THE AUTONOMY OF AN INDUSTRIAL RELATIONS SYSTEM, A CONCEPTUAL MYTH OR A FACT OF LIFE?

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Can the industrial relations domain be treated as a system? Interactive relationships among elements and relative autonomy from a discernible environment are essential conditions for a system situation.

Strike activity in Israel takes place in a highly politicized situation. Israel can, therefore, be selected as a critical setting for testing the system thesis. Strikes that occurred during thirteen 91-day periods pre-, post- and two years after parliamentary elections were analyzed through a log-linear method. Two macro political variables (timing of strike, ruling party) and three features of the striking unit (approval of strike by legal union, ownership sector, economic branch) were included in the analysis. The findings show that: (1) striking units exhibit autonomous, though not independent, industrial relations system characteristics, (2) the industrial relations system of the striking units is highly connected with the industrial relations systems of their corresponding superordinate organizations, and (3) the political factor serves as an independent constraint on the functioning of the industrial relations systems of the striking units.

INTRODUCTION

Any meaningful use of system conceptualization requires an identification of the clear boundaries of the subject matter of interest. A system which is indistinguishable from its environment is a non-system. The idea that the field of industrial relations can be comprehended effectively by a system conceptualization was originally introduced by Dunlop (1958). Dunlop conceived "an industrial-relations system at any time in its development ... as comprised of certain actors, certain contexts, an ideology which binds the industrial-relations system together, and a body of rules created to govern the actors at the work place and work community" (Dunlop, 1958:7). These four elements, actors, contexts, ideology and rules, can be treated as four interdependent subsystems: the industrial relations subsystem (IRS), and three contextual subsystems, economic, political, and technological. The four-subsystem idea can be applied on various units of analysis (UOA): a single organization, an economic branch (transportation, manufacture, etc.), a single community, a sector of ownership (private, public, etc.), or a nation. These UOA's can be set along a super-ordinate - sub-ordinate continuum. A subordinate UOA, a single organization, for example, is subordinated to an economic branch UOA. A simplified demonstration of the multi-level UOA - four subsystems model is presented in Table 1.

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Table 1. Selected Hypothetical Examples of Ties in a Four-Subsystems - Multi-UOA's Universe

Subsystem	Unit of Analysis			
	Same	Link	Different	Link
Same	Local union - local management bargaining	Intra local IRS	Nomination of an executive in a subsidiary	Firm IRS-subsidiary IRS
	Executive elections in an industrial union	Intra industry IRS	Approval of local strike by a national union	Local IRS-national IRS
Different	Safety constraints on flexible working hours	Plant technology - Plant IRS	Recession of the national economy and local strikes	National economy - Local IRS
	Implications of national wage policy on external debt	National IRS National economy	Ethnic relations and plant discipline	National polity - Plant IRS

The applicability of the idea of a system to the field of industrial relations can be challenged from three types of external boundaries (Dunlop, 1958) and from (at most) two level boundaries. If an industrial relations system is undifferentiated from either the economic, the political or the technological systems, it will be found to be totally determined by some or all of these contextual constraints. From another angle, an industrial relations system of a given unit may be entirely absorbed by its surrounding system. For example, a national industrial system can be centralized to such a degree that a study of a local IRS may be a fruitless venture. Different situations can be imagined, where superordinate, rather than subordinate, systems are unrealistic terms. A national IRS may be non-existent. A country where all rounds of union-management negotiations take place on an enterprise level, where no coalition bargaining exists, where only plant-level unions are found, such a country does not have a national IRS.

An analysis of the autonomy of a given system is an important prerequisite for the application of a system theory to any domain of interest. The present paper has one target in mind: exploring the degree of autonomy from the national political environment of the Israeli IRS at the level of the striking unit. Such autonomy, or its absence, may have important theoretical and policy-related implications.

The Israeli Situation: Some Structural Characteristics

The Israeli labor market has at least three attributes relevant to the present analysis:

a. *It is highly unionized.* "About 88% of Israeli employees are unionized in trade unions which cover almost the whole range of the professional groups" (Krausz, 1980, 14).

b. *It has a single dominant union movement.* Most Israeli organized workers are members of the General Federation of Labor (the Histadrut). This unique union movement is governed by its executive bodies, all of which are formed along party lines and elected through general, not industrial or professional, elections.

c. *It has a large and extensive public sector.* Approximately 30% of the Israeli labor force is employed in governmental, municipal or other public-owned enterprises. Another 20% of Israeli workers earn their living in the Histadrut sector, more than half of them (54 percent) as salaried workers (Institute for Economic and Social Research, 1977:25).

