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PAPER

**Modernisation theory, income evaluation,
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Wil Arts, Piet Hermkens & Peter van Wijck

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Modernisation theory, income evaluation, and the transition in Eastern Europe

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Keywords: comparative sociology, modernisation, income evaluation, transition

Abstract

This paper investigates perceptions and evaluations of the distribution of income in Eastern Europe before (1987) and after (1992) the 'velvet revolutions' of 1989. These are compared to perceptions and evaluations in the West over the same period. Following suggestions in the recent literature that the transformation process in Eastern Europe can best be interpreted as a process of ongoing modernisation, modernisation theory is adopted as the theoretical framework. Hypotheses derived from modernisation theory are tested using data stemming from the International Social Survey Programme.

1. Introduction

From World War II till the end of the 1960s, modernisation theory was the pre-eminent theory of long-term societal change in Western sociology. Shortly after that time, however, this theory came under severe attack from many critics, especially neo-marxists. These critics pointed, particularly, to the empirical anomalies that this theory had to contend with. For example, instead of an assumed historical process of non-revolutionary, incremental change the late 60s and early 70s showed revolutions and wars, instead of democratisation the spreading of dictatorship, instead of secularisation the emergence of new religious movements (Alexander, 1994: 175). Another point of criticism, this time by non-marxists, pertained to the teleological, functionalist and historicist character of modernisation theory. Especially the central idea of this theory, i.e. that the developmental logic of industrialism impels societies on a particular course

of change directed towards a particular end, has been criticised. Although in the 1970s modernisation theory became increasingly more sophisticated as it geared up to meet its critics, alternative explanations took over (cf. Alexander, 1994: 176)¹.

In recent years, however, modernisation theory has been making a remarkable come-back. The reason for this revival is that a number of social scientists have come to the conclusion that recent history and especially the transformation process of the post-communist countries in Eastern Europe could be best interpreted as a process of ongoing modernisation (cf. Burawoy, 1992). Some of them even proclaim that modernisation theory 'has recorded the long-term developments within the Eastern European area (...) long before they were empirically verifiable' (Müller, 1992: 111). For, in the 50s and 60s modernisation theorists predicted a convergence of East and West determined by the logic of industrialism. One of their theses was that convergence would only become visible at the institutional level later on, although they already saw signs of convergence then. They were of the opinion that, in spite of severe ideological conflicts, a very broad consensus between East and West was discernible at the deeper level of fundamental values.

Others are also willing to revalue modernisation theory, because its predictive powers appear to be superior to its alternatives, but are still sceptical as far as its deterministic and mechanistic nature is concerned. Although modernisation theory suggests a linear time chart depicting the modernisation process in Eastern Europe, the collapse of the social structure in Eastern Europe will, in their interpretation, cause an anomic rift in the linear development (cf. Srubar, 1994: 199/200, 217).

Srubar (1994: 199) is of the opinion that to clarify the changes during the transformation process without sacrificing the insights from modernisation theory, we have to turn our attention to the 'meaning level' of the transformation process. Sztompka (1993: 86) too has argued that

¹ The following contributions stand out as being of paradigmatic importance for the most elaborated and sophisticated version of this theory: First of all the work of C. Kerr and his associates (Kerr, 1969, 1983; Kerr et al., 1960; Dunlop et al., 1975), and furthermore the later works by structural functionalists such as W. E. Moore (1960, 1967, 1979), and T. Parsons (1960, 1966, 1967, 1971). Even severe critics (Gallie, 1991, Erikson & Goldthorpe, 1993) concede that up to this moment modernisation theory is the most developed, systematically formulated and influential theory of long-term societal change and especially industrial society.

