation; and this, after a few more causal steps, causes a lower power difference. At the very beginning of the diagram we find colder northern climates causing earlier urban living, and thus technological development and social mobility, whereas warmer southern European climates meant continuing reliance on agriculture, less industrialisation, and a generally less equal society. '43 percent of the variance in PDI can be predicted from the geographical latitude of the country's capital alone ... 51 percent can be predicted from a combination of latitude and population size'.²⁸ Is the UK's ambiguous position perhaps a result of its northern latitude and the Gulf Stream's creation of a warmer climate uncharacteristic of that latitude?²⁹

Causal links ?

We haven't shown causal links between welfare regime type and income inequality or between national culture and income inequality.

The welfare regime of a country determines a number of ways in which incomes are both gained and redistributed. For instance: If benefits are means-tested then a substantial increase in earned income can result in little additional net income because benefits are withdrawn as earned income rises. This doesn't happen with universal benefits. And if non-means-tested contingency benefits (for sickness, unemployment, and disability) replace a substantial proportion of someone's earned income, then incomes across society will be more equal than if they weren't. We can therefore see that the character of a welfare regime is likely to be causal in relation to the level of income inequality in a society. What isn't obvious is how income inequality could cause the character of the welfare regime.

With the correlation which Hofstede discovered between income inequality and perceived power differences in national culture, it isn't as clear whether income inequality contributes to power difference or power difference to income inequality.

Again similarly: it isn't clear whether income inequality is responsible for the number of prisoners or for the number of births to teenage mothers or whether there is some third factor

underlying the correlation between these variables. We now have at least two candidates for such a third factor: national culture, and welfare state structure. We are less certain than ever that we know what's going on, and more certain than ever that because the correlations are stacking up we can be pretty sure that there are some strong connections between the variables.

This is a hunch: that what we're experiencing is a highly complex situation in which interlocking circular causal processes, with significant feedback mechanisms, are driving us towards deeper inequalities; and that those countries already experiencing the more extreme inequalities are going to find it the hardest to arrest the process – and arrest it we must, for otherwise the combined social processes might become a vortex of accelerating inequalities which, try as we might, we cannot escape.

As we have seen, a Citizen's Income avoids any need to choose between Wilkinson and Pickett's position and the possibility that deeper social inequalities cause both income inequality and other social ills. If Wilkinson and Pickett are right then we need to reduce income inequality if we are going to reduce other social ills. If the picture is a more complicated one then reducing income inequality will slow at least some of the factors causing a variety of inequalities and might be able to control the feedback mechanisms and blunt the effects of national culture and of welfare state structure. The fact that the UK possesses a somewhat ambiguous welfare state suggests that we're not talking about massive change here.

But as we have also seen, a Citizen's Income would have social effects as well as income effects. It would treat everyone the same – something which a means-tested system doesn't do – and it would therefore begin to repair a deeper social inequality which might be the root of income inequality. So if we're not sure whether income inequality or some deeper social inequality is the cause of our social ills, we should look to a Citizen's Income, and not to means-testing, for the repair which our society needs.

¹ Richard Wilkinson and Kate Pickett, *The Spirit Level: Why More Equal Societies Almost Always Do Better*, Allen Lane, London, 2009

² Daniel Dorling, *Injustice: Why Social Inequality Persists*, Policy Press, Bristol, 2010, pp.13-32

³ David Hume, *An Enquiry concerning Human Understanding*, new edition, Oxford University Press, Oxford, 2008, ch.1, § iv

⁴ David Owens, *Causes and Coincidences*, Cambridge University Press, Cambridge, 1992; Ernest Sosa and Michael Tooleys (eds), *Causality*, Cambridge University Press, Cambridge, 1993

⁵ Richard Wilkinson and Kate Pickett, *The Spirit Level: Why More Equal Societies Almost Always Do Better*, Allen Lane / Penguin Books, London, 2009, p.62

⁶ Immanuel Kant, *Critique of Pure Reason*, tr. Norman Kemp Smith, Macmillan, London and Basingstoke, 1929, pp.124-5

⁷ Karl Popper, *The Logic of Scientific Discovery*, Routledge, London, 2002

⁸ Thomas Kuhn, *The Structure of Scientific Revolutions*, University of Chicago Press, Chicago, 1970

⁹ Gøsta Esping-Andersen, *The Three Worlds of Welfare Capitalism*, Polity Press, Cambridge, 1990, pp.69-77

¹⁰ United Nations, *Human Development Report, 2009*, United Nations, New York, 2009, p.195, table M

¹¹ Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Equality is Better for Everyone*, 2nd edition, Penguin, London, 2010, pp.119-128

¹² Richard Wilkinson and Kate Pickett, *The Spirit Level: Why More Equal Societies Almost Always Do Better*, Allen Lane / Penguin Books, London, 2009, p.122

¹³ Roy Walmsley, *World Prison Population List*, 8th edn, King's College London, International Centre for Prison Studies, London, 2009

¹⁴ Richard Wilkinson and Kate Pickett, *The Spirit Level: Why Equality is Better for Everyone*, 2nd edition, Penguin, London, 2010, pp.148-9

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- ¹⁵ Richard Wilkinson and Kate Pickett, *The Spirit Level: Why More Equal Societies Almost Always Do Better*, Allen Lane / Penguin Books, London, 2009, p.122
- ¹⁶ www.dwp.gov.uk/asd/tbmt.asp
- ¹⁷ Geert Hofstede, *Culture and Organizations: Software of the Mind: intercultural Co-operation and its Importance for Survival*, McGraw-Hill, New York, 1997, p.27
- ¹⁸ United Nations *Human Development Report, 2009*, United Nations, New York, 2009, p.195, table M
- ¹⁹ J. Bégué, 'Remarques sur une étude de l'OCDE concernant le repartition des revenus dans divers pays', *Économie et Statistiques*, vol. 84, 1976, pp.97-104; table quoted in Geert Hofstede, *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, 1980, p.148
- ²⁰ J. Bégué, 'Remarques sur une étude de l'OCDE concernant le repartition des revenus dans divers pays', *Économie et Statistiques*, vol. 84, 1976, pp.97-104; table quoted in Geert Hofstede, *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, 1980, p.148
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- ²² J. Bégué, 'Remarques sur une étude de l'OCDE concernant le repartition des revenus dans divers pays', *Économie et Statistiques*, vol. 84, 1976, pp.97-104; table quoted in Geert Hofstede, *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, 1980, p.148
- ²³ Geert Hofstede, *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, 1980, p.147
- ²⁴ Geert Hofstede, *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, 1980, p.149
- ²⁵ Hofstede unfortunately confuses wealth and income here and elsewhere
- ²⁶ Geert Hofstede, *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, 1980, p.125
- ²⁷ Geert Hofstede, *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, 1980, p.124
- ²⁸ Geert Hofstede, *Culture's Consequences: International Differences in Work-Related Values*, Sage, Beverly Hills, 1980, p.122
- ²⁹ See Béla Janky, 'Social solidarity and preferences on welfare institutions across Europe', pp.209-49 in Marion Ellison (ed.), *Reinventing Social Solidarity Across Europe*, Policy Press, Bristol, 2012, on his Redistributive Attitude Index. He constructs an index showing different populations' preferences for increased government expenditure. As similar ranking emerges, but with the UK midrange and the Netherlands wanting a particularly government involvement.