

September 1996

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Kim, Chulsoo (1996) "Determinants of the Timing of Social Policy Adoption," *The Journal of Sociology & Social Welfare*: Vol. 23: Iss. 3, Article 2.

DOI: <https://doi.org/10.15453/0191-5096.2350>

Available at: <https://scholarworks.wmich.edu/jssw/vol23/iss3/2>

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Determinants of the Timing of Social Policy Adoption

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This study presents a macro-sociological analysis of welfare state development, particularly focusing on the timing of adoption of social legislation, by examining the dynamic relations between the historical constellation of social and political forces and the rationalities of three key social actors in the development of social policy. After a critical analysis of current theories, the variables are tested concerning the effects of different historical sequencing and the accompanying bargaining power of the social actors on the timing of social policy adoption in the western European countries from 1871 to 1976 using event-history analysis. Such variables as the level of industrialization, the interests of state managers, the percentage of the vote which socialist or labor parties received, and the timing of political institutionalization should be considered crucial to explain the development of social policy in these countries.

Since Germany adopted a work injuries program as its first social insurance program in 1871, almost every country has introduced at least one of these five social policy programs: work injuries, health, pension, family allowance, and unemployment (Flora, Alber, Kohl, Kraus, Pfenning, & Seeböhm, 1983; USDHHS, 1988). There are, however, many variations across the countries in the timing of the adoption of social policy. Some countries have adopted all five programs earlier, while others have introduced only a few programs later (ILO, 1988).

During the last two decades many have attempted to investigate these variations, but research findings are often contradictory. Different authors emphasize the strength of different variables, ranging from impacts of industrialization, to political development, to structure of the state. Thus, the study reported

here will examine the relative strength of these variables and their interactive effects in terms of historical sequences of industrialization and political development, by considering the bargaining powers of social actors—largely those of state managers, capitalists, and the working class in specific structural conditions.

Purpose and Literature Review

Formulation of social policy is regarded as one of the important characteristics of industrial society expanding along with the process of industrialization and political development. This study will try to answer the question of how economic, political and class structures, and the bargaining powers of social actors within them, affect the timing of the adoption of the types of five social security programs: old age, invalidity, and survivor (hereafter pension); sickness and maternity (health); work injury; unemployment; and family allowance.

The main scope of this study is to analyze the origin and development of social policy in twelve western European countries: Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Sweden, Switzerland, and the U.K.

There are three theoretical perspectives that try to explain the development of social policy and the welfare state, focusing on "economic examinations," "democratic politics," and "the role of state" (Amenta & Carruthers, 1988, p. 664; Esping-Andersen, 1990; Quadagno, 1987; Williamson, 1987).

The economic examinations perspective considers the influence of structural economic changes as the determinants of welfare state and social policy. The logic-of-industrialism model, one type of this perspective, argues that socioeconomic development, technological growth, occupational system, and demographic changes resulting from industrialization create social problems and new social needs that must be solved by governments. At the same time, economic growth and its bureaucratic outcomes make it possible for the state to respond to these problems and new needs (Cowgill, 1980; Form, 1979; Jackman, 1975; Kerr, Dunlop, Harbison, & Myers, 1964; Lerner, 1958; Pampel & Weiss, 1983; Wilensky, 1975; Wilensky & Lebeaux, 1965). Thus, according to this theory, the higher the level of industrialization and the greater

the size of the aged population, the sooner states develop social programs and the higher the level of spending on them.

Many studies, however, do not support this hypothesis. They conclude that social problems and new needs are not automatically translated into social policy except through some mechanism (Hage & Hanneman, 1980; Williamson & Weiss, 1979; Collier & Messick, 1975). Furthermore, among the Third World countries in general, and "late industrializing countries" in particular, including Korea, Taiwan, Brazil, Turkey, India, and Mexico, social spending on social policy programs does not increase in response to their economic growth of the countries.¹

The theories of democratic politics insist that political activity has the most important influence on social policy spending. This perspective includes two distinctive hypotheses: the "simple democratic hypothesis" and the "social democratic hypothesis" (Hewitt, 1977; Williamson, 1987). In the former, the degree of political democracy by itself is most important. The political competition perspective included in the former hypothesizes that political candidates must consider their voters' policy demand so that "the closer the electoral totals, the sooner the adoption of social programs, the more generous the spending on them" (Amenta & Carruthers, 1988, p. 665). However, this simple democratic hypothesis has not been supported by most studies on American states (Tucker & Herzik, 1986).

On the other hand, in the social democratic hypothesis, the growth of the welfare state is a product of the increase of working class bargaining power (Korpi, 1983) and the role of labor parties supported by the growing strength of labor (Stephens, 1979) resulting from industrialization. Even though this perspective is supported by numerous studies on advanced capitalist societies (Stephens, 1979; Korpi, 1978, 1980; Cameron, 1978), it cannot explain the developments of social policy and welfare state in non-democratic and non-capitalist societies (Flora & Heidenheimer, 1981).

