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comparative patterns of elite recruitment:

Israel, Egypt, Lebanon

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ABSTRACT

Part one of this paper is devoted to a general critique of elite studies. Attention is called to theoretical and methodological shortcomings, as well as to the paucity in comparative elite analysis which is thought of as the most promising avenue of development in elite theory. The paper then proceeds to study cross-nationally approximately 400 ministerial elites in Israel, Egypt, and Lebanon by the use of factor analytic and path analytic techniques. Specifically, two hypotheses have been tested comparatively: (1) Societal characteristics, values and aspirations tend to be reflected in recruitment patterns, thereby shaping the collective profile of the elite; and (2) Salient social background characteristics—of ministers—socializational and associational—influence tenure in cabinet office.

In hypothesis 2, tenure in high office is treated as the focal point of the elite circulation process. Tenure is conceived of as a dynamic and theoretically potent variable. It is posited that tenure in cabinet is influenced by psychological attributes of leaders, as well as by systemic and situational variables which include the associational determinants found in the social backgrounds of ministerial elites.

To test hypothesis 2, the tri-country recruitment data was used to develop causal models based on standardized regression coefficients. It was discovered that tenure was significantly (46%—57% influenced by social background characteristics in the three countries. The path models further suggested that longevity in high office may be more strongly influenced by a leader's associational affiliation (social background) rather than personal attributes.

A methodological discussion of the equivalence problem and suggestions for further comparative elite research conclude the paper.

More than a decade has elapsed since Harold Lasswell's «Agenda» and the study of political elites continues to display «intellectual vigor». ¹ Yet despite the great proliferation of elite studies in recent years, ² the Lasswellian observation that the field of elite studies lacks «intellectual unity» remains a fitting criticism. While Lasswell's early vision about the centrality of elites to the study of politics may have been overly optimistic, ³ leaders and leadership have returned to concern political scientists who, for a variety of reasons, ⁴ have been less than successful in developing elite theory. Indeed, it can be argued that elite studies have not registered theoretical and methodological advances comparable to other areas of political science. One plausible reason for the underdeveloped state of the field may be the paucity of comparative elite

1. Harold D. Lasswell, «Agenda for the Study of Political Elites», in Dwaine Marvick, ed., *Political Decision-Makers* (New York: Free Press, 1961), p. 264.

2. One recent compilation lists about 530 such studies, see William B. Quandt, *The Comparative Study of Political Elites* (Beverly Hills, California: Sage, 1970).

3. Lester G. Seligman, «The Study of Political Leadership», *American Political Science Review*, Vol. 44, No. 4 (Dec. 1950), pp. 904-15.

4. Perhaps the main reason is ideological. We like to think of ourselves as living in an egalitarian, pluralistic society where the distinction between elites and masses is thought to be blurred. This kind of thinking seems to have produced a relative decline of research on American elites. See, R. Hrair Dekmejian, *Patterns of Political Leadership: Egypt, Israel, Lebanon* (Albany: SUNY Press, 1975), pp. 1-2.

studies. A primary aim of this study is to suggest the potential of comparative elite analysis for theoretically and methodologically significant research in the field of political leadership.

the state of elite studies: a critique

A number of shortcomings become apparent when one reviews the literature on elites. The following factors, in combination, seem to have hampered the development of elite theory.

1. *Quantification vs. Theory.* A substantial portion of the published research on elites—particularly social background-circulation studies—is quantitatively based. But, as Rustow once suggested, many such studies are theoretically barren.⁵ Nor has the situation changed radically in recent years. Faced with the existing state of elite theory, or perhaps, lacking interest in theory, many scholars have plunged ahead with the arduous task of collecting and collating social background data, without the benefit of a theoretical structure of framework.

Quantification in elite studies needs little justification. Not only does quantitative data contribute to overall precision and elegance, but it also facilitates longitudinal and cross-national types of analyses of elite groups. Also a powerful case can be made for gathering quantitative data as an initial step in inductive analysis that would lead to the derivation of empirically sound theoretical insights. In practice however, the inductive road has not led to substantial theory-building in elite studies. Lastly, many quantitatively oriented researchers are area or country specialists whose aim is to present a collective profile of the political elite rather than attempt to derive theoretical insights on elite-system relationships. A common shortcoming in such cases is too narrow a focus on leaders and leadership which tends to be seen in isolation from the other components of the political system. This often leads to a static view of an elite aggregate, instead of the dynamic perspective that is necessary if one is to study the interaction between elite composition and system transformation.

2. *Methodological Problems.* Students of leadership also have been plagued by definitional questions; particularly acute is the perennial boundary problem—the determination of what constitutes an elite.⁶ Equally serious is the underdeveloped state of methodology in elite studies. It is surprising that many scholars who have

amassed social background data have gone no further than calculating simple correlations.⁷ Few have discerned, for example, the analytical power of systems theory, or logistic processes, or the usefulness of factor analysis, path analysis, and Markov chain probabilities, particularly in the study of recruitment paths and elite circulation in general.⁸

3. *Lack of Comparative Thrust.* Despite the relative abundance of studies on leadership, genuinely comparative analyses of leaders and leadership are incredibly few. This might well be the most important obstacle to the development of elite theory.

The scholarly literature on comparative elites may be categorized in several ways. One might distinguish single-leader comparative studies (e.g., Wolfenstein, Rustow, Merriam, Barber, Hargrove) from those comparing groups of elites (e.g., Lasswell, Deutsch) or those dealing analytically with the general field of leadership (e.g., Bottomore, Parry, Greenstein, Putnam). Alternatively, one might classify these studies by type of comparative framework: unified versus disparate. Significantly, only a handful of the existing comparative studies of leaders—either as individuals or as groups—possess unified, common theoretical-methodological frameworks⁹—a serious shortcoming from the point of view of comparability of data. The rest are edited collections of leader and country studies, either totally lacking an integrated single theoretical frame or possessing one that is too nebulous for comparative utility. While some of these anthologies are valuable in themselves as elite studies, their contribution to comparative elite analysis is limited. Thus, despite its perceived potential for the generation of elite theory, the comparative study of elites remains an uncharted area of research. It is significant, for example, that so few students¹⁰ of leadership have recognized the problem of equivalence in comparative elite analysis.

We shall not attempt to confront, much less resolve here, all of the complex problems of elite analysis iden-

7. Some exceptions are R.S. Robins, «Elite Career Patterns as a Differential in Regional Analysis: A Use of Correlation Techniques and the Construction of Uniform Strata», *Behavior Science*, Vol. 14 (May 1969), pp. 232-8; Carl Beck, «Leadership Attributes in Eastern Europe: The Effect of Country and Time», and M. George Zaninovich, «Elites and Citizenry in Yugoslav Society: A Study in Value Differentiation», in Carl Beck et al., *Comparative Communist Political Leadership* (New York: David McKay, 1973), pp. 86-153 and 226-297 respectively.

8. See R.H. Dekmejian, «Elite Recruitment, Markov Chains, and Path Analysis: Israel, Egypt and Lebanon», paper delivered at the 70th Annual Meeting of the American Political Science Association, Chicago, Illinois, 28 August-2 September 1974. Also see K.I.S. Koutsoukis, «Elites and Society in Modern Greece: Cabinet Circulation and Systemic Change: 1946-1974. Unpublished Ph. D. Dissertation, St. University of New York, at Binghamton, 1976.

9. These include studies by J.D. Barber, Wolfenstein, C. Merriam, Hargrove, Lasswell and Lerner, and Eulau et al.

10. Marvick, *Political Decision-Makers*, pp. 18-20; Dekmejian, *Patterns...*, pp. 2-9.

5. Dankwart A. Rustow, «Who's Who, When and How», *World Politics*, Vol. 18, No. 4 (1966) p. 716.

6. Frederick W. Frey, «The Determination and Location of Elites: A Critical Analysis», paper delivered at 66th Annual Meeting of the American Political Science Association, Los Angeles, California, 8-12 September 1970. Also, William I. Zartman, «The Study of Elite Circulation», *Comparative Politics*, Vol. 7, No. 3 (April 1974), pp. 466-70; and Dekmejian, *Patterns of Political Leadership*, pp. 3-7.

tified above. However, the analysis that is to follow will involve some of the conceptual and methodological tasks associated with cross-national elite studies, particularly theory-building, equivalence, and statistical applications. Our specific purpose is to examine comparatively patterns of social background characteristics of cabinet-level elites in three Middle Eastern polities—Israel, Egypt, and Lebanon. We further plan to search for possible relationships among salient social background variables, system-specific priorities and length in tenure in cabinet positions.