it is necessary to bring people back into the analysis of the transformation process. Instead of only turning our attention to 'hard' institutional or organisational facts, we should pay much more attention to the 'soft' factors of habits, mentalities, cultural routines. In this paper we will heed these suggestions. We will focus on subjective aspects of changes in Eastern Europe, and especially on the perceptions and evaluations of the distribution of income. For the sake of interpretation we will compare our findings for two industrialised, post-communist countries (Hungary and Poland) with findings drawn from four industrialised, liberal countries in the West (Australia, Great Britain, USA, West-Germany). This paper is an attempt to acquire an understanding of what notions, more specifically perceptions and evaluations, people formed of the distribution of income in Eastern Europe before (1987) and after (1992) the 'velvet revolutions' of 1989, and how these compare to perceptions and evaluations in the West during the same period. We pay attention to the question of whether people's perceptions and evaluations of the distribution of income in Eastern Europe at a certain point in time differed systematically from those in the West and whether we can observe a process of convergence between countries in the East and in the West over time.

The plan of the paper is as follows. First of all, we sketch in section 2 the ideas from modernisation theory that are relevant for answering our questions. Next, in section 3 hypotheses are derived. Then, in section 4, the central concepts and hypotheses are operationalised, and the data set stemming from the International Social Survey Programme is elucidated. In section 5, the hypotheses are tested empirically. Section 6 presents an elaboration of the analysis. Finally, in section 7, we present our conclusions.

2. Modernisation, social stratification and inequality

In order to describe and interpret the transition from communist to post-communist societies from the point of view of modernisation theory, we first of all would have to look for the imperatives intrinsic in the industrialization process. We have, in other words, to look for the so-called *pure* logic of industrialism. Like all ideal-types, this logic offers an analytic and heuristic device to describe *actual* large scale societal changes. According to Kerr et al. (1960: 33), it contains answers to pivotal questions such as: 'What are the inherent tendencies and implications of industrialisation for the work place and the larger community? What would be the principal features of industrialism, i.e. the fully industrialised society?'

Intrinsic in the industrialisation process is, according to modernisation theory, an irreversible commitment to technical and economic rationality. Industrialism imposes technical and economic rationality not only in the work place but also on all other spheres of society in a gradual but unrelenting and persuasive way. Thus it reinforces features which are functionally consistent with rationality and undermines those which are not. As a result all industrial societies will be brought on to convergent developmental paths. The place a particular society starts from and the route it follows are likely to affect its features for many years, but all industrialising societies will respond to the inherent logic of industrialism itself. Consequently, any differences between industrialising societies should eventually disappear as economic development continues.

The logic of industrialism holds that all mature industrialised societies are confronted with identical functional prerequisites and have the same fundamental societal division of labour in common. This division of labour manifests itself especially in the occupational structure. The various occupations do not only differ in the tasks that have to be performed, but are also to a greater or lesser extent of importance for the survival and balanced functioning of industrial society. Furthermore, the number of people who are competent to pursue each of these occupations vary. To get the right people in the right place and to ensure that the thus optimally allocated people also fulfil their tasks properly, social rewards such as income and prestige have to be distributed unequally. In this way very similar occupational income and prestige hierarchies come into existence in all modern industrial societies.

These occupational hierarchies are not only quite similar all over the industrial world, but are also morally embedded in the value system of industrial societies. Between and within industrial societies there is a high degree of consensus discernible pertaining to the functional importance of occupations and the legitimacy of an unequal distribution of income and prestige over those occupations. More specifically, in all developed industrial societies we see a near identical rank order of occupational classes with respect to socioeconomic status, with professionals, managers and owners of large businesses at one extreme and agricultural and unskilled workers on the other (Ganzeboom et al., 1991: 289). What we can also notice is that, after some initial state, as industrial societies 'mature', income inequalities tend to diminish steadily (Kuznets, 1955,

1963)². This trend too will be supported by the moral sentiments of public opinion embedded in an egalitarian ideology.

In modern industrial societies moral conceptions are primarily universalistic in nature. The legitimacy of claims to income is judged by impersonal standards, and especially standards of individual achievement. In those societies we can not only observe that the allocation of occupational roles and the differentiated distribution of income is increasingly based on achievement and less and less on the base of ascription, but also that egalitarian ideas have become more important. At the level of values, the modern societal community has become basically egalitarian in the sense that inequalities must be positively justified in terms of their significance for the society concerned (Arts & Van der Veen, 1992: 149).