The final perspective emphasizes the role of the state in developing welfare state and social policy. According to Skocpol (1979), the state is "an autonomous structure—a structure with a logic and interests of its own not necessarily equivalent to, or fused with, the interests of the dominant class in society or the full

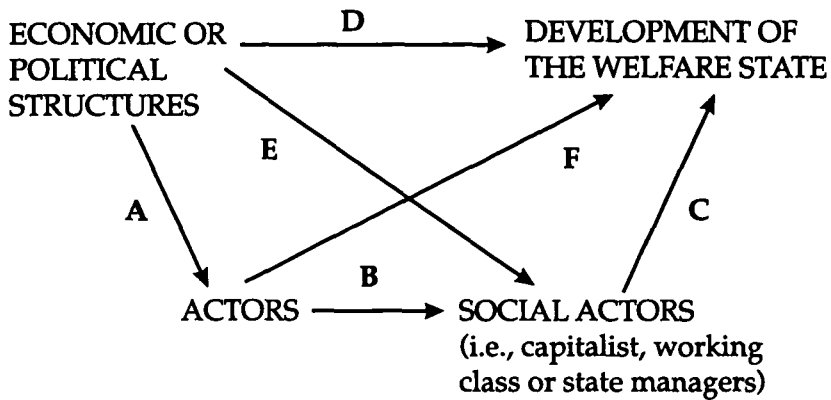
set of member groups in the polity" (p. 27). Thus, social policies are shaped by the structure, character, and historical experiences of the state itself (Skocpol, 1980). The major criticism of the state-centered approach is that it ignores the class nature of the state (Carnoy, 1984), and it overemphasizes one aspect of the state—autonomous structure. According to O'Connor (1973), the capitalist state also has two more functions, which are accumulation and legitimization. As he says, "the state must try to maintain or create the conditions in which profitable capital accumulation is possible. However, the state also must try to maintain or create the conditions for social harmony" (p. 6). Thus, to fulfill these two functions, the capitalist state cannot disregard the influence of both labor and capital on social policy, unless, of course, capital accumulation projects become self-legitimizing.²

As reviewed above and shown in Figure 1, the three categories of social policy theories emphasize only one aspect of determinants—either "supply side" (economic examinations perspective) or "demand side" (theories of democratic politics and working-class-strength theory). Though state-centered theory emphasizes both structural conditions and social actors, it stresses state managers too much. In other words, these theories emphasize either social structure (e.g., the logic-of-industrialism, the state-centered approach) or actors (e.g., labor-union strength theory).

Given the importance of incorporating agency and its micro-foundations, as well as structural conditions, to overcome the reductionist perspectives in theories of the adoption of social policy, the present study tries to answer the following more specific questions:

1. Did industrialization have an important influence on the development of the welfare state in western European countries?
 - a. If so, how did industrialization affect the bargaining power of social actors?
 - b. If so, why did the U.K. adopt social insurance programs relatively later than Germany, Denmark, or Austria?
2. Was political development an effective force for developing social policy in these countries?
 - a. What were the different effects of limited and extended suffrage on the development of social policy?

Figure 1

Causal Structure of Theories of the Welfare State

D: logic of industrialism, simple democratic model,
"structuralist" Marxist

C: state-centered theory (Heclo)

E→C: "Instrumentalist" Marxist, state-centered theory
(Skocpol), working-class-strength (Korpi, Shalev)

A→C: working-class-strength (Stephens)³

3. Were there different effects on the development of the welfare state due to different sequences of industrialization and political development in these countries?

Methodologically, this study will try to overcome the linear perspective existing in most social policy studies. These studies, largely using linear regression models for cross-sectional analysis, assume that social change has occurred in a linear direction so that they cannot consider the interactive effect among variables. Instead, this study assumes that social policy adoption is a historical event, and that the impacts of industrialization and political development affect it differently depending upon the timing of industrialization vis a vis political development.

Method and Data Measures

To assess the interactional impacts of industrialization and political development on the introduction of social policy, this study uses event history analysis. Rejecting the prevalent assumptions

of uni-linear impacts of industrialization or political development in this area, this study assumes that political development, especially limited or universal suffrage, has had different impacts depending upon different levels of industrialization.