Theoretical Underpinnings

We begin at the level of meta-theory by reiterating the view held by various students of leadership that the elite is a reflection of society.¹¹ For example, Gaetano Mosca maintained that the composition of the elite reflected the balance of social forces in a given society.¹² Lasswell was even more specific in his restatement of the famous Marxian hypothesis, i.e., a positive relationship exists between the position of a group in the production process and its position in the political process.¹³ It is also possible to deviate from the causal direction of economic determinism and theorize that both in composition and performance the elite mirrors the configuration of social forces given a certain time lag for adjustments to take place as changes in social forces change the elite and/or vice versa. Implicit is a close relationship between elite recruitment and social change, or as Seligman states, «recruitment patterns both reflect and affect society».¹⁴ Clearly, recruitment patterns (i.e., elite composition), become a dependent variable reflective of a society's political culture, social forces, and values. But also recruitment, treated as an independent variable, can influence systemic stability.¹⁵

To be able to formulate a more specific hypothesis, the themes of elite legitimacy and representation need to be introduced when considering recruitment patterns. One may begin with the assumption that regardless of system type most ruling elites are interested in maximizing their own legitimacy and the overall legitimacy of the political-social system they represent. According to Dahl, elites seek to convert rule by naked force to authority—which is legitimate—

because this type of rule is more reliable, durable, and efficient.¹⁶

The specific methods or strategies that elites use to legitimize themselves are various depending on the imperatives of their respective socio-political milieu. If one were to use Weber's trilogy of «ideal» authority types, the quest for legitimacy could be perceived as the process by which particular elites strive to create a congruence and identification between themselves and the system. However, a distinction needs to be made between Weber's traditional and rational-legal types, and charismatic authority. Both traditional and rational-legal type authority environments usually imply stable situations where patterns of elite recruitment are substantially institutionalized. In such societies recruitment patterns (i.e., elite composition) will tend to reflect the prevailing values, mores and goals which are either hallowed through tradition and/or are legally instituted through routinized rational processes.¹⁷ It follows that newly-recruited elites in these two types of social setting already possess initial legitimacy bestowed upon them by the accepted or institutionalized process of recruitment through which they came to the top. Therefore, their quest for continued legitimacy would involve identification with and pursuit of the prevailing values and goals of their respective societies. In sharp contrast is the revolutionary milieu associated with charismatic authority where the leader is committed to the destruction of the status quo, i.e., traditional and/or rational-legal authority. Thus, the leader's quest for legitimacy involves charisma—his ability to establish an intense spiritual bond with his followers by the effective propagation of a chiliastic message accompanied by his order-destroying and order-creating capabilities.¹⁸ In charismatic environments the leader and the elite contingent around him will legitimize their initial recruitment by charisma and continue to justify the emerging patterns of recruitment, i.e., elite composition, in terms of the new ideological goals of the revolution as propounded by the charismatic's message.

The foregoing discussion suggests the following hypothesis:

1. *Societal characteristics, values, and aspirations tend to be reflected in recruitment patterns, thereby shaping the collective profile of the elite*

In order to test this hypothesis, it will first be necessary to sketch briefly the social-political environments in

11. Geraint Parry, *Political Elites* (New York: Frederick A. Praeger, 1969), p. 102. Also, W.L. Guttsman, *The British Political Elite* (London: MacGibbon and Kee, 1963), p. 32.

12. Parry, *Political Elites*, p. 59.

13. Lasswell, «Agenda...», p. 276.

14. Lester G. Seligman, «Elite Recruitment and Political Development», *Journal of Politics*, Vol. 26, No. 3 (August 1964), pp. 612-13. For a comparative analytical study of elite transformation in selected post-industrial societies, see Robert D. Putnam, *The Comparative Study of Elites* (forthcoming), Chapter 8.

15. *Ibid.* and Quandt, *The Comparative Study...*, pp. 195-7.

16. Robert A. Dahl, *Modern Political Analysis* (Englewood Cliffs: Prentice-Hall, 1963), p. 19.

17. For some reflections of this in the Greek political context see, K.I.S. Koutsoukis, «Socioeconomic Change and Cabinet Composition in Greece: 1946-1974», in *The Greek Review of Social Research*, No. 32 (January-April 1978), pp. 76-79.

18. Edward Shils, «Charisma, Order and Status», *American Sociological Review*, Vol. 30 (April 1965), p. 204.

Israel, Egypt, and Lebanon to identify major societal values, concerns and priorities. These will then be compared with clusters of elite background characteristics to discern the degree of correspondence, if any, between them.

Israel: A Garrison Democracy

There is no more fitting description of Israel than J.C. Hurewitz's appellation of the Jewish state—«a garrison democracy».¹⁹ In order to identify the socialization and motivational sources of Israeli behavior, several basic historical determinants need to be mentioned.²⁰

Israel is a new state with an old people. Israel's experience in nation-building is unique since it had long preceded the settlement of the land. Here was a nation looking for a land to build a state. The quest for territory—the return to Zion—had been prompted by heightened persecution of European Jews, particularly in the Tzarist Empire. The Zionist solution to the Jewish condition of permanent insecurity was the establishment of a Jewish political entity in Palestine. Yet even the founding of the state in 1948 was not sufficient to fulfill the Zionist promise; Jewish insecurity persisted because the Arab's rejection of Israel had the effect of transforming the new state into a Middle Eastern ghetto. In perceptual terms, the Jews' collective historical memory of persecution and massacre was reinforced by Arab «encirclement» and persistent threats; hence the Israeli obsession with survival and defense.

The foregoing description of Israel's developmental milieu suggests yet another priority: the need for aliya—Jewish settlement of Palestine. Indeed, as a settler state and society, continued immigration was imperative for survival. In order to maximize immigration to build a new state it was necessary to develop a nationalist ideology that would include a settlers' or pioneers' mystique, a devotion to working the land and a hard-boiled, defiant and proud activism—all symbolized by the kibbutz. These values were brought together in a «beginning of ideology» framework, strongly collectivist and socialist, but tempered with Judaism and Western democratic ideals.

The tasks of nation-building—immigration, settlement, and defense—required organization and leadership cadres. The bureaucratic apparatus that developed under Ben Gurion in Mandatory Palestine had to confront the burdens of ruling a state after May 1948.

What followed has been aptly described as «forced» or «pressure cooker» development,²¹ to build a viable and strong state in the shortest possible time; this despite the uncertainties of coalition politics exacerbated by a multi-party system and an electorate which has persistently denied a parliamentary (knesset) majority to any of the main parties. Thus, inter-party relations are of primary interest in forming viable cabinet coalitions. Here emerges the pivotal role of rabbi-ministers, most of whom exercise great influence on government policies and cabinet stability as the heads of the religious parties in Israel's ruling coalitions.

Egypt: Charisma and Praetorianism

The formative event in the national experience of today's Egyptians is the July 1952 Revolution which began as a coup by young military officers. Despite its manifest authoritarianism, the revolutionary regime under Nasir succeeded in gathering substantial legitimacy by pursuing policies which corresponded to the psychological and political needs and expectations of the Arab masses, in and out of Egypt. In summary form, the main sources of legitimacy for the Nasirite revolution were its indigeneness, and its commitment to nationalism and socio-economic development.