The idea behind this argument is that it is the force of industrial circumstances, the inherent logic of industrialism, that persuades people to adhere to particular opinions, ideas and values. Because this force is generally the same for everybody and similar in strength, consensus originates from it. Inkeles (1960: 2) remarks that the underlying theory is very simple. He argues that it is assumed that people have experiences, develop attitudes, and form values in response to the forces or pressures which their environment creates. The theory holds, he goes on, that, within broad limits, the same situational pressures, the same framework for living, will be experienced as similar and will generate the same or similar response by people from different countries. The hypothesis now goes, he concludes, as follows: In so far as industrialisation, urbanisation and the development of large-scale bureaucratic structures and their usual accompaniments create a standard environment with standard, institutional pressures for particular groups, to that degree should they produce relatively standard patterns of experience, attitude, and value.

² The last decade(s), however, we have seen a reversal of this trend in several if not all industrialised countries. This again is an anomalous finding as far as modernisation theory is concerned.

3. Cognitive and evaluative maps: Some hypotheses

To gain a reliable picture of the transformation process in Eastern Europe, Srubar (1994: 208) argued that it is important to visualise people's perceptions and evaluations of what is happening in everyday life. One key element, he mentions, is that of self-definition. This element pertains to the question of how individuals and social groups locate their own positions during the transformation process and the attitudes they adopt to it. This suggests that we have to investigate people's changing position in the income hierarchy as they perceive and evaluate it. Kluegel and Smith (1981: 50), however, remark that the importance of beliefs and attitudes concerning the respondent's own position in society has been over-emphasised, to the relative neglect of beliefs about properties of society in general. If we take their remark seriously, we should rather emphasise people's *definition of the situation* than their *self-definition*. Therefore, we will focus on the question of how individuals define the positions of generalised others, as measured by occupational categories, during the transformation process and the attitudes they adopt to this. By following this approach, we give attention to subjective reactions to societal inequality and stratification. More particularly, we want to construct both *cognitive maps*, i.e. we want to map out the perceptions people have of the inequalities of the occupational stratification system in their society, and *evaluative maps*, i.e. we want to portray people's judgments of the justice or fairness of occupational inequalities in those societies (cf. Bell & Robinson, 1980: 321).

Modernisation theory suggests that industrial societies that have reached a stage of 'maturity', i.e. if they have completed the transition to an industrial society, will display a near identical hierarchy of average occupational incomes and a quite similar degree of occupational income inequality. Furthermore, the members of these societies will come to perceive and evaluate this hierarchy and this degree of occupational income inequality in a quite similar way.

Besides the major pressures that the industrialising process has brought to bear on people, modernisation theory maintains that there are also some minor factors at work that can 'disturb' the causal chain between the 'logic of industrialism' and the perceptions and evaluations of 'the average occupational incomes' and 'the degree of income inequality'. As we have mentioned before, those factors amount to the differences between industrial societies in starting-points and the route they followed. Taking account of these factors, we arrive at the following hypothesis.

I: If 'mature' industrial societies differ in starting-points and/or the modernising routes they followed, then they will show larger differences in the perceived and preferred hierarchy of the occupational incomes and the perceived and preferred degree of occupational income inequality, than societies that do not differ in starting-points and/or modernisation routes.

Modernisation theory, however, assumes that the influence of those disturbing factors will decrease in the course of time. Perceptions and preferences in countries that differ in starting-points and/or the modernising routes would tend to converge slowly. If, however, a country begins to follow the same route as other countries, an acceleration of this convergence process is expected. This yields the second hypothesis.

II: If a society comes to follow the same modernising route as other societies, then there will be a convergence between this society and the other societies with regard to the perceived and evaluated hierarchy of occupational incomes and the degree of income inequality.