All three attributes of Israeli society have far-reaching political implications. The unionization of a labor market transforms employer-employee relations from the individualistic to the collectivistic mode (Flanders, 1970). The process of collective negotiations "is best described as a diplomatic use of power" (Flanders, 1970, 219). Such negotiations are conducted by union officials and managements. In Israel, the main union, the Histadrut, is a political organization, led by representatives who are elected through party-mediated channels. Managements in government and municipal-owned units are constantly exposed to the pressures of the central and the local political organs, all of which are, once again, predominantly composed of party officials.

A large majority of Israeli salaried workers are members of unions whose policy formulation and implementation procedures may be heavily motivated by party-line considerations. Key figures on the management side can be regarded as prompted by similar considerations. These structural features create a constant threat to the autonomy of the IRS. Israel is a highly politicized society. Public-owned enterprises, and public services as well, are heavily integrated in the political sphere. During election periods, political tones are amplified to the maximum. Therefore, an analysis of strikes in Israel, a study focusing on the actions and decisions of the various actors of the IRS during election periods and in the public sector, bring to a critical test the system component of the IRS concept and its autonomy. This test is the core issue of the present paper.

Israeli Strike Statistics: Some relevant data

The Israeli strike pattern can be typified as of medium frequency and medium size, but of very short duration. The brief duration is a clear indication of the political underpinnings of Israeli strikes (Shorter and Tilly, 1974). They are not wars of attrition, but exchanges of symbolic gestures and an integral part of an institutionalized negotiation process.

Strikes are never distributed evenly in an economy. "It is abundantly clear that Britain does not have a widespread strike problem, but rather a problem of stoppages concentrated in a small minority of manufacturing plants and in certain non-manufacturing sectors" (Smith *et al.*, 1978:63). Israeli strikes are an exception, not because of their random or even distribution, but due to their economic branch and ownership sector location. As can be seen in Table 2, the propensity to strike (col. 8) is at its peak in public utilities. Workers in the electricity and water branch tend to strike at a rate more than double (2.3) their proportion of the salaried workers popu-

lation. A similar tendency (1.5) characterizes employees of transportation and public services (2.1) units. Parallel analysis can be conducted along the ownership sector axis. Here the results are clear and straightforward: approximately 69.7 percent of the strikers work in public owned units, whereas these places of employment account for merely thirty percent of the salaried workers. The figure for propensity to strike in this category of workers is, therefore, 2.3!

Table 2. Strikers[a] and Salaried Workers[b] in Israel: Descriptive Statistics

Economic Branch	Ownership Sector					% salaried workers	Adjusted[c] % strikers	(7) / (6)
	Private	Histadrut	Public	Multi-Sector	Total			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Agriculture	2,675	2,375	4,361	4,032	13,443	2.5	.5	.2
Industry	112,553	44,232	42,482	6,583	205,850	28.0	8.9	.3
Electricity - water	–	–	60,992	–	60,992	1.2	2.7	2.3
Construction	1,906	7,147	9,161	15	18,229	8.3	.8	.1
Commerce	10,893	433	2,809	150	14,285	7.7	.7	.1
Transportation	2,414	32,061	200,233	4,231	238,959	7.1	10.4	1.5
Finance	40,717	345	126,131	1,200	168,393	7.0	7.3	1.0
Public services	82,001	146,897	657,544	688,223	1,574,665	32.8	68.0	2.1
Private services	7,740	1,474	5,818	–	15,032	5.4	.7	.1
Non-classifiable	–	–	27,400	743,458	770,858	. .	. .	. .
Total	260,899	234,964	1,136,931	1,447,912	3,080,706	100.0	. .	. .

[a] Total number of strikers during the years 1965-1983

[b] Estimation made by the Institute for Economic & Social Research

[c] Non-classifiable divided among the various branches according to relative size.

METHODOLOGY

Data

Strike statistics are collected in Israel by the Institute for Economic and Social Research of the Histadrut[1] in collaboration with the Department of Industrial Relations in the Ministry of Labor and Welfare. Raw strike figures are available from the year 1965. These data files are the main source for the present analysis.