The overthrow of the Turkish-Albanian monarchy in 1952 symbolized the end of a long period of servitude under many non-Egyptian rulers. The Nasirite military elite was the first ethnically Egyptian group to rule Egypt since the last pharaoh.²²

While the military takeover fulfilled the millennial quest of Egyptians to be governed by their own kind, two major obstacles remained in the way of stable national development: the British presence and Israel's existence. The British had entered Egypt in 1882 and showed no signs of departing. As to Israel, the Egyptians regarded it as a creation of Western imperialism for the purpose of dominating the Arab world. After the Egyptian defeat in 1948, Israel began to be perceived as a major threat to Egypt's security. Essentially both the British and Israeli problems involved Egyptian national pride and security—two primary concerns of the military regime. Nasir's response to these deeply felt popular needs included defiance of the West, mixed with skillful diplomacy aimed at British departure, acquisition of modern weapons from the USSR which had been denied to him by the West, and the creation of a Pan-Arab movement aimed at Israel and the two superpowers. By the late fifties Nasir's bold actions had been instrumental in making him a charismatic hero in the eyes of Arab masses despite another defeat

19. See J.C. Hurewitz, *Middle East Politics: The Military Dimension* (New York: Frederick A. Praeger, 1969), p. 357.

20. See R. H. Dekmejian and M. J. Wyszomirski, «Strategic Perceptions and the Arab-Israeli Conflict», paper presented at the Middle East Studies Association Conference, Boston, Mass., 6-9 November 1974.

21. Benjamin Akzin and Hehezkel Dror, *Israel: High-Pressure Planning* (Syracuse: Syracuse University Press, 1966).

22. Dekmejian, *Patterns...*, p. 170.

by Israel and the Anglo-French invasion of the Suez Canal in 1956.²³

Another source of legitimacy was the military's early commitment to socio-economic reform and comprehensive development to achieve a modicum of social justice. The agrarian reform laws of 1952 and 1961 were intended to make landless peasants small landowners. A massive higher education system was created by the Revolution to keep pace with the country's modernization. After 1961 Nasir began a new phase of accelerated development under the ideological rubric of Arab Socialism—what one might call the «routinization of charisma» in Weberian terminology. The specific measures were etatistic—virtually all large and medium size enterprises were nationalized and brought under the control of a large body of bureaucrats and technocrats many of whom were the products of Egypt's newly-expanded university system. These steps, coupled with the redistribution of large landholdings, had the effect of liquidating the small capitalist and feudalist groups and pushing wealth downward to the growing middle and lower middle classes.²⁴

Lebanon: A Sectarian Democracy

In sharp contrast to Israel and Egypt, Lebanon's is an «end of ideology» political culture. Lebanon emerged from French imperial rule (1945) as a thoroughly capitalistic, heterogeneous, and pluralistic democracy. Like Israel, Lebanon is a substantially urbanized society with a high rate of literacy. Yet for the Lebanese, economic development is not synonymous with large-scale industrialization but with the maintenance of a highly modernized service-oriented economy of commerce, finance, and tourism, in addition to small industry and agriculture. The entrepreneurial-financial dimension increased substantially after the advent of large-scale oil production in the Arab countries.

The most important systemic feature besides the entrepreneurial milieu, is sectarianism, i.e., the Lebanese political system is based on a unique confessional balance that makes it possible for the country's seven main sects and ethnic groups to come together to run the governmental structure. Thus, the proportional representation of each of the seven culturally autonomous minorities in government constitutes the linch-pin of the system. In some fundamental ways the Lebanese confessional system resembles what Lipjhart has called «consoci-

tional democracy».²⁵ In the Lebanese case, however, the consociational system possesses a peculiar elite type—the za'im (pl. zu'ama')—who is recruited from various sects through the electoral process.²⁶ The zu'ama' are traditional type leaders who usually come to exercise influence over a client group centered in one geographical area by virtue of family prestige, wealth, and/or ability to protect and promote the client's interest—the latter resembling the «fix it» functions of the American urban political boss.²⁷ Therefore the inter- and intra-sectarian elite competition for political power at the top takes place between the various zu'ama', the relative power of which is subject to considerable fluctuation, partly depending on the outcome of electoral contests.

This unique system of multi-sectarian equilibrium has proved workable when left alone. When faced with external threat or intervention, however, the system tends to breakdown as in the case of the Syrian involvement in Lebanon's 1958 crisis and the protracted Palestinian-Israeli armed confrontation since the June 1967 War. Yet it is significant that Lebanon continues to maintain one of the world's smallest armies (10,000 men), its confessional internal structure remains intact, and the entrepreneur's pragmatism remains the order of the day.

units of analysis and data collection

It should be noted that our first hypothesis was stated in general terms, i.e., it referred to the collective profile of the elite but did not specify the boundaries of the elite. Without belaboring the perennial methodological question of what is an elite, we have determined, on the basis of area expertise, that in the three political systems under study the cabinet provides a convenient and manageable unit of cross-national analysis. The cabinet elite was chosen because it meets the following criteria of nominal, structural, and functional equivalence:²⁸

1. The possession of a disproportionate amount of political power relative to all other groups and individuals in society.
2. The sharing of a private political culture, distinct from the mass culture, in which the leaders have more in common with each other than with their constituents.
3. The possession of significant mutual ties—economic, political, matrimonial, familial, socializational—all of which bring together the elite in a network

sociational Democracy Theme», *World Politics*, Vol. 26 (July 1974), pp. 604-21.

26. On the zu'ama' see, Arnold Hottinger, «Zu'ama' in Historical Perspective», in *Politics in Lebanon*, edited by Leonard Binder (New York: John Wiley and Sons, 1966), pp. 86-105.

27. Fred I. Greenstein, *The American Party System and the American People* (Englewood Cliffs: Prentice-Hall, 1963), pp. 38-53.

28. Dekmejian, *Patterns...*, pp. 3-4.

23. R. Hrair Dekmejian, *Egypt Under Nasir: A Study in Political Dynamics* (Albany: SUNY Press, 1971) and London: University of London Press, 1972), pp. 40-63, 225-51.

24. *Ibid.*, pp. 119-43, 244-85.

25. Arend Lipjhart, «Consociational Democracy», *World Politics*, Vol. 21 (January 1969), pp. 207, 225 and Hans Daalder, «The Con-

of interrelations uncharacteristic of most members of society.

4. The possession of a self-view which emphasizes the uniqueness, exclusiveness, and political centrality of the group, i.e., the self-view of the group that it is an elite.
5. The existence of a widespread popular view that the group is an elite.

Data was collected on a number of social background characteristics for about 400 cabinet ministers—64 Israelis, 186 Egyptians, and 159 Lebanese—who served during roughly parallel periods of time from the forties to the early seventies.²⁹ These ministerial elites served in 17 Israeli (1948-1973), 23 Egyptian (1952-1973), and 45 Lebanese (1943-1972) cabinets. It should be emphasized that our data only consists of social background variables and therefore our findings should be considered no more than partial explorations of aspects of elite recruitment and circulation. For a more comprehensive study one needs to generate additional data, particularly on attitudinal and social-psychological variables. The present study was limited to social background data because these were more readily available and easily quantifiable.

Identification of Patterns: Factor Analysis

In the descriptive part of hypothesis 1, it was predicted that societal goals and aspirations would be reflected, at least to an extent, in the background profile of a country's top leadership i.e., the cabinet in the present context. To ascertain this, factor analysis is considered an appropriate technique since it will help discern patterns or clusters of interrelated variables.³⁰ Thus, interrelated elite background characteristics are expected to be loaded on the same factor. Actually, these cluster-factors are reductions of a large number of social background variables, which constitute our raw data.

The 8MD x72 factor analysis technique was utilized with an oblique rotation which gives better clustering of variables.³¹ In addition oblique rotation was thought to be more appropriate because we assumed that background characteristics would have high inter-correlations. However, of the three countries, Lebanon had factor correlations of $r < .20$, while Egypt and Israel were higher at $r < .30$. In retrospect it may be assumed that the factors tended to be orthogonal rather than oblique.