There is, however, a proviso to this hypothesis. The secular trend of modernisation can be temporarily interrupted by economic crises. These crises will not only lead to anomie, but also almost inevitably to social declassification. Generally, economic crises result in a sudden and large-scale disruption of the distribution of income in a society. This in its turn, has the effect of unbalancing the existing system of social stratification, i.e. the hierarchy of occupations (Lockwood, 1992: 117). In a situation of economic anomie the uncertainty about the actual and just average incomes of occupational classes will increase. Consequently, perceptions and evaluations will diverge. This idea is expressed in the third hypothesis.

III: If mature industrial societies fall into an economic crisis and start to follow a new route to industrialism, then the members of those societies will experience a situation of economic anomie and they will temporarily perceive and evaluate the hierarchy of average occupational incomes and the degree of occupational income inequality in an relatively dissimilar way.

4. Data set and operationalisation

4.1 Data set

We tested the aforementioned hypotheses by using data drawn from the 'social inequality' module of two international surveys carried out in 1987 and 1992 by the International Social Survey Programme (ISSP). The ISSP is an international consortium of survey organisations, mostly academic, that collect precisely comparable cross-national data on social attitudes and values. Each year the ISSP creates a module that is then fielded as an addition to each country's regular annual survey using exactly the same question wording, answer categories, and sequencing in all countries. In only six countries (Australia, Great Britain, Hungary, Poland, the United States, and West Germany) involved in this project were the relevant 'social inequality' questions asked in both 1987 and 1992. Each national survey was a large representative (random or clustered) sample of adults. The observational method concerned was a combination of leave-behind self-completion questionnaires and face-to-face standardised interviews. Australia's survey was conducted entirely by mail and the Hungarian one was conducted entirely through face-to-face interviews.

4.2 Operationalisation

Concepts

To construct cognitive and evaluative maps of the inequalities of the occupational stratification systems in the above mentioned six modernising countries we will apply three core concepts: perceptions, preferences and judgments.

Perceptions

In the questionnaires of 1987 and 1992 the respondents were asked to estimate the gross annual incomes of several occupations. Seven of these occupations are incorporated in both the 1987 and the 1992 questionnaire. These occupations are: 'chairman of a large factory', 'doctor/physician', 'farm worker', 'minister/secretary of state', 'owner of a small shop', 'skilled factory worker', and 'unskilled factory worker'. Let O_i^a be the income level that is perceived to be *actually* earned by somebody who is pursuing occupation i , then $\alpha_i = O_i^a / \sum O_i^a$ can be used as an indicator of the position of job i in the income hierarchy. Note that O_i^a is expressed in terms of the currency of a particular country, whereas α_i is a dimensionless number, thus facilitating international comparison. For the sake of convenience, α_i will be called i 's *perceived income share*.

Respondents' answers to the question of how much they think people pursuing a particular occupation earn can also be used to obtain an indicator of *perceived inequality*. For that purpose we use $\alpha = \alpha_{\text{top}} / \alpha_{\text{bottom}}$, where α_{top} is the income level that is thought to be earned by people pursuing the highest rewarded occupation, and α_{bottom} is the income level that is thought to be earned by people pursuing the lowest rewarded occupation.

Preferences

The respondents were not merely asked how much money they think people pursuing a particular occupation actually earn, but also how much people *should* earn. Let O_i^s be the income level that people think that pursuers of occupation i ought to earn, then $\beta_i = O_i^s / \sum O_i^s$ can be used as an indicator of the position that occupation i should have in the income hierarchy. For the sake of convenience, β_i will be called i 's *preferred income share*. As an indicator of *preferred inequality* we use $\beta = \beta_{\text{top}} / \beta_{\text{bottom}}$, where β_{top} and β_{bottom} are defined analogously to α_{top} and α_{bottom} .