Given the assumption, that is, the possibility of an individual event, in this case social policy adoption, the possibility changes depending on the level of industrialization and political development. We can assume that no event occurs in one state at time t_1 and all possible events occur in another state at time t_{1+i} with change rate r_i . One of the powerful statistical techniques for examining the continuous change process such as the level of industrialization and political development with discrete events like social policy adoption is event-history analysis (Tuma & Hannan, 1984; Allison, 1984; Blossfeld et al., 1989; Aitkin et al., 1989). If we suppose that in a certain state at time t_1 , no social policy program is adopted in any countries, and in a state at time t_{1+i} , all possible social policy programs have been adopted in all countries, we can calculate the adoption rate r_i as follows:

$$h(t) = \lim_{s \rightarrow 0} P(t, t + s)/s$$

where $h(t)$: hazard rate (adoption rate)
 $P(t, t + s)$: probability of policy adoption
 in the interval from t to $t + s$

To choose a proper model among alternative non-parametric and parametric models within the event-history-analysis framework, we have to consider several things (Allison, 1984, 1991; Blossfeld et al., 1989): (a) whether discrete time method or continuous time method is appropriate for the data, (b) whether the hazard rate depends on time, (c) whether there is a strong hypothesis on the shape of the hazard and the survival functions to choose between non-parametric and parametric models, and (d) the number of time varying explanatory variables. For the data of this study, the Piecewise exponential model is selected, because: (a) the data includes a lot of time varying explanatory variables so that the discrete time method is more convenient, and (b) the dependent variable, i.e., the year of social policy adoption, covers over one hundred years and includes larger time intervals,

and the Piecewise exponential model can handle this sort of data most properly (Allison, 1991). The Piecewise exponential model can be expressed as the following equation:

$$\log h(t) = \alpha(t) + \beta x(t) \quad [1]$$

where for $a_{i-1} < t < a_i$, $\alpha(t) = i$

and $x(t) = x(a_{i-1})$

$h(t)$: instantaneous transition rate

a : intervals of time scale

x : vector of covariate

α, β : unknown parameter

and the aim is to determine how the hazard rate for a social policy adoption depends on explanatory variables. That is, we are interested in finding how the explanatory variables influence the hazard rate, $h(t)$. The equation [1] indicates the log of the hazard increases or decreases linearly with the explanatory variables, and it also shows that the hazard rate and the variables are assumed constant within each interval.

Statistically, the Piecewise exponential model can be done by an exponential model that is one of the accelerated failure time models in the BMDP program (Allison, 1991; Dixon et al., 1990). Thus, we can also express the Piecewise exponential model as the log of the survival time increases or decreases with the explanatory variables. In the following equation for the accelerated failure time model, let Y represent the natural logarithm of survival time. Then Y can be modeled as:

$$Y = \alpha + \beta X' + \sigma W \quad [2]$$

where α : a constant or intercept parameter

β : vector of coefficients

X' : vector of covariates

σ : a scale parameter

W : a random variable with a specified distribution

In this study, the parameter estimations are carried out using BMDP and SAS statistical programs, which calculate parameters using the equation [2] (Dixon et al., 1990; SAS, 1988).

The quantitative analysis using the Piecewise exponential model will be implemented for separate periods from 1871 to 1919 and from 1920 to 1976, because many considerations suggest the end of World War I as the critical watershed for these countries in their political system, enfranchisement, and party system. The first part will focus on the time period from 1871 to 1919 and the second part will focus on the time period from 1920 to 1976, with the purpose of examining the different effects of explanatory variables in comparison with the first time period.

Description of Variables

Dependent Variable

The dependent variable for the present analysis is the timing of the adoption of the five types of social policy. Since this study is interested in the rate at which the five categories of social insurance programs were adopted, the actual dependent variable is the duration from the year 1871, when the first social insurance legislation was introduced in Germany, until a certain social program was introduced. It is reasonable to begin the analysis before or at the occurrence of a pioneering event, such as 1871.

At the same time, we cannot regard voluntary and comprehensive programs as the same types of events. In other words, voluntary programs can be more easily adopted than comprehensive programs, because the former require less governmental expenditure and cover fewer people. For this reason, the adoption of comprehensive social programs should be weighted. In the present analysis, comprehensive programs are treated as two events, while voluntary programs count as one event. For example, the adoption of a voluntary work injuries program is treated as one event, while the adoption of a comprehensive work injuries program is regarded as two events. Accordingly, the total number of events (i.e., the adoption of different social policy programs) in the twelve countries is 117.

Independent Variable

Variables of Structural Conditions For the level of industrialization, this study uses three variables: (a) GNP (GNP) per capita,

with Gross National Product measured in 1960 US dollars and price, (b) the percentage of the industrial workers in the labor force (WLABO), and (c) the degree of urbanization measured as the percentage of population in cities of 100,000 or more (URBAN).

For political development, the extension of the franchise (FRANAGE) is used, which indicates the electorate as a percentage of the eligible age group, including the female voters if the country granted the right to vote to women.