In the oblique rotation using Kaiser's criterion (Eigen value 1.0), one has the benefit of getting as few

factors as 1/6 or 1/3 of the original number of variables. Rotations were repeated to keep factors at more than 3% of the total variance. This obviously minimized some of the communalities in favor of fewer factors.³²

ISRAEL

Religious Orientation. The first pattern reveals a cluster of interrelated variables with a dominant religious character (see Table 1). This is because a large minority (22%) of the Israeli cabinet elite possess religious educational specialization ($-.75$) as well as rabbinical training ($-.89$), and occupation ($-.89$). Pattern I is significant not only because it underlines the considerable clerical presence in the cabinet, but also because this pattern explicates the correlation between rabbinical ministerial backgrounds and their affiliation with the National Religious Party ($-.76$). Indeed, these rabbiministers are the leaders of the religious parties whose presence in the cabinet has been so often crucial to maintain the Mapai-led coalition in power.³³

Specialization. Patterns II, III, IV, V, VI can be labelled specialization, although each represents a different aspect. Pattern II shows a clear contrast between specialists and generalists. Specialists are those whose educational specialization fits their ministerial posts (.83); the generalists are those who hold ministerial posts unrelated ($-.88$) to their educational training.³⁴ Another high loading in this pattern is that of Historian-Humanist (.76), perhaps indicating the flexibility of a very general field in fitting cabinet posts. In Pattern III, occupational specialization is emphasized by high loadings on Master's degrees ($-.89$) and business ($-.97$). Members of the General Zionist/Liberal Party, known to be highly educated and business-oriented, have a high correlation ($-.81$), with the pattern. In contrast is the positive loading for ministers born in the Tzarist Empire (.52) who were known to have a strong socialistic orientation.³⁵ In Pattern IV the fields of law (.85) and law-religion (.92) receive high loadings and journalism loads moderately (.51)—all indicating ministerial educational specializations. Pattern V shows clusters of mostly occupational specializations, with lawyers ($-.62$), engineers ($-.62$) and engineering ($-.70$)

32. Samuel A. Kirkpatrick, *Quantitative Analysis of Political Data* (Columbus: Charles E. Merrill Publ. Co., 1974), p. 250.

33. See, Norman L. Zucker, *The Coming Crisis in Israel* (Boston: MIT Press, 1973), pp. 43-59 and 222-25, and Leonard J. Fein, *Politics in Israel* (Boston: Little, Brown, 1967), pp. 173-80.

34. For example, a law specialization is considered «unrelated» to a cabinet post requiring technical expertise, e.g., Economy, Agriculture, Health. In contrast, law is considered as «related» to the Ministry of Justice.

35. Alan Arian, *Ideological Change in Israel* (Cleveland: The Press of Case Western Reserve University, 1968), p. 59.

29. *Ibid.* and throughout the book.

30. R.J. Rummel, «Understanding Factor Analysis», *Journal of Conflict Resolution*, Vol. 11 (1967), pp. 444-46.

31. W. J. Dixon, ed., *Biomedical Computer Programs, X-Series Supplement* (Berkeley: University of California Press, 1972), pp. 90-6.

TABLE 1. *Israel - Rotated Factor Matrix**

Variable	I	II	III	IV	V	VI	VII	VIII	Communality
1. Age	.42	.11	-.01	-.10	(.64)	.06	.13	-.04	.72
2. Age (Key Ministers)	.18	-.04	.00	.13	.47	.03	(-.62)	.05	.77
3. No Degree	.43	-.24	.23	-.00	.16	.32	.09	-.37	.98
4. Bachelor's Degree	-.21	.14	.16	.19	-.13	(-.75)	-.13	.28	.98
5. Master's Degree	.05	-.04	(-.89)	.01	-.21	.01	.10	.04	.97
6. Doctorate	-.31	.12	.03	-.32	.15	(.89)	.04	.08	.96
7. Rabbinic Degree	(-.89)	-.00	.08	.11	-.18	.27	-.02	.11	.92
8. Related	-.20	(.83)	.03	-.02	.07	.06	-.09	.28	.94
9. Unrelated	.19	(-.88)	.21	-.23	-.09	-.31	.02	.14	.97
10. Worker/Farmer	.28	-.36	.39	.11	.41	-.26	-.21	-.18	.96
11. Rabbi	(-.89)	.10	.00	-.05	-.04	-.09	.06	.07	.95
12. Lawyer	.32	-.03	-.25	-.13	(-.62)	-.02	-.08	(.60)	.97
13. Zionist Bureaucrat	-.04	.10	.20	-.15	-.10	-.03	(-.89)	.01	.86
14. Hagana	.10	.10	.16	-.06	-.00	(.76)	.06	-.32	.93
15. Businessman	.00	-.03	(-.97)	-.03	.11	-.14	.09	-.15	.96
16. Engineer	-.21	.15	-.23	.13	(-.62)	-.35	.13	-.06	.98
17. Journalist	.24	.49	.41	(.51)	.04	.12	.38	.02	.97
18. Academician	.15	.04	.37	.03	.05	(.75)	-.10	-.03	.96
19. Religious Studies	(-.75)	.17	-.13	-.06	-.09	-.30	-.12	-.01	.95
20. Law/Religion	-.24	.07	-.04	(.92)	.08	-.13	.10	-.08	.97
21. Law	.07	.00	-.18	(.85)	-.17	-.29	-.07	.12	.96
22. Engineering	-.08	.14	-.19	-.35	(-.70)	-.26	.10	.03	.97
23. Social Studies	.02	.12	.06	-.39	-.06	.07	(.51)	(.64)	.91
24. Military Science	.03	.21	.05	-.11	.05	(.60)	-.35	-.46	.88
25. History/Philosophy	.26	(.76)	.27	-.19	-.19	(-.55)	.04	-.09	.94
26. Oriental Studies	.15	.04	.37	.03	.05	(.75)	-.10	-.03	.96
27. Economics/Business	-.24	-.27	-.41	-.35	.46	-.47	-.01	-.12	.90
28. Agriculture	.25	-.04	-.00	-.18	(.77)	-.03	-.08	.28	.83
29. No Specialization	.43	-.24	.19	-.02	.13	.33	.07	-.41	.97
30. Mapai	-.16	.22	.11	-.36	.15	-.13	-.05	(.76)	.97
31. Mapam	.26	-.35	.43	.22	.21	.13	-.08	-.35	.97
32. National Religious Party	(-.76)	.14	.36	.10	-.23	-.11	.14	-.03	.94
33. General Zionist/Liberal	.30	.03	(-.81)	.32	-.11	-.01	.08	.01	.90
34. Gahal	.16	.01	-.15	-.25	-.26	.15	-.00	(-.82)	.84
35. Tzarist Empire	-.06	-.08	(.52)	-.14	.25	-.49	.24	(-.51)	.96
36. West Europe	.30	.04	-.35	*.15	-.19	-.13	-.20	(.53)	.94
37. Middle East/other	.43	.05	-.15	-.03	-.02	(.73)	-.02	-.09	.90
Percent of Total Variance	36	15	12	9	7	7	6	3.5	93.5 Total

* Loadings with value .50 and higher are placed in brackets.

having negative correlations with the pattern, and agriculturalists (.77) who have a positive loading. One may observe that lawyers and engineers possessed high levels of formal education and professionalism unlike the agriculturalists who, history tells us, were none other than the early pioneering Zionist settlers of Palestine who mostly lacked college education. Here the pattern may suggest a conflictual delineation between professionalist-expertise and practical-expertise. Finally, in Pattern VI educational level occurs with occupation: BA's (-.75) opposed to Ph.D.'s (.89) and academia (.75). Also a number of ministerial occupational sources of recruitment are apparent—Haganah (.76), military (.60), and Orientalists (.75).³⁶

Bureaucratic Careerism. The high loadings in Pattern VII on the categories of Zionist bureaucrat (-.89) and

age of key ministers (-.62) project a basic reality in Israeli politics which held true as late as 1974. This refers to the powerful bureaucratic elites around Ben Gurion who entered the Yishuv's bureaucratic apparatus during the inter-war years and emerged as key ministers after Israel's independence; a significant number of them aged in office.³⁷

Party Affiliation. The main feature of Pattern VIII is the Mapai (.76) vs. Gahal (-.82) competition which symbolized the conflict between the leading «in» party and the main «out» party. This pattern also indicates that party affiliation may be related to occupational positions (lawyer .60; social scientist .64). Another dichotomy that can be detected is a Western European (.53) vs. Tzarist Empire (-.51) line-up.