There were five consecutive Knessets (Parliaments) during the period under study (1965-1983). For each of the five, three 91-day subperiods were sampled: the pre-election period, immediate post-election period, and a routine functioning period, two years after a given election date.

Table 3. Strike Frequency by Knesset and Election-Time Category

Election Date	Knesset No.	Election-time category			Total
		Pre	Post	Routine	
2.11.65	6	86	76	34	196
28.10.69	7	37	32	34	103
31.12.73	8	2	10	14	26
17. 5.77	9	53	23	29	105
30. 6.81	10	22	11	24	57
Total		200	152	135	487
%		41.1	31.2	27.7	100.0

Two main events must be considered, prior to any meaningful analysis of Table 3: the October, 1973 Yom Kippur War and the May 17, 1977 political upheaval[2]. The first event erupted when elections were impending. The election date was postponed, but life did not return to normal. As can be seen in Table 3, labor unrest almost disappeared. Only *two* strikes are reported for the three-month period before elections and only 10 occurred in the post-election period. The Yom Kippur War and its repercussions are not relevant to our present subject. Therefore, the data for the pre- and post-8th Knesset periods were dropped from the current analysis.

The 1977 political upheaval, which marked the end of the Labor Party's 29-year dominance of the Knesset is, on the other hand, of cardinal importance for our discussion. It opened a door to a situation in which the ruling party in the government and the leading party in the Histadrut were not one and the same. Ignoring this fact may imply a disregard for a possible major source of strain between the Israeli IRS and the Israeli political system. An optimal research design for our purpose would have included six subcategories, each appearing the same number of times: pre-elections, post-elections, and normal routine functioning period for the pre-1977 elections and three others for the post-May 1977 elections. Insisting on equal cell frequencies by limiting each category to the lowest common denominator would have shaped our data to a single sub-period for each category. This is so because only one pre-election period occurred under Likud rule[3]. In order to keep a six-cell design intact, while overcoming the limitations of the data, we selected the strike frequencies per 100 days[4] statistic, instead of raw strike figures, for the analysis. Table 4 shows the data in their modified form.

Table 4. Strike Frequency per 100 Days by Election Period and Ruling Party

Period	Ruling party	
	Labor	Likud
Pre-elections	64	24
Post-elections	59	19
2 years after	30	29

As Table 4 shows, striking style changed dramatically after the 1977 political upheaval. Both pre- and post-election periods, customarily times of peak strike activity, show very mild levels. Routine functioning periods, on the other hand, displayed almost identical levels under both regimes.

Variables

Our model can be perceived as constructed of two dimensions, one hierarchical and the other – nominal. The hierarchical dimension refers to the level of the UOA, and the nominal to the IRS and its environmental, economic, status or political, and technological constraints.

Raw strike data refer to an IRS activity, performed by a specific unit. Most Israeli strikes are either enterprise actions (plants or specific offices), or professional actions (a given occupation or profession). Therefore, strike statistics include information on items like cause, results, ownership sector, economic branch, state of approval by the appropriate trade union authority, identity of the striking or approving trade union, employer association, etc. An examination of the autonomy of a given IRS from its surrounding environment needs information on higher levels of organization, i.e., the national level IRS[5]. The present analysis includes three striking unit level variables and two national level characteristics.

a. Striking units variables

i. Approval of the strike by the legal representative union: (1) approval granted; (2) wildcat strike. The by-laws of the Histadrut prohibit independent strike declaration on the part of a union of a given level. Approval rights are granted to a superordinate authority of the union echelon.

ii. Economic branch: (1) public services or public utilities; (2) other economic activities. The first category includes the following branches: electricity and water, transportation, and public services. Strikes by non-classifiable units were dropped from the analysis. All other branches were included in the second category.

iii. Ownership sector: (1) public ownership; (2) private ownership. The public sector includes government, municipal, national and Histadrut-owned enterprises.

b. National level variables

iv. Timing of strike: (1) pre-Knesset elections; (2) post-Knesset elections; (3) routine functioning period. All three time categories extend for thirteen weeks (91 days). This specific choice was made so as to avoid distortion of the data, stemming from the fact that strike commencement is not distributed evenly over the days of the week. The non-election period (category 3) is a 91-day period whose median is exactly two years after a given election date[6].

v. Ruling party: (1) Labor Party; (2) Likud.