The extension of the franchise may have different effects on the origin and development of social policy at the various levels of industrialization. In other words, the historical sequence—whether industrialization preceded the extension of the franchise or the extension of the franchise was granted before industrialization—may have different effects on the adoption of social policy. To get at these possible relationships, this study constructed ordinal variables indicating the relative level of industrialization and the times when universal suffrage was granted (TYPE) in the twelve western European countries. To do this, I first combined three variables to measure the relative level of industrialization in these countries. Each level of indicators of GNP, the percentage of industrial labor force, and the degree of urbanization were divided by that of the U.K. in 1870, and the average score was calculated for each country. Accordingly, for example, the industrialization level of 53 for Germany in 1870 means half the level of the U.K. in the same year. Next, the number of years until franchise was granted to over 90 percent of the enfranchised age group was calculated from 1870 in units of decades. For example, over 90 percent of males in the enfranchised age group had the right to vote in 1871 in France. The U.K. reached this percentage in 1919. Accordingly, it took 0.1 decade in France, and 4.8 decades in the U.K. Finally, the industrialization level was divided by that of France in 1871 when the franchise was granted to over 90 percent of males in the enfranchised age group, and these decade years were multiplied by the relative level of industrialization to measure the relative time of universal suffrage and the level of industrialization, simultaneously. Thus, the smaller score indicates that universal suffrage was granted at a relatively earlier time and at a relatively lower level of industrialization.

Variables on Bargaining Power of Social Actors To consider the state managers' bargaining power, a variable of regime type is used. Flora & Alber's (1981) categorization is used to define different political regimes among the countries between 1870 and 1919. Flora & Alber, following von Beyme, classified countries according to whether parliamentary responsibility of government was introduced (parliamentary) or not (constitutional-dualist monarchy). Their classification is: (a) constitutional-dualist monarchies: Austria, Denmark until 1901, (Finland), Germany, Norway until 1884, Sweden until 1917; (b) parliamentary democracies: Belgium, Denmark since 1901, France, Italy (?), the Netherlands, Norway since 1884, Sweden since 1917, Switzerland, United Kingdom (p.79). Regime type (REGIME) is a binary variable where parliamentary system equals one, corresponding to the above classification. This variable is used only to consider the origin of social policy before 1920.

Relating to the bargaining power of state managers, another important variable which the state-centered theorists suggest is state structure including: (a) the degree of bureaucracy, and (b) the tax system (Pampel & Williamson, 1989; DeViney, 1983; Skocpol & Amenta, 1986). The rationale is that the state managers with a stronger bureaucratic structure will have the ability to implement social policy. It is reasonable to consider government personnel to measure the degree of bureaucratic strength because a strong bureaucratic organization will have a relatively large public sector. In this study, the total personnel of general government in percentage of labor force is used. The tax system is important to state managers because the highest proportion of their expenditure depends on taxes. In this respect, the degree of centralization and direct tax in the system is very important in determining state managers' bargaining power. Some researchers suggest that tax structure based primarily on direct taxes prevents social policy adoption, because it makes it difficult to raise funds for continued social expenditures (Pampel & Williamson, 1989; Cameron, 1978). In this study, the percentages of centralization and direct tax are used.

For the capitalists' bargaining power, this study constructed one binary variable: the world economic situation (WE). The assumption for this variable is that when the world economy is in

a downswing, the capitalist bargaining power will be weaker so that state managers can respond to the demands of the working class which is getting stronger in this situation. Following Goldstein's periodization of the Kondratieff wave (1985; Strang, 1990), the periods of 1872–1893 and 1917–1940 are identified as downswings, and 1893–1917 and 1940–1967 as upswings. The binary variable "WE" equals one in upswings and zero otherwise.

For measuring the degree of the working class bargaining power, three variables are used: (a) the percentage of industrial workers in the labor force, (b) the extension of the franchise, and (c) the percentage of the vote which labor or socialist parties received.

Tables 1 and 2 present descriptive statistics for these explanatory variables. The correlations between these variables reported in table 2 allow us to explore preliminary analysis of relationships

Table 1

Means and Standard Deviations of Independent Variables for Two Different Time Periods

| Variables | 1871–1919 | | 1920–1976 | |
|-------------------|-----------|--------|-----------|--------------------|
| | Mean | s.d. | Mean | s.d. |
| <i>Structural</i> | | | | |
| GNP | 616.28 | 201.60 | 1111.42 | 371.85 |
| URBAN | 14.42 | 10.37 | 21.26 | 8.60 |
| FRANAGE | 67.63 | 24.98 | 75.59 | 21.63 ^a |
| TYPE | 5.14 | 3.67 | 5.00 | 3.32 |
| <i>State</i> | | | | |
| REGIME | .36 | .48 | | |
| GADMIN | .66 | .33 | 1.08 | .58 |
| TAXDI | 45.72 | 10.44 | 52.52 | 10.50 |
| CENT | 67.15 | 12.62 | 75.41 | 13.88 |
| <i>Capitalist</i> | | | | |
| WE | .63 | .49 | .48 | .50 |
| <i>Workers</i> | | | | |
| WLABO | 30.61 | 9.15 | 36.43 | 8.02 |
| SOCVOTE | 11.62 | 11.24 | 32.87 | 10.87 |