36. The high positive loading on Middle Eastern-born ministers could not be explained.

37. The positive loading on Social Scientists can be explained when contrasted with the low level of education of most aging Zionist bureaucrats.

Overall, it seems that the factor analysis of the Israeli data has provided some patterns which reflect dominant concerns, values, and orientations in Israeli society. One outstanding pattern is the presence of the religious leaders in coalition governments run by Ben Gurionite bureaucrats who had settled the land as Zionist activists. The concern with security is symbolized by Hagana and military components; similarly, developmental concerns are reflected in the ministers' specialization patterns.

EGYPT

Specialization. The most pronounced patterns in Egyptian social background variables (see Table 2) are specialization, political generation cohorts, religion, and level of education. The first pattern (I) includes a cluster of variables indicative of various occupational and educational sources of recruitment—bureaucrat (.65), business (.76), diplomat (.87), economics (.84), social science (— .78), military men (— .52), and civilians (.52). These findings clearly show the civilian vs. military cleavage.³⁸ Under Patterns V and VI one can also discern high loadings on variables indicating specializations in technical professions—engineering (.93),

technology (.84), and physicians (— .89). These specialization categories are reflective of the accelerated development triggered by the 1952 Revolution.

Generational Cohorts. Pattern II reveals a cluster of variables with age being the most distinctive (— .96). The remaining highly and moderately loaded variables may be interpreted thusly. Academics (— .62) is a highly educated category and it has a negative correlation with the pattern, as does age (— .96). In addition, the correlation between academics and age is .63 or a common variance of 40%. Therefore academics can be regarded as an older cohort vis a vis Master's holders (.65), businessmen (.58), «related» (.63) and «unrelated» (.87) which may be seen as younger and less educated cohorts. Since we know that the MA and the «unrelated» groups mostly consist of officers,³⁹ Pattern II may be interpreted as consisting of two generational cohorts of generally older academicians vis a vis younger military officers.

Religion. Pattern III reveals another salient aspect of revolutionary Egypt—religious affiliation. Thus, Muslims and Copts load highly in opposite directions. In addition, the «related» variable (— .52) with which the Coptic group shows 38% variance, indicates a greater correspondence between the Copts' educational specializations and cabinet posts.

38. Dekmejian, *Patterns...*, pp. 185-92.

39. Dekmejian, *Egypt Under Nasir...*, p. 185.

TABLE 2: Egypt - Rotated Factor Matrix*

Variable	I	II	III	IV	V	VI	Communality
1. Age	.09	(— .96)	— .11	.31	.16	.00	.95
2. Officer Technocrat	— .26	— .37	.01	(.69)	.11	— .05	.80
3. Military Officer	(— .52)	.32	.10	.39	.20	— .20	.98
4. Civilian	(.52)	— .32	— .10	— .38	— .20	.20	.98
5. Muslim	.08	.05	(1.01)	— .02	— .00	— .01	.97
6. Copt	— .07	— .03	(— 1.00)	.01	.02	.01	.98
7. Law	.30	— .01	— .19	(— .61)	— .28	— .30	.88
8. Medicine	— .06	— .06	.28	.01	(— .89)	.05	.84
9. Social Science	(— .78)	— .09	.05	— .00	— .15	.42	.76
10. Technology	.00	.04	— .09	.03	.08	(.93)	.86
11. Economics	(.84)	— .04	— .00	.01	— .09	(.09)	.80
12. Bachelor's Degree	.30	— .06	— .19	(.83)	— .31	— .00	.78
13. Master's Degree	— .47	(— .65)	.01	.17	— .03	— .29	.96
14. Doctorate	.04	— .31	— .06	(— .55)	— .28	.38	.90
15. Related	— .01	(.63)	(— .52)	.05	.10	.42	.89
16. Unrelated	.08	(.87)	— .16	— .00	.09	— .12	.91
17. Military	— .49	.29	.12	.38	.27	— .21	.98
18. Bureaucrat	(.65)	— .44	— .12	— .21	.00	.08	.86
19. Businessman	(.76)	(.58)	.06	.18	— .06	.16	.85
20. Lawyer	.43	.27	— .22	(— .52)	— .27	— .17	.96
21. Academician	— .07	(— .62)	.19	— .07	— .11	.46	.84
22. Diplomat	(.87)	— .09	.09	— .01	— .14	— .02	.86
23. Engineer	.01	— .19	.24	— .12	(.84)	.13	.81
Percent of Total Variance	37	21	11	9	6	5	89 Total

* Loadings with value .50 and higher are placed in brackets.

Education: Level and Type. Pattern IV brings together a number of variables indicative of a contrast between high and low education: BA's (.83) and Ph.D.'s (-.55). Also this pattern reveals an important contrast in educational specialization: officer-technocrats (.69) vs. lawyers (-.61). This indicates a declining importance of the legal profession in Egypt and its replacement by military technocrats recruited from the Army.

In summary, the factor analysis of Egyptian ministerial cohorts, produced several main patterns. Specialization, generational elites, religion and education. A number of these patterns show considerable correspondence with hypothesis 1 and its descriptive characteristics for the Nasirite political system. More specifically, the specialization and education patterns reflect the developmental goals of the Egyptian revolution as promulgated by Nasir and his successors. Here also one discerns the military vs. civilian dimension in Egyptian politics, which is further revealed in the generational cohort pattern. The presence of the military shows the security concerns of Egypt against Israel as well as the ideological priorities of an authoritarian revolutionary milieu.

LEBANON

Sectarianism. The first factor discerns a cluster of variables indicating the confessional affiliation of Lebanese ministers. It also manifests the intra-and inter-sectarian competition that is a main feature of Lebanese political life. Thus, the country's largest seven sects compete for cabinet posts according to preset constitutional formulas. Under this system the four Christian sects—Maronites, Orthodox, Catholics, Armenians—occupy half of the cabinet seats, while the Muslim sects—Sunnis, Shi'ites, Druzes—are given the rest, except in times of crisis when the formula is modified. More importantly, there is intense competition among the sects within the Christian and Muslim rubrics. These can be observed in a number of patterns. In Pattern I, two Christian sects (Maronites = -.88; Catholics = .67) and two Muslim sects (Sunnis = -.94; Shi'ites = .70) are highly loaded; and in terms of polarities one may note the competition between them. In Pattern VII, Orthodox Christians (.85) and Muslim Druzes (.88) both are correlated positively, which may indicate an absence of excessive competition among

TABLE 3: *Lebanon: Rotated Factor Matrix**

Variable	I	II	III	IV	V	VI	VII	VIII	IX	Communality
1. Age	(-.58)	.23	-.00	.22	-.07	-.17	-.04	-.43	.18	.71
2. No College	(.51)	-.01	.05	(.62)	-.21	.39	-.14	-.18	-.18	.85
3. Associate Degree	-.22	-.12	-.14	.01	(-.79)	-.19	-.03	.09	-.11	.85
4. Bachelor/Licensate	.20	.22	.20	(-.76)	-.01	.08	.03	-.16	.11	.85
5. Masters/Certificate	-.21	-.31	-.11	.32	(.58)	-.24	-.10	-.00	-.08	.69
6. Doctorate	-.09	.21	.09	(.53)	.20	-.24	.24	-.20	-.14	.68
7. Law	-.13	-.19	.30	(-.75)	.20	.05	.03	-.19	-.05	.84
8. Social Science	.04	-.03	-.07	.05	(.63)	.09	.08	(.66)	-.25	.92
9. Medicine	-.16	.07	.28	(.86)	.13	.15	.13	-.03	-.01	.90
10. Engineering	-.04	(.79)	-.31	-.00	.12	.02	.00	-.05	.06	.78
11. Military Science	.07	(-.61)	-.34	.01	.10	-.37	-.11	-.26	.35	.82
12. Humanities	.22	.02	.09	-.08	-.10	(-.87)	.01	.04	-.04	.78
13. No Specialization	-.02	-.26	-.02	.15	(-.85)	-.03	-.05	.02	-.04	.90
14. Maronite	(-.88)	-.01	.04	.06	-.02	.16	-.09	-.02	.16	.87
15. Sunni	(-.94)	.02	.02	.03	.04	.06	-.06	.02	.12	.94
16. Shi'ite	(.70)	.11	.00	-.00	.14	-.02	.04	-.23	-.28	.79
17. Orthodox	-.05	-.21	-.39	-.03	-.10	.02	(.85)	.11	.04	.95
18. Catholic	(.67)	.21	.37	.02	.16	-.13	.18	-.06	.16	.83
19. Druze	.22	.03	.15	.12	.03	-.04	(.88)	-.07	.05	.93
20. Armenian	.17	-.03	-.04	.04	-.05	-.06	-.08	-.04	(-.88)	.84
21. Assembly	.31	-.19	(.74)	-.07	.00	.06	-.16	.06	-.18	.91
22. No Assembly	-.32	.19	(-.74)	.07	-.01	-.06	.16	-.07	.18	.91
23. Za'imism, Level 0	.01	-.22	(-.67)	.09	-.14	-.01	-.04	.26	-.09	.68
24. Za'imism, Level 1	.16	(.68)	-.18	.20	.21	-.26	-.10	.03	.13	.78
25. Za'imism, Level 2	.20	-.24	-.13	-.18	.23	.35	.12	(.67)	-.21	.88
26. Za'imism, Level 3	-.19	-.22	(.91)	.08	-.05	-.09	.04	.10	.09	.87
Percent of Total Variance	22	15	10	9	7	6	6	5	4	84 Total