Judgments

The respondents were not explicitly asked to assess the degree to which people pursuing different occupations are over or under rewarded. Their judgments, however, can be inferred from the answers given to the questions above. We take $R_i = \alpha_i / \beta_i$ as an indicator of adjudged over or under reward. The higher (lower) R_i the more the people pursuing occupation i are deemed to be over (under) rewarded. Furthermore, the respondents were not explicitly asked to what degree they consider a distribution of income (in)equitable. Assuming this judgment will be based on the deviation of the perceived distribution of income from the distribution as it should be, we can use the so-called Leontief equity index as an indicator for this judgement (cf. Van Wijk, 1994a, 1994b). This index is defined as $E^L = \min(\alpha_i / \beta_i)$. Essentially, this index indicates to what degree the most under rewarded category is under rewarded. A higher value of E^L indicates a more equitable distribution of income.

Hypotheses

The *first hypothesis* predicts that industrial societies which have both a particular starting-point and a specific modernising route in common will exhibit more similar perceptions and evaluations than industrial societies which have only either a starting-point or a modernising route in common and still more than societies do which have neither of the two in common.

Australia and the United States have a starting-point in common, they are both pioneering and immigration countries, and the same applies for Hungary, Great Britain, Poland and West-Germany which share a feudal past. Hungary and Poland followed a communist route to an industrial society, while the other countries followed a capitalist one. From hypothesis I it follows that two by two Hungary and Poland, Great Britain and West-Germany, and Australia and the United States will show for both years quite similar results. The largest differences to be expected will be those between the couple Australia and the United States on the one hand, and Hungary and Poland as a couple on the other.

From this hypothesis the prediction can be derived that the perceived inequality of occupational incomes in Great Britain and West-Germany will be situated between the perceived inequality in Hungary and Poland on the one hand and Australia and the USA on the other. If we assume that in the East the egalitarian ideology is stronger than in the West and the meritocratic ideology is weaker, then this prediction can be operationalised as follows:

$$\text{Ia: } \alpha^{\text{hun}}, \alpha^{\text{pol}} < \alpha^{\text{gb}}, \alpha^{\text{wg}} < \alpha^{\text{aus}}, \alpha^{\text{usa}}$$

Furthermore, a second prediction can be derived that the preferred inequality in Great Britain and West-Germany is situated between the preferred inequality in Hungary and Poland on the one hand and Australia and the USA on the other. This prediction, using the same assumption as above, can be operationalised as follows:

$$\text{Ib: } \beta^{\text{hun}}, \beta^{\text{pol}} < \beta^{\text{gb}}, \beta^{\text{wg}} < \beta^{\text{aus}}, \beta^{\text{usa}}$$

The *second hypothesis* can be tested by looking at changes in perceptions and evaluations over the course of time. In the time span 1987-1992 the industrialisation process continues in all the aforementioned countries, and from 1989 onwards Hungary and Poland have come to follow the same capitalist route as the countries from the West. It follows from this hypothesis that there will be a convergence in the perceived inequality between Hungary and Poland on the one hand and the other countries on the other in the period 1987-1992. This prediction can be operationalised as follows:

IIa: For Hungary and Poland $\alpha_{1992}/\alpha_{1987}$ will be larger than for the other countries.

Since preferences tend to adjust just as do perceptions to changing circumstances, but at a slower pace, a similar prediction applies to preferred inequality (Arts et al., 1995a: 137):

IIb: For Hungary and Poland $\beta_{1992}/\beta_{1987}$ will be larger than for the other countries.

Because societal conditions in contemporary Eastern Europe are subject to fundamental changes, and since preferences tend to adjust, with some time-lag, to changes in perceptions, one would expect diverging preferences and perceptions in a period of transition, thus yielding an increase in experienced inequity. This prediction can be operationalised as follows:

IIc: For Hungary and Poland applies: $E^L_{1992} < E^L_{1987}$.

The *third hypothesis* does not so much concern changing similarities and differences between countries over time, but much those more changes within countries. Because Hungary and Poland came to resemble an ideal-typical situation of anomie in 1992, we may expect that their inhabitants have come to perceive and evaluate the hierarchy of, and differences between, average occupational incomes and the degree of occupational income inequality in a increasingly dissimilar way (Arts et al., 1995b). This hypothesis leads to the prediction that in Hungary and Poland in 1992 there will be less agreement on perceived and preferred inequality, and, consequently, on equity judgments, than in 1987. The extent of disagreement can be measured by the standard deviations of α , β , and E^L . This prediction leads to the following more specific predictions:

IIIa: For Hungary and Poland applies: $\text{std}(\alpha)_{1992} > \text{std}(\alpha)_{1987}$.