Table 2

Pearson Correlations between Independent Variables

1871-1919

| | GNP | WLABO | URBAN | FRAN | TYPE | REGI | GADMI | CENT | TAXDI | WE | SOCVOTE |
|---------|------|-------|-------|------|------|------|-------|------|-------|------|---------|
| GNP | 1.00 | | | | | | | | | | |
| WLABO | .83 | 1.00 | | | | | | | | | |
| URBAN | .73 | .80 | 1.00 | | | | | | | | |
| FRANAGE | .44 | .31 | .21 | 1.00 | | | | | | | |
| TYPE | .18 | .18 | .26 | -.08 | 1.00 | | | | | | |
| REGIME | -.41 | -.38 | -.36 | -.21 | -.00 | 1.00 | | | | | |
| GADMIN | -.11 | .24 | .25 | .06 | -.08 | -.24 | 1.00 | | | | |
| CENT | .07 | -.02 | .30 | -.09 | -.07 | .06 | -.11 | 1.00 | | | |
| TAXDI | .29 | .51 | .45 | .05 | .20 | -.35 | .59 | -.27 | 1.00 | | |
| WE | .30 | .14 | .19 | .19 | -.00 | -.22 | .09 | -.10 | .13 | 1.00 | |
| SOCVOTE | .17 | -.05 | -.01 | .39 | -.06 | -.17 | .14 | -.14 | .12 | .44 | 1.00 |

Table 2 *Continued*

1920-1976

| | GNP | WLABO | URBAN | FRAN | TYPE | GADMIN | CENT | TAXDI | WE | SOCVOTE |
|---------|------|-------|-------|------|------|--------|------|-------|------|---------|
| GNP | 1.00 | | | | | | | | | |
| WLABO | .47 | 1.00 | | | | | | | | |
| URBAN | .05 | .45 | 1.00 | | | | | | | |
| FRAN | .10 | .13 | .15 | 1.00 | | | | | | |
| TYPE | .32 | .48 | .37 | .09 | 1.00 | | | | | |
| GADMIN | .19 | .48 | .65 | .07 | -.05 | 1.00 | | | | |
| CENT | -.19 | -.05 | .19 | .07 | -.47 | .50 | 1.00 | | | |
| TAXDI | .36 | .28 | .19 | .08 | .65 | -.12 | -.60 | 1.00 | | |
| WE | .37 | .17 | .11 | .06 | .00 | .27 | .12 | .08 | 1.00 | |
| SOCVOTE | .04 | -.21 | -.08 | .12 | -.09 | -.15 | .19 | -.19 | -.03 | 1.00 |

between the level of industrialization and the political development. The table shows that there are very low correlations between the extension of the franchise, the percentage of vote which socialist or labor parties received, GNP, the percentage of the industrial workers, and urbanization, particularly between the percentage of industrial workers and the extension of the franchise. It means that an increase in the number of industrial workers did not automatically extend the franchise nor strengthen a socialist or labor party. This weak relationship rejects the basic assumption of working-class-strength theory. Likewise, the low correlation between the level of industrialization and the extension of the franchise also rejects the assumption that industrialization automatically brings democratization.

Data Sources

The data for the analysis of western European cases are mostly selected from Flora et al.'s book, *State, Economy, and Society in Western Europe, 1815-1975: A Data Handbook in two Volumes* (1983). The book consists of ten chapters such as National States, Mass Democracies, Personnel of the State, Resources of the State, Welfare States, Population and Families, Urbanization and Housing, Economic Growth, Division of Labor and Inequality, and Trade Unions and Strikes. The introduction of a social insurance system and its growth is a dependent variable, while urbanization, the industrial labor force, government personnel, public expenditure are independent variables which are selected from relevant chapters. Flora's earlier version of this book, *Quantitative Historical Sociology* (1975) is used as a complement to the later work. Other sources include Bairoch's *Europe's Gross National Product: 1850-1975* (1976) and *International Industrialization levels from 1750 to 1980* (1982) for GNP per capita, the second and the third volumes of Cook & Paxton's *European Political Facts* (1978, 1981), McHale's *Political Parties of Europe* (1983), and *Stateman's Year-Book* between 1883 and 1930.

Results of Analysis

In this study I have tried to determine: (a) whether the rate of the adoption of the five social insurance programs depends

on structural conditions, as suggested by the logic of industrialism or political development theory, or whether the rate also depends on social actors' bargaining power; (b) whether or not the different sequential developments of industrialization and enfranchisement have an important effect on the adoption of the five social insurance programs.