Statistical Method

Data analysis was done through contingency table analysis by means of a log-linear method. This method allows us to describe the structural relationships among a set of

categorical variables. It is most useful in circumstances of dichotomous variables. This is the main reason for the division of four of the above described variables (i, ii, iii and v) into two values only. Dichotomization highly simplifies the log-linear analysis, and is therefore preferred. The procedure will not be described in detail here. Details of the method can be found in Fienberg (1980) and in Knoke and Burke (1970)[7].

ANALYSIS

We can imagine three alternative polar system situations in the industrial relations arena: a. strike activity is totally determined by external, i.e. political, factors; b. strike activity is a purely industrial relations phenomenon and is totally determined by internal factors of a given level; and c. strike activity is a multi-level system activity, characterized by both autonomy for the striking unit and inter-penetration with its surrounding (and for that purpose, surrounded) levels.

The first scenario is equivalent to the non-existence of an IRS on a given subordinate level. An externally determined system is a non-system. A cardinal and essential idea in the system conceptualization is the assumption that intra-systematic processes do make a difference.

The second option implies a situation where enterprise level strikes are explainable predominantly in terms of enterprise level characteristics (ownership, technology, economic), and a given locality's strike pattern is determined by characteristics of the community in which it is located (size, industry mix, level of unionization, etc.). This hypothetical alternative is equivalent to a state of a closed IRS system. A closed system owns complete autonomy, and maintains complete autocracy.

The third situation is a case where system conceptualization can be applied meaningfully to a subordinate level without denying the existence of hierarchical relationships. This is a situation where the notion of autonomy gains its highest interest.

The log-linear procedure allows us to test the applicability of these three system-state possibilities to strike activity in Israel. By means of model selection methods and comparison of different models an evaluation of models can be done and a limited number of parsimonious models can be chosen.

Table 5. Strike Activity in Israel – Comparison of Various Models

Model Title	Model[a]	df	G^2
External constraints model	[45]	42	126.69*
Closed system model	[123]	40	82.88*
Hierarchical system model I	[123] [45]	35	29.04
Hierarchical system model II	[12] [13] [23] [45]	36	29.03

* $p < .001$

[a] Legend: 1 – Approval of strike by legal union
2 – Ownership sector
3 – Economic branch
4 – Timing of strike
5 – Ruling party

Table 5 presents relevant information for the analysis[8]. Neither the external constraints model nor the closed system model supply a satisfactory fit to the data. There-

fore, strikes in Israel can be regarded neither as a deterministic result of the political environment, nor as a purely industrial relations system affair. Nevertheless, the industrial relations system of the striking units can still be comprehended as an autonomous open system. The three characteristics of the system – approval by a representative union, ownership sector and economic branch – interactively shape the odds of taking a decision to strike. The two external factors, the timing of the strikes along the election sequence and the identity of the ruling party, show their own independent influence. These two variables make an independent (though, once again, interactive) contribution to the odds of strike frequency.

A refinement of hierarchical system I deserves mention. This is the hierarchical system model II in Table 5. This variable configuration is a result of adopting a backward model selection procedure (Knoke and Burke, 1980:30-33) and is the most economical and parsimonious model. Other than improving the model from a methodological point of view, its implications are, however, not worth more than a short reference. The meanings of the three striking units variables, on the other hand, deserve elaboration. Are all these variables of the same type? Clearly not! The economic branch category is an immediate characteristic of the striking unit. As a matter of fact, it is one of the main economic characteristics of the striking UOA. The same cannot be said of the other two variables. The approval by an authorized union variable depicts a two sided relationship between a legally recognized representative union and one of its branches (in most cases, the workers' committee). A branch may exhibit some degree of autonomy; otherwise, no wildcat strike would ever occur. Still, this autonomy is limited; if this were not so, approval of a strike would have no meaning. The same can be stated about the ownership sector variable. This variable reflects a two-sided relationship, this time between the owners, or the superordinate management, and the local management. The owners of a unit nominate their delegates to the senior managerial positions. They can, still, fire them, or change their terms of authority. Management is nothing but an empty title if accorded no leeway, i.e., if it has no authority at its disposal. It ceases, however, to serve as management if it holds absolute authority. Both the owners of an enterprise and the superordinate union are actors in an IRS, if not that under immediate consideration, then another on a higher level. The representative union is an actor on the sectoral, economic branch, or national level IRS. The same holds true for the owners of an organization. Therefore, the conclusions of this analysis are not simply that the concept of an autonomous industrial relations system realistically describes the strike situation in Israel but that:

(a) striking units exhibit an autonomous, though not independent, UOA.