IIIb: For Hungary and Poland applies: $\text{std}(\beta)_{1992} > \text{std}(\beta)_{1987}$.

IIIc: For Hungary and Poland applies: $\text{std}(E^L)_{1992} > \text{std}(E^L)_{1987}$.

5. Analysis

The *first hypothesis* predicts that perceived (preferred) inequality in Great Britain and West-Germany is situated between the perceived (preferred) inequality in Hungary and Poland on the

one hand and Australia and the USA on the other. Figure 1 shows the degree of perceived inequality (α) in the countries concerned.

As predicted, both the couples Great Britain/West Germany and Hungary/Poland had a lot in common in 1987. No statistically significant differences within those couples were found. This cannot be said for the couple Australia/USA. The greatest contrasts between the countries concerned are between those two, while they were actually expected to have a lot in common. For 1992 even worse results are found. Still the greatest contrasts is that between Australia and the USA, but now Hungary pairs off with West Germany and Poland with Great Britain.

Figure 2 shows the degree of preferred inequality (β) in the countries concerned. The data for 1987 yield some support for hypothesis I, since Great Britain/West Germany, and Hungary/Poland are quite similar. This, however, is no longer the case in 1992. Both Ia and Ib have been falsified, and therefore hypothesis I has been refuted.

Figure 1. Perceived inequality

Figure 2. Preferred Inequality

The *second hypothesis* predicts that there will be a convergence in perceived (preferred) inequality between Hungary and Poland on the one hand and the other countries on the other, in the period 1987-1992. The information depicted in figure 1 and 2 yields some support for this hypothesis, since perceived (preferred) inequality was relatively low in 1987 and showed a relatively large increase in the period 1987-1992. The relevant data on $\alpha_{1992}/\alpha_{1987}$ and $\beta_{1992}/\beta_{1987}$ are shown in table 1. The range of both ratios is based on the 95% confidence intervals for the means of α and β in 1987 and 1992. Hypothesis IIa and IIb are clearly supported by the data.

Table 1. Development of perceived and preferred inequality

Country	$\alpha_{1992}/\alpha_{1987}$	range $\alpha_{1992}/\alpha_{1987}$	$\beta_{1992}/\beta_{1987}$	range $\beta_{1992}/\beta_{1987}$
Australia	1.82	1.73 - 1.91	1.33	1.25 - 1.40
West Germany	1.08	0.98 - 1.19	1.03	0.92 - 1.16
Great Britain	1.32	1.16 - 1.51	1.24	1.04 - 1.47
USA	1.62	1.41 - 1.86	1.20	1.02 - 1.40
Hungary	2.76	2.51 - 3.03	1.54	1.41 - 1.67
Poland	3.92	2.88 - 5.05	1.94	1.46 - 2.47

Hypothesis IIc predicts that for Hungary and Poland the Leontief equity index in 1992 will be smaller than in 1987. Information on the equity index is shown in figure 3.

Figure 3. Leontief equity index

The equity index for Hungary in 1987 and 1992 is 0.583 and 0.430 respectively. A t-test shows that the difference is significant ($t=21.0$). The equity index for Poland in 1987 and 1992 is 0.549 and 0.440 respectively. Again a t-test shows that the difference is significant ($t=14.3$). Consequently, hypothesis IIc is supported by that data.³

³ In fact, a significant decrease in the value of the equity index is found for all the countries in the sample: Australia: $t=16.3$, West Germany: $t=3.6$, Great Britain: $t=5.5$, and USA: $t=10.4$.

Figure 4. Standard deviation perceived inequality

Figure 5. Standard deviation preferred inequality

Figure 6. Standard deviation Leontief equity index

The *third hypothesis* predicts increasing disagreement on perceived and preferred inequality and equity judgments. The relevant information on the standard deviation of perceived inequality, preferred inequality and the equity index can be found in figures 4, 5, and 6.