Table 3 presents the estimated coefficients, their standard errors (in parentheses), and their p-values for Piecewise exponential model of the transition rate of social policy adoption for separate

Table 3

*Ms Estimates of Transition Rates of Social Policy Adoption
1871–1919 and 1920–1976^a*

| Variable | 1871–1919 | | 1920–1976 | |
|----------------|-----------------|----------|-----------------|----------|
| | Estimates (1) | p-value | Estimates (2) | p-value |
| B ₀ | 4.7468 (1.6680) | .0044*** | 6.6066 (1.8707) | .0004*** |
| Structural | | | | |
| GNP | –.0059 (.0024) | .0151* | –.0001 (.0004) | .8950 |
| URBAN | –.0558 (.0376) | .1375 | –.0299 (.0258) | .2468 |
| FRANAGE | –.0024 (.0068) | .7249 | | |
| REGIME | –.2282 (.3595) | .5256 | | |
| TYPE | .2301 (.0850) | .0066** | .1701 (.0691) | .0138* |
| State | | | | |
| GADMIN | –.7090 (.7104) | .3183 | –.0590 (.5553) | .9154 |
| CENT | .0254 (.0159) | .1107 | –.0020 (.0156) | .8967 |
| TAXDI | –.0272 (.0216) | .2086 | –.0107 (.0210) | .6118 |
| Capitalists | | | | |
| WE | .4972 (.3453) | .1499 | –.6922 (.2914) | .0175* |
| Workers | | | | |
| SOCVOTE | –.0477 (.0162) | .0033*** | –.0371 (.0193) | .0543 |
| WLABO | .0549 (.0340) | .1071 | –.0347 (.0222) | .1185 |
| GLOBAL | | | | |
| CHI-SQUARE | 70.5200*** | | 24.8700*** | |
| (df) | 11 | | 9 | |

*p < .05 **p < .01 ***p < .005

^aStandard errors in parentheses.

analyses of two time periods from 1871 to 1919 and from 1920 to 1976. The regression coefficient indicates the relative effect of the covariate on the survival time. In interpreting the meaning of these coefficients, special attention should be paid to their positive or negative signs and the degree of statistical significance. The absolute values of coefficient, however, cannot be compared directly with each other. Since BMDP and SAS statistical programs for the exponential model estimate parameters on the basis of the assumption that the survival time of a certain event is related to the explanatory variables log-linearly, a positive coefficient in table 3 indicates a positive effect on survival time. Accordingly, a positive coefficient decreases the value of the hazard function. A negative coefficient has the reverse interpretation, that is, it increases the value of the hazard function and, therefore, indicates a negative effect on survival time.

Early Social Policy Adoption from 1871 to 1919

The estimates (I) in table 3 show that structural conditions such as the level of industrialization are significant variables. At the same time, the different sequential developments of industrialization and enfranchisement also have a significant impact on the time of social policy adoption. Likewise, the table reveals that social actors' bargaining power is also an important variable in the explanation of social policy adoption.

Consistent with the findings of the "logic of industrialism," the level of GNP increases the rate of social policy adoption significantly (significant at the .05 level). This result, however, should not be interpreted comparatively, but historically. That is, the rate of social policy adoption increased according to the growth of GNP in a certain country, but the countries with a higher level of GNP did not necessarily adopt social policy earlier between 1871 and 1919.

Concerning the different effects of sequential development of industrialization and political development, however, the table shows that the estimate for TYPE is positive, indicating that the countries in which universal male suffrage was granted at a relatively lower level of industrialization adopted social policy programs earlier than the countries in which universal male suffrage was granted at a higher level.

Figure 2

The Level of Industrialization and Extension of Male Suffrage at the Time of First Insurance Adoptions