* Loadings with value .50 and higher are placed in brackets.

these sects. In Pattern IX, the smallest of the seven sects—the Christian Armenians—load negatively (–.88). Because of the very high loadings for the sects in Patterns I, VII, and IX, these may be labelled «sectarianism» (see Table 3).

Za'imism. In attempting to label Patterns II, III, VIII, the unique variant of personal leadership in Lebanon—za'imism—becomes manifest; indeed it appears highly loaded in all three patterns. In Pattern III, the interrelated variables with high loadings are high za'imism (.91) and Assembly membership (.74) as opposed to no za'imism (–.67) and no Assembly membership (–.74). This pattern may give insight into another reality of Lebanese politics—the inter-correlation between strength of a za'im and membership in the legislature. It seems that Assembly membership may contribute to strengthening za'imist power and vice versa—a strong za'im may find it easier to gain election into the Assembly. Significantly, the correlation matrix indicates that za'imism and Assembly membership share a high variance (40%) in contrast to no za'imism and Assembly membership which share a relatively low variance (19%).

In Pattern II, engineering (.79) is positively loaded with a low-level za'imism (.68), in contrast to the military which is negatively loaded (–.61). This means that an engineering specialization is not common among prominent za'ims, most of whom had a generally low-level of education. In Pattern VIII, middle-level za'imism (.67) and social science specialization (.66) are positively related to the pattern indicating that za'imism is higher among social scientists than among engineers. *Educational Level and Specialization.* Three patterns can be subsumed under this broad category. In Pattern IV, several variables are clustered indicating levels of education: those with a Bachelor's level education (–.76), including law degrees (–.75), are negatively related to this pattern, while the no college category (.62) and Ph.D.'s (.53) and MD's (.86) are positively related. The two extremes—doctorates and no college—are often displaced by the influx of BA-holding ministers, particularly lawyers. In Pattern V, one finds the specialization dimension more pronounced than educational level. Thus, the no specialization variable (–.85) and the Associate degree level (–.79) (which also denotes a lack of specialization in the first two years of college), are negatively related to the pattern as opposed to social scientists (.63) and MA's (.58) which denote high levels of specialization. Finally, in Pattern VI, the high loading on humanists (–.87) also denotes a high level of education and specialization.

In summary, the factor analysis of the background characteristics of Lebanese ministerial cohorts by cabinet yielded a number of significant patterns: sectarianism, both in terms of ministerial affiliation and

competition; za'imism, with its three levels, denoting a leader's relative power position vis a vis his peers; education level and specialization, reflecting a systemic concern with development (engineers, economists, physicians). These three patterns seem to correspond, to a large extent, with those patterns suggested in hypothesis 1 and its predicted characteristics for Lebanon. The sectarian heterogeneity of the elite is clearly manifested as is the dynamics of the confessional balance in a pluralist society. The only dimension which does not clearly emerge from our analysis is the entrepreneurial-financial background of the elite. This peculiarity may be explained by the absence of relevant variables, e.g., wealth or economic connections. Finally, although an «end of ideology» society, Lebanon seems to display recruitment patterns manifesting substantial traditional values and structures, e.g., za'imism, which influence the political mobility of cabinet officials.

determinants of tenure: path analysis

One major purpose of the foregoing factor analysis was parsimony. In each elite group a large number of social background variables were reduced to a few manageable ones, several of which are now to be utilized as independent variables in a causal model. In order to describe the perceived relationships between these independent variables and a specific dependent variable—tenure in cabinet—the following hypothesis may be advanced:

2. Salient social background characteristics of ministers—socializational and associational—influence tenure in cabinet office.

measurement of variables

The patterns derived from the factor analysis suggest the use of interval scales,⁴⁰ along which each minister's background characteristics were scaled. For each elite group, five independent variables were operationalized,⁴¹ in order to measure their effect on tenure. The

40. In all cases except three, interval scales have been used.

41. For Israel: Hagana-extent of involvement=high=2, low=1, none=0; Birthplace-Tzairist Empire=2, West Europe=1, Middle East=0; Occupational Status-Zionist/Bureaucrat=2, Military=1, professional/other=0; Party-ruling coalition=2, Opposition party=1, Independents/other=0; Cabinet Rank-high cabinet post=1, low cabinet post=0.

For Egypt: Educational Level-Ph.D.=5, MA=4, BA=3, No College=2, No Degree=1; Core Cadre-membership=1, no membership=0; Age (generational cohort) 30-39=5, 40-49=4, 50-59=3, 60-69=2, 70 and up=1, under 30=0; Religion-Muslim=1, Copt=0; Occupational Status-Military=7, Military-technocrat=6, Academician=5, Engineer=4, Bureaucrat=3, Businessman=2, Lawyer=1.

single dependent variable—tenure in cabinet office—was measured in years and scaled similarly in the three polities.⁴²

The choice of tenure as the main dependent variable needs theoretical justification. One can begin by observing that tenure in office (as distinguished from recruitment and disposition) is an essential part of the elite circulation process which has not received any systematic treatment in elite studies. We consider tenure a dynamic and theoretically potent variable for a number of reasons. An important, and inadequately investigated, consideration is a fundamental hypothesis of elite theory: once in political office, leaders tend to maximize their tenures.

The hypothesis suggests that tenure is influenced by certain psychological attributes of leaders, as well as certain systemic situational variables which tend to contribute to a leader's political longevity. The recruitment-circulation data as presented here is insufficient to investigate the totality of this hypothesis. Theoretically, tenure in political office (like the acquisition of office) can be influenced by a combination of factors—personal and situational. Personality variables affecting tenure include a leader's psychological attributes—drive, giftedness, resourcefulness—as well as socializational experiences—family life, education, and religion. Situational factors may be perceived as the totality of systemic, environmental, and associational determinants. Systemic and environmental determinants include elections, inter-elite conflicts, turbulent social milieux, and international crises. However, associational determinants of tenure affect the elite more directly; these are occupational background, educational, economic and political affiliations, political generation (age cohorts), to mention the more obvious variables. It becomes evident that the social background data presented here belongs to the associational, and to a lesser extent, to the socializational category.⁴³ Therefore, the absence of data on the psychological attributes and systemic environmental influences on elite tenure, is expected to contribute to the unexplained or residual variance thus limiting the explanatory power of social background variables.

The theoretical significance of tenure as a dependent variable becomes more pronounced in the case of high level

For Lebanon: Educational Level - Ph.D. = 5, MA = 4, BA = 3, AA = 2, No Degree = 1; Occupational Status-Proprietor-Entrepreneur = 5, Proprietor-Lawyer = 4, Entrepreneur-Lawyer = 4, Proprietor = 3, Lawyer = 2, Physician, Engineer, or Bureaucrat = 1; Assembly-membership = 1, no membership = 0; Za'imism-high = 3, middle = 2, low = 1, none = 0; Sectarian Competitiveness-Maronites = 5, Shi'ites = 4, Orthodox = 3, Catholic = 2, Sunnis = 1, Druzes-Armenians = 0.