Applying an F-test we find that, as predicted, the standard deviations of perceived and preferred inequality increase significantly in Hungary and most notably in Poland. The relevant F-statistics are shown in table 2. Consequently, this hypothesis 3 has been corroborated.

Table 2. F-statistics for hypothesis 3

	Hungary	Poland
Hypothesis IIIa	$(16.31/3.79)^2 = 18.5$	$(95.81/3.98)^2 = 579.5$
Hypothesis IIIb	$(5.21/2.01)^2 = 6.7$	$(28.72/2.70)^2 = 113.1$
Hypothesis IIIc	$(.178/.166)^2 = 1.15$	$(.185/.164)^2 = 1.27$

The results shown in figure 4, 5, and 6 give rise to some additional remarks. Figure 4 shows that the standard deviation of perceived inequality increases in all countries, except for West Germany. The largest increase is found in Poland and Hungary. Figure 5 shows that the standard deviation of preferred inequality increases in all countries, except for West Germany.

In fact, the standard deviation decreases in West Germany. The largest increase is found in Poland. Next are Hungary and Australia. Figure 6 shows that the standard deviation of the equity index increases in all countries, except for West Germany. In fact, the standard deviation decreases in West Germany. In this case, the increases in Poland and Hungary are not exceptionally large.

6. Elaboration

Testing our hypotheses we tacitly assumed that the six countries involved in the ISSP were all 'mature' industrialised countries and that the industrialisation process has proceeded in the time period 1987-1992 in all those countries. In order to substantiate this assumption, this section first of all presents some modernisation indicators for the countries concerned.

Table 3. Modernisation indicators

Country	Urban population (as % of total) 1992	Percentage of labour force in agriculture 1990-1992	Real GDP per capita (PPP\$) 1992	GNP per capita annual growth rate (%) 1980- 92
Australia	85	6	18,220	1.6
West Germany	86	3	21,120	2.4
Great Britain	89	2	17,160	2.4
USA	76	3	23,760	1.7
Hungary	63	15	6,580	0.2
Poland	63	27	4,830	0.1

Source: Human Development Report 1995

The data presented in table 3 indicate, first of all, that none of the countries involved can any longer be described as an agrarian society. In all countries the urban population is much larger than the rural population and only a minority of the labour force works in agriculture. Furthermore, we can observe that in Hungary and Poland until 1992 the industrialisation process had not proceeded so far as it had in the Western countries. The urban population in

the former countries is significantly smaller and the percentage of the population working in agriculture considerably larger than in the latter ones.

Looking at the progress of the industrialisation process in the East-European countries, we can conclude from Table 4 that Hungary can be characterised as an industrial society since at least the mid-sixties and as an advanced or even post-industrial society from the eighties on. Poland, however, was still an agrarian society in the mid-sixties; in the late eighties and early nineties it has the characteristics of an industrial society. There is solid evidence that the command economies of the East-European countries worked well enough for the early stages of the industrialisation process after World War II; in those decades those countries were in many respects 'catching up', or remained at least competitive with the West. In the eighties, however, the 'Third Industrial Revolution' was under way at a global level, this was a revolution of information technology. The command economies were ill-equipped to deal with this stage and found it excessively difficult to enter the race with the West (Szelenyi & Szelenyi, 1994: 216/223; Kumar, 1992: 322). Often a single, readily available number, namely, the per capita GNP of a country is used as an indicator of industrialisation and modernisation (Inkeles, 1993: 2). Table 3 demonstrates that Hungary and Poland severely lagged behind the Western countries regarding the pace of industrialisation and modernisation in the years 1980-1992. At least this is true if the GDP per capita average annual growth rate is taken as an indicator. Table 3 also shows, using real GDP per capita as an indicator, that the level of industrialisation or modernisation in the East-European countries in 1992 was considerably lower than in the West.