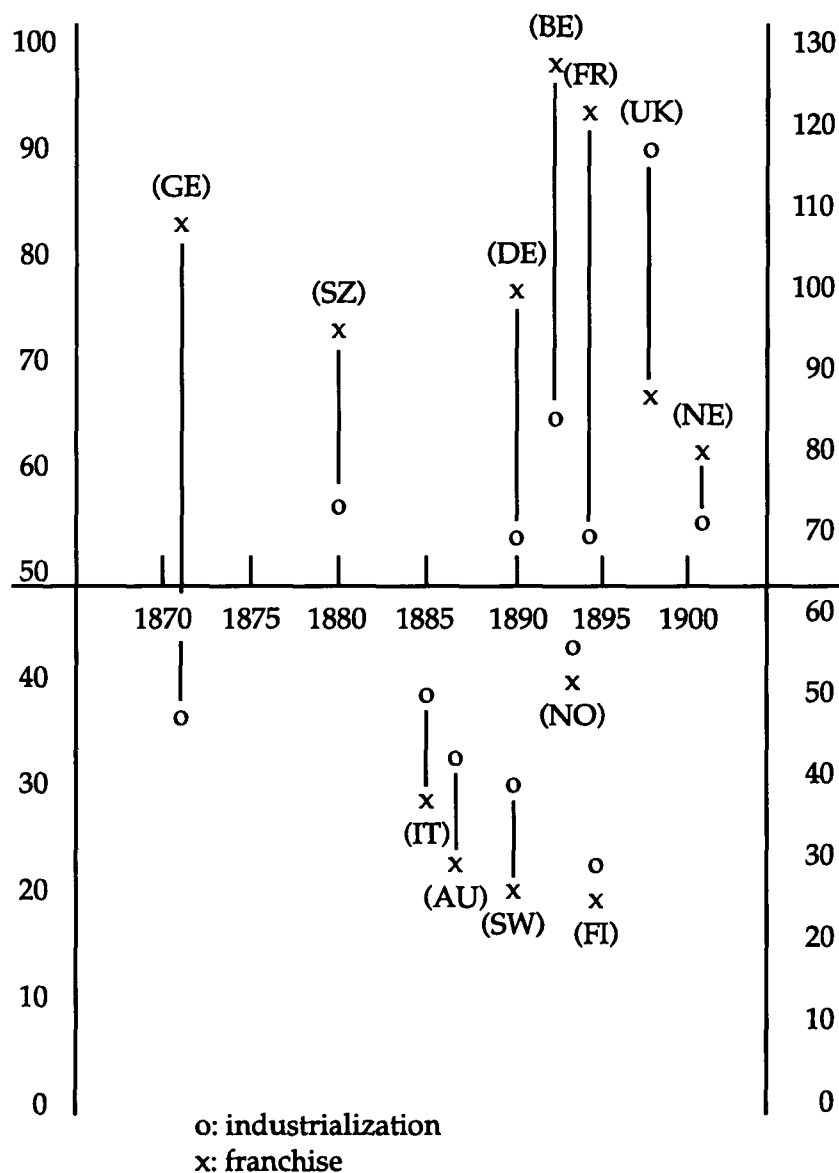


Figure 2 shows the correlation between the different sequential developments and the adoption of the first social insurance program among these countries. If we exclude Germany, the other countries can be categorized into two groups. One group including Italy, Austria, Sweden, Finland, and Norway adopted the first social insurance system at a relatively lower level of industrialization under more limited suffrage. The other group including Switzerland, Denmark, Belgium, France, the U.K., and the Netherlands adopted the program at a relatively higher level of industrialization under more extended suffrage. In other words, if we consider that in most western European countries industrialization preceded the extension of male suffrage, countries at a lower level of industrialization could adopt a social insurance system under the less extended suffrage, while higher industrialized countries had to wait to adopt the program until enfranchisement was extended to more people. Furthermore, countries at a lower level of industrialization, especially Italy, Austria, Sweden, and Finland, adopted a social insurance system earlier than others at a higher level of industrialization such as the U.K., Belgium, the Netherlands, France, and Denmark. This result simply rejects the argument of "logic of industrialism" which sees social policy adoption as a simple result of industrialization, at least in explanation of the first social insurance adoption. Since most of these countries had already started industrialization when they adopted the first social insurance system, the above results, however, do not mean that industrialization is not important in the explanation of welfare state development, but they mean that industrialization alone is not a sufficient variable for welfare state development. Rather, figure 2 suggests that the more important condition is at which level of industrialization the major extension of male suffrage was granted. Thus, the results clearly illustrate that the democratization has different effects according to the level of industrialization.

On the other hand, other variables related to structural conditions have no significant effects on the adoption of social policy at the .05 level. Particularly, the extension of the franchise and regime type do not have any significant effect on their own in the explanation of social policy adoption.

In relation to working class bargaining power, the positive sign of estimates for WLABO indicates that the size of the industrial sector of the labor force has a negative effect on the rate of social policy adoption, even though it is not statistically significant at the .05 level. On the other hand, the percentage of the vote which labor or socialist parties receive has a positive effect on the rate of social policy adoption, and statistically significant at the .05 level, indicating that many social policy programs in earlier time periods were adopted with the growth of socialist or labor parties.

Variables concerning state-strength theory have few effects in the first period. The negative sign of estimate for REGIME indicates that social policy programs were adopted earlier under constitutional-dualist political systems in which parliamentary responsibility for government was not yet introduced, but it is not statistically significant at the .05 level. Inconsistent with the results of state-strength theory (DeViney 1983, 1984), the number of general administrators and the degree of tax centralization did not have significant effects on the rate of social policy adoption in the first period. At the same time, tax structure operationalized by the proportion of direct tax rate (TAXDI), and centralization (CENT) did not have a significant effect in this period.

Finally, the estimates (I) in table 3 show that the estimate for the world economic situation (WE) is positive, suggesting that during world economic downswing, the rate of social policy adoption increased, but this variable also has no significance at the .05 level.

Late Social Policy Adoption from 1920 to 1976

For the analysis of the late period from 1919 to 1976, the variables are generally the same as those for the early period presented in table 3. Many social policy programs, however, were introduced under limited suffrage in the first period, while universal suffrage was granted in most countries before the second period, and political systems had changed into parliamentary democracy; thus, the variables of the extension of the franchise and regime type were deleted for the analysis of the second period.