(b) the IRS's of the striking units are highly connected with the IRS's of their superordinate organizations.

(c) the highest superordinate UOA, i.e. the national level polity, serves as a significant constraint on the functioning of the IRS's of the striking units.

The first conclusion stems from the finding that variables 1, 2, and 3 crystallize as an interactive cluster and from the absence of a four or five degree interaction terms with variables 4 and 5.

The second conclusion derives from the fact that variables 1 and 2 describe not only features of the IRS of the striking unit, but its connections with a superordinate IRS.

The last conclusion is supported in the analysis by the existence of a separate interactive term of variables 4 and 5.

These conclusions indicate important policy-related implications. The identity of the ruling party, or for that matter, the concordance of party hegemony in the government and in the Histadrut, shape the level of strike activity in Israel. The impact of this concordance, or its absence, however, does not explain the high tendency of employees in publicly-owned and/or public utilities units to strike. This propensity stems from deficiencies in these segments of the economy. A reform in the public sector need not, and therefore should not, wait until a solution is found to the political problems of Israel. It can be approached independently.

A final word of caution should be added. Do our findings support a contention that the actors of the national IRS in Israel act in complete independence of political party considerations? Is the Histadrut, in particular, an organization whose acts are motivated solely by the interests of its members? Our findings tend to support this view. This conclusion is, however, a derivation from our data, and suffers, therefore, from its limitations. An important source for the independence finding is the behavior of the Histadrut prior to the 1981 elections. The small number of strikes at that period may be interpreted as evidence of the impartiality of the Histadrut leadership. A factor which should not be forgotten is the economic policy of the newly-appointed Finance Minister, Yoram Aridor. "In an unprecedented wave of tax cutting ... the new Finance Minister let loose a burst of pre-elections public and private spending" (Lehman-Wilzig, 1983:206). "One of his first programs upon taking office was to *reduce* (italics in the original) the purchase tax of imported items, noticeably color television sets. By the end of the month of February, it was announced that because of the lowering of the tax, more than 50,000 color sets had been sold (Haaretz, 27 February 1982). The tax had been lowered by only five percent but the subjective boost this gave to consumers was enormous" (Arian, 1983:2). This policy acted as a dismotivator for the workers to support any strike activity. And, without troops, how can war be conducted? ! In the future, only in "normal" election campaigns, marked by both a split in leadership between the government and the Histadrut and an undecided electorate, will the independence of the Histadrut be tested.

FOOTNOTES

[1] I would like to thank Mr. Y. Barzelai, head of the Institute for Economic and Social Research, for making Israeli strike data available for the present analysis, and Ms. R. Bar-tsuri for patient assistance and cooperation.

[2] A third event, the June 1967 Six Days War, is not covered by any of the time categories of this study. Therefore, no reference is made to it.

[3] Data for the pre-election period of 1983 are still unavailable for analysis.

[4] The choice of 100 days as a unit of standardization is only for clarity of report. Any other basis for standardization would have brought identical results in the log-linear analysis.

[5] The present paper does not deal with a second form of autonomy, the degree of independence of a given IRS from its environmental constraints. For a detailed treatment of this issue see Chermesh, 1982.

[6] Knesset members are elected for a four-year term. Even in a case where a Knesset does not complete its term, this fact is not known *a-priori.* Therefore, the two-year specification is an appropriate normal business reference point.

[7] I would like to thank Moshe Hartman for introducing me to the log-linear approach.

[8] A short technical explanation of Table 5 may be helpful for readers who are unfamiliar with the log-linear method: Each model in col. 1 of Table 5 is an hierarchical model. The term [123], for example, means the sum effects of variables 1, 2, and 3, the bivariate interactions of 12, 13, and 23, and the trivariate interaction term 123. A log linear model is tested by comparing expected and observed figures through a quasi chi square statistics. The critical test of a model is its ability to reconstruct a distribution *as similar as possible* to the observed distribution of observations. Therefore, *insignificant* results indicate the superiority of a model. In Table 5, the first two models should be rejected *because* of their significant results, while the last two models are supported on the basis of the *insignificant* results.

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