42. Tenure is measured similarly for the three countries-up to one year = 0, 1-5 yrs = 2, 6-10 yrs = 3, 11-15 yrs = 4, 16 and up yrs = 5.

43. For similar findings concerning the Greek political elite see, Koutsoukis, *Elites and Society*..., pp. 231-254.

political positions, particularly tenure in cabinet office. As pointed out earlier, cabinet positions in all three political systems are both prestigious and powerful to the extent that an ambitious politician would consider a ministership the apex of his career. It follows that a longer cabinet tenure may be synonymous with success in politics.

causal models

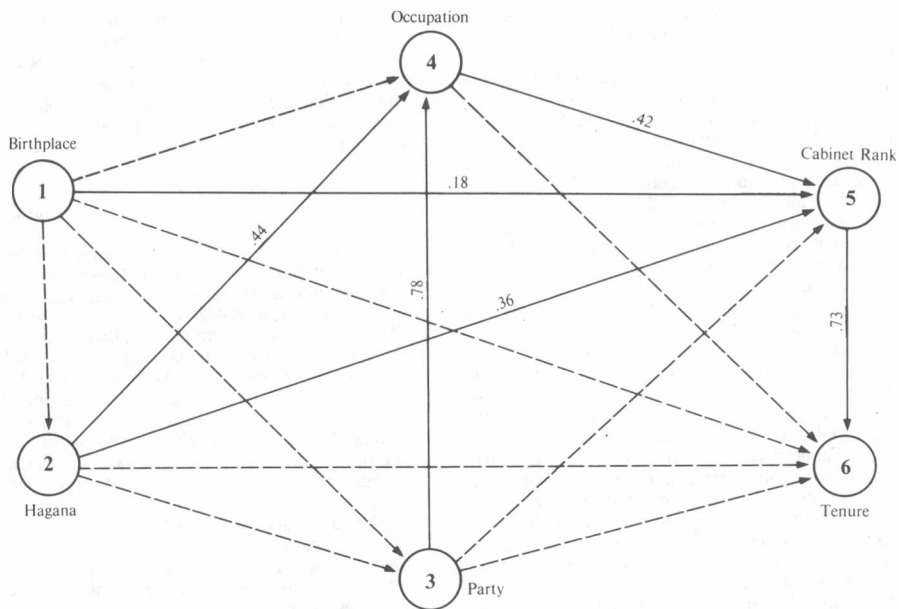
The group of techniques associated with causal analysis includes the Simon-Blalock model, path analysis, and step-wise regression analysis. The early work on causal paths began in biometrics and sociology (Wright, Tukey, Kempthorne, Blau and Duncan, Blalock), and by the sixties political scientists had begun using it (Miller and Stokes, Alker, Goldberg, McCrone and Cnudde, A. Smith) mainly for studying political development and voting behavior. Here an attempt will be made to apply path analysis to test hypothesis 2—to determine the relative influences of salient elite background characteristics on length of tenure in cabinet.

The causal analysis consists of several steps: (1) correlation runs of elite background data; (2) use of zero prediction equations to determine direct cause-effect relationships and to reduce weak linkages among the variables (minimum limit = .10); (3) regression of the endogenous on the exogenous variables; (4) the assignment of standardized regression coefficients as path coefficients. As is customary to state in path analysis, the proposed causal models are recursive, linear, hierarchical and additive.⁴⁴

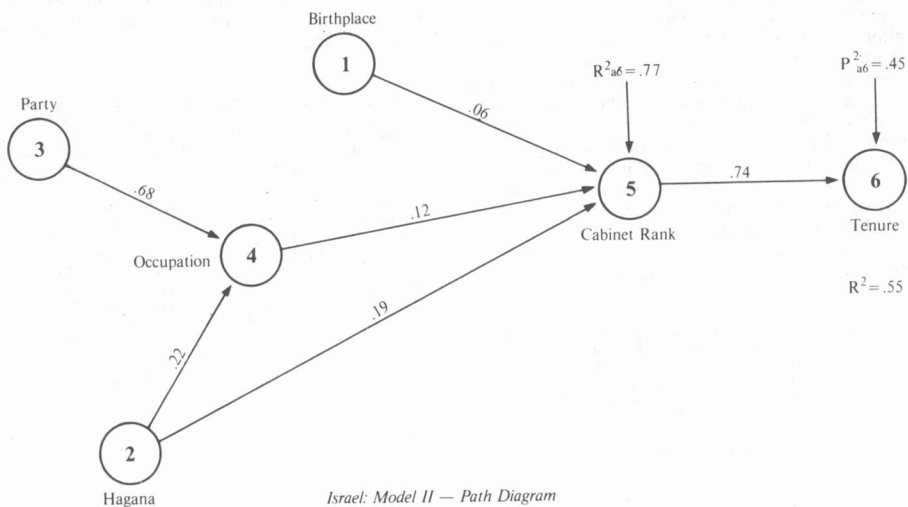
44. For methodological discussions of causal analysis, see, Hubert M. Blalock Jr., *Causal Inferences in Nonexperimental Research* (Chapel Hill: University of North Carolina Press, 1964), pp. 61-94. Hayward R. Alker, Jr., «Causal Influence and Political Analysis», in J.S. Bernd, ed., *Mathematical Applications in Political Science* (Dallas: Southern Methodist University Press, 1966), pp. 7-43. Arthur S. Goldberg, «Discerning a Causal Pattern Among Data on Voting Behavior», *American Political Science Review*, Vol. 60 (1966), pp. 913-32. Hubert M. Blalock, Jr., ed., *Causal Models in the Social Sciences* (Chicago: Aldine, 1971). G. David Garson, *Handbook of Political Science Methods* (Boston: Holbrook, 1971), pp. 216-25. See Kirkpatrick, *Quantitative Analysis*..., pp. 160-1 for justification of eliminating weak linkages by prediction equations. Examples for Israel: For Δ 456 in Model I r_{46} is cancelled thusly:

Model	Predicted	Actual	Difference
$r_{46}r_{45} = r_{56}$	$.32 \times .42 = .13$	.73	.60 keep
$r_{46}r_{56} = r_{46}$	$.32 \times .73 = .23$	.42	.19 keep
$r_{45}r_{56} = r_{46}$	$.42 \times .73 = .30$	.32	.02 erase

For reservations as to type of error in rejecting linkages, see Goldberg article cited above, footnote 22.



Israel: Model I — Correlation Coefficients



Israel: Model II — Path Diagram
(Standardized Regression Coefficients)

ISRAEL

Five independent variables were chosen from the elite background patterns which emerged from the previous factor analysis. Model I presents an ordering of the causal assumptions based on knowledge of Israel's history and political development. Thus, both birth place and Hagana involvement were relatively early experiences which implied an influence on occupation and party affiliation, both of which would be expected to have an impact on cabinet rank and ultimately cabinet tenure. The ordering of the arrows reflects the time sequences implicit in the theoretical assumptions. Weak linkages, as represented by broken lines in Model I have been eliminated by a series of prediction equations, which are used to calculate partial correlations between two variables, always controlling for the third variable. For instance, in Model I, Hagana affiliation influences cabinet tenure through cabinet rank rather than directly; thus, the Hagana-tenure linkage is weak and therefore removeable. In this manner, the degree of fit of the data with the ordering of the variables is explicated; the results are shown in Model II.