The effect of the different sequential development (TYPE) is negative on the survival time, the same as in the early period and statistically significant at the .05 level, indicating that even in the late period social policy programs were adopted earlier in the countries in which universal suffrage was granted at a relatively lower level of industrialization.

The estimates (2) in table 3 also show that the world economic situation (WE) has significant effects at the .05 level in the late period. That is, the rate of social policy adoption increased when the world economy was on an upswing. Since this effect was the reverse of that of the early period, one possible explanation concerning the world economic situation is that under limited suffrage, the relatively strong state managers respond to the demand of the working class when the world economy was in a downswing, while in the late period, relatively strong capitalists objected less when the world economy was on an upswing. Another possible explanation is that socialist or labor parties could receive more support after W.W.II, and that period was consistent with the periodization of economic upswing. In this respect, the effect of the world economic situation on social policy adoption in the late period might be spurious due to the effect of W.W.II. In addition, the effects of the world economic situation on each country may be different. Therefore, the effect of the world economic situation on the development of social policy needs further investigation in a future study.

Working class bargaining power has a contradictory effect in this period compared with the early period. The size of the working class in the labor force has a positive effect on the rate of social policy adoption in the second period unlike the first period, even though it is not statistically significant at the .05 level in both periods. At the same time, the percentage of the vote which socialist or labor parties received is not significant at the .05 level. But the result shows that it still has a positive effect on the rate of social policy adoption and has a relatively significant effect ($P = .054$).

A remarkable result in the second period is that the variables concerning the level of industrialization such as the GNP, urbanization, and the size of the working class have little effect on the survival time. Likewise, the variables concerning state-strength

theory, such as the degree of bureaucracy and tax structure, did not have any more significant effects on social policy adoption in the late period than in the first period.

Discussion

In this study, I have tried to link empirical patterns in the development of western European social policy programs to the theoretical framework of the different sequences of historical development. The findings of event-history analysis in early and late periods showed that the variables of the vote which the socialist or labor parties received, and the interactive effect of industrialization and political development had commonly positive significance in both periods on the rate of social policy adoption. On the other hand, the level of GNP had a positive effect only in the early period, and the upswing of the world economic situation had a positive effect only in the late period. Other variables were not significant in either period at the level .05, but the comparison of their p-values suggests some conclusions concerning the current theories of social policy adoption: (a) Logic of industrialism arguments connecting the level of GNP to social policy development receive some support. The results showed that, only on a lower level of industrialization, the rate of social policy adoption increased with the growth of the level of GNP. (b) Working-class strength theory also receives limited support. According to the results, the working class can have influence on the development of social policy only through the bargaining power of socialist or labor parties, indicating that the interests of the working class are not expressed on the individual level, but on the collective level through political institutionalization. Rather, the findings suggest, the size of the working class itself has different effects in the early and late periods—it is negative in the early adoption, while it is positive in the late adoption. Finally, (c) the separate analyses of the two periods also showed that state-centered arguments can receive some support only under the condition of limited political development. The variables concerning state-strength theory have a stronger effect in the first period, as we expected, while they have a weaker effect in the second period, indicating that the role of state managers in social development is more important

under the conditions of limited political development. In sum, separate analyses of the two periods clearly show that there are different forces bringing about the introduction of social policy.

The survival analysis of BMDP program provides the global chi-square (χ^2) statistic, which tests the hypothesis that all regression coefficients are identically zero. According to table 3, the global chi-square scores are 70.52 and 24.87 for both models of early and late social policy adoption, respectively, and are statistically significant at the .005 level with 11 and 9 degrees of freedom. It indicates that cross-sectional and temporal variation in the measured covariates are sufficient to account for the development of social policy in both early and late periods of western European countries.

Notes

1. Among these countries, for example, the average annual growth rates of GNP per capita of Brazil, Mexico, India between 1965 and 1986 are 4.8%, 2.6%, and 1.8%, respectively (World Bank, 1988, pp. 222-223). But their expenditure of social security schemes as percentages of GDP in 1983 remain 5.6% (4.3% in 1965), 2.8% (2.6% in 1965), and 1.5% (1.3% in 1965) in Brazil, Mexico, and India (ILO, 1988).
2. In some policy domains such as road construction, of course, capital accumulation projects become self-legitimizing. In social policy domain, however, the higher social expenditure surely prevents capital accumulation, while it increases the legitimacy.
3. In the basic model of working-class-strength theory, both Korpi and Shalev, and Stephens emphasized the mobilization of working class for labor unions and socialist parties. But they did not provide the explanation of causal link B in Figure 1, by arguing that an increase of the numbers of workers (Stephens), or economic forces and historical events (Korpi & Shalev) determined the mobilization of workers. In this respect, working-class-strength theory provides structural explanation (Rothstein, 1990, p. 319).

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