Table 4. The progress of the industrialisation process in Hungary and Poland

Country	Hungary			Poland		
Year	1965	1987	1992	1965	1987	1992
% of labour force in agriculture	32	21	15	44	29	27
% of labour force in industry	40	31	31	32	39	37
% of labour force in service	29	48	54	25	33	36

Source: Human Development Reports 1990, 1993 & 1995

Within the framework of modernisation theory these findings make it clear why the East-European countries switched points at the end of the eighties and came to follow the same route as the West to industrialism and modernity. Their command economies and their authoritarian policies of enforced industrialisation had put them off the track.

A second point we want to discuss in this section pertains to the question of why the predicted increase of disagreement on perceived and preferred inequality has been so much higher in Poland than in Hungary (see Figure 4 and 5). Arguing from the point of view of modernisation theory we would expect that the overall similarity of the transition from a command to a market economy should not only lead to a similar direction of the changes in perceived and preferred inequality, but also to changes of about the same size. A plausible answer to the question of why such a disparity in size-effects has been found, can be given by looking at the *actual* process of the economic transition in both countries. While the Hungarian government formed after the parliamentary election in spring 1990 tried to follow a strategy of gradual transition and of defending the standard of living, the Polish government at that time pioneered an economic 'shock therapy' as a radical cure for the economic problems caused by communism. This shock therapy created in the short run many more 'winners' and especially 'losers' from the transition in Poland than in Hungary. The disruptions in the distribution of income in Poland were hence more sudden and on a larger scale than in Hungary.

7. Conclusion

This paper is an attempt to acquire an understanding of what notions, more specifically perceptions and evaluations, people formed of the distribution of income in Eastern Europe before (1987) and after (1992) the 'velvet revolutions' of 1989, and how they compare to perceptions and evaluations in the same period in the West. Modernisation theory was adopted as a theoretical framework. The choice of this framework needs some justification, because for some time now modernisation theory has been discarded by the majority of sociologists. In their opinion this theory has both severe epistemological and methodological shortcomings and a considerable number of its predictions have turned out to be wrong in the past (cf. Wallerstein, 1979; Giddens, 1982). Recently, however, modernisation theory has become more sophisticated and has been making a remarkable come-back (Tiryakian, 1991). The reason for this revival

is that a number of social scientists have come to the conclusion that recent history and especially the transformation process of the post-communist countries in Eastern Europe could be best interpreted as a process of ongoing modernisation.

Our aim was to check this claim by investigating how fruitful modernisation theory really is for interpreting recent developments in East and West, and then especially for understanding changes in perceptions and evaluations of the distribution of income. In order to make this check, we first formulated some hypotheses that modernisation theory seems to imply and afterwards tested them empirically using data from the International Social Survey Programme.

The first hypothesis, relating the degree of perceived and preferred inequality in different countries to differences in starting-points and modernising routes, was rejected. This finding casts some serious doubts on the adequacy of modernisation theory. The second hypothesis postulates that if a society comes to follow the same route to industrialism as other societies, then there will be a convergence between this society and the other societies with regard to the perceived and evaluated hierarchy of incomes of occupations and the degree of income inequality. This hypothesis was supported by the data, since it is found that Hungary and Poland had a relatively low perceived and preferred degree of inequality in 1987 and have experienced a relatively strong increase in perceived and preferred inequality in the period 1987-1992. The third hypothesis states that the changes in Hungary and Poland yielded an anomic situation featuring a reduction in agreement on perceived and preferred inequality and on equity judgement. This hypothesis was supported by the data.

The conclusion is that modernisation theory neither passes the empirical tests with flying colours, nor dismally fails them. The case for or against modernisation theory therefore seems to be inconclusive. We have to emphasise, however, that modernisation theory is an idealisation and only offers a very simplified and stylised heuristic model of what is actually happening in particular societies in modern times. If we want to increase its explanatory value, we have to make it gradually more realistic. Hence it seems to be worthwhile to give more attention, within modernisation theory, to the impact of historical specificity and national variation if and when we want to explain actual societal processes.

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