In interpreting Model II, the standardized regression coefficients have been assigned to the main paths. These values were calculated by regressing the endogenous on the exogenous variables and standardizing the resulting beta coefficients which then become beta weights or path coefficients.⁴⁵ The beta weights indicate the amount of change in the dependent variable caused by standardized units of change in the independent variable controlling for the earlier variables.⁴⁶

Model II suggests several direct and indirect linkages among the independent variables and the dependent variable. The key independent variable affecting cabinet tenure is cabinet rank through which all the other variables influence tenure. Thus, cabinet rank is directly influenced by the country of birth (.06) of Israeli ministers as well as their occupational status (.12) and Hagana affiliation (.19). The Hagana variable is dominant since it also has a large indirect influence on cabinet rank through occupational status (.22) as does party affiliation (.78). Finally, the cumulative influence of all the variables is expressed through cabinet rank which is $R = .74$. It follows that the amount of variation explained by the independent social background variables is $R^2 = (.74)^2 = .55$ or 55%. This finding is consistent with our expectations as expressed earlier concerning the limitations of the explanatory power of social background characteristics as influencing length of tenure. The remaining unexplained variance—45%—may be attributed to variables other than elite social

background characteristics, particularly the psychological attributes of individual leaders and/or systemic and environmental determinants. Despite these limitations the findings in Model II are consistent with Israeli political experience. In the early years of the Yishuv such associational activities as Hagana and Jewish communal bureaucracies were central to the future leaders of Israel. The mutually influential relationship between party and occupation was politically significant since a leader's occupational status in bureaucracies like Histadrut could well depend on his party standing. Also top Mapai party bureaucrats, by virtue of their being in power for long periods, increased their cabinet rank and their tenure in cabinet. The powerful influence of cabinet rank (.74) on tenure is attributable to the ability of high ranking ministers to skillfully dominate Israeli coalition politics sufficiently to return to office with great frequency. Since cabinet rank emerges as a unique determinant of tenure, one may want to calculate possible independent influences on it. Thus, occupation, birthplace and Hagana represent only 23% of the variance of cabinet rank ($R = .48$), the rest being attributed to unknown variables.

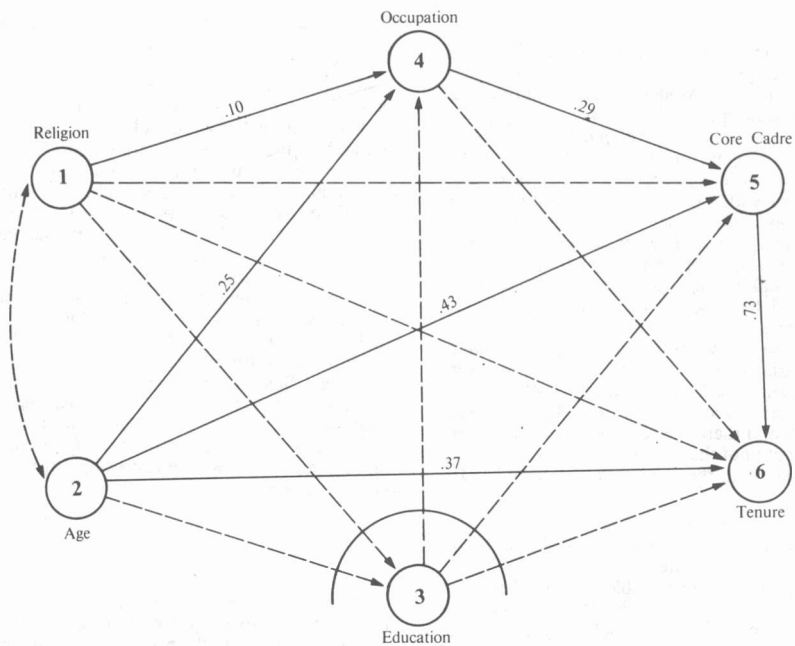
EGYPT

The patterns derived from the factor analysis of the Egyptian elite data suggested five independent variables for path analysis. On the basis of Egyptian history and politics, Model I presents a causal hierarchy of variables, except religion and age, which are considered ascriptive and therefore not acquired. There exist many weak linkages (as indicated by low correlations and broken lines) which are eliminated by the use of prediction equations; hence the elimination of education, since it does not seem to influence the other variables.

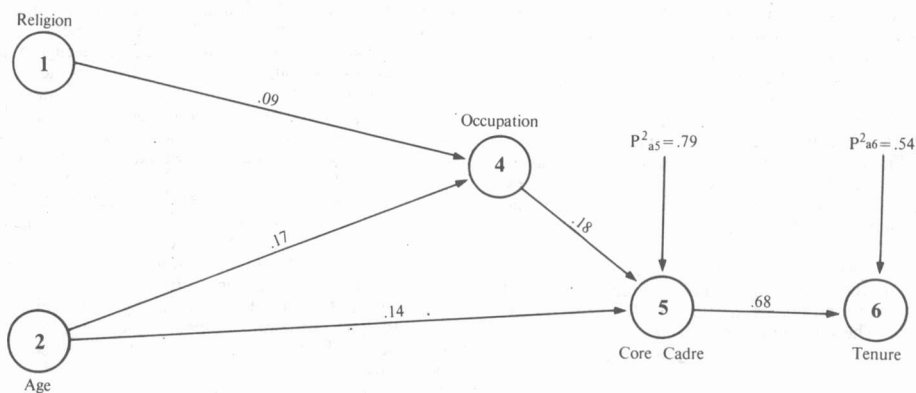
The results are shown in Model II. Religion influences occupation; this is explained by the overwhelming number of Muslims in the revolutionary officers group as well as the large majority of Muslims in the total cabinet elite. Age—the political generation cohort—seems to influence occupational status (.17) and core cadre membership (.14). This finding seems consistent with the Egyptian elite's evolution after the 1952 Revolution. As in other revolutionary milieux, belonging to the generational cohort which led the revolution is significant for political mobility and entrance into top leadership cadres and ultimately to longevity at the top. Thus, belonging to the military revolutionary age cohort influences membership in the core cadres around Nasir directly, and through occupational status (the military being the highest) indirectly. Membership in this particular age group and a military occupation increases the chances of entering the top leadership group (core cadre) where one's relationship

45. Garson, *Handbook*.... p. 196.

46. Kirkpatrick, *Quantitative Analysis*.... p. 191.



Egypt: Model I—Correlation Coefficients



Egypt: Model II—Path Diagram
Standardized Regression Coefficients)

$R^2 = .46$

to the leader determines tenure in cabinet.⁴⁷ The cumulative effect on tenure is expressed by the standardized regression coefficient of $R = .68$. The amount of variation explained by core cadre membership as independent variable is $R^2 = (.68)^2 = .46$ or 46%. Thus, social background variables explain 46% of the influence on tenure; the unexplained variance was 54%—mostly attributable to personal gifts, and systemic and environmental factors and error.

Since core cadre emerges as a uniquely strong predictor of tenure, one is tempted to identify the sources and amounts of influence on it. This is calculated by utilizing the multiple correlation coefficient $R^2_{1.23} = .21$ or 21% which represents the amount of variance explained by variables 2 and 3—occupational status and age.⁴⁸ Thus, there must exist other unknown variables contributing to core cadre.

LEBANON

The factor patterns of the Lebanese data suggest the centrality of five independent variables as presented in Model I. The causal arrows are derived from the historical and political realities of Lebanon. As in the previous cases, weak correlational links have been eliminated by prediction equations and the results are presented in Model II.

One striking feature of the path diagram (Model II) is the elimination of all causal linkages originating from sectarianism. The resulting removal of sectarianism as a causal variable was unexpected considering the central recruitment role of Lebanon's seven religious sects as indicated by the factor patterns. Another striking feature is the negative influence of education on Assembly membership and occupational status. However, education (level) exercises a direct influence on cabinet tenure (.11). More significant is the influence of occupational status both on za'imism (.19) and on Assembly membership (.09), which in turn has an effect on za'imism (.06). The contribution of za'imism to cabinet tenure is considerable (.78)—a finding that was in accord with our expectations.

In sum, there are two direct effects on tenure—from education (.11) and from za'imism (.78). Despite its smaller influence, the effect of education is not negligible since it indicates the importance of specialization in the cabinet—a dimension that relates to the moderniza-

tion process. Za'imism is a powerful influence on tenure and reflects the prominent position of this type of traditional leader in Lebanon. This may suggest that the more prominent a za'im, the greater his longevity in cabinet office.

Overall, the amount of variance explained by za'imism and education is calculated as $R^2 = .57$ or 57%. Thus, unexplainable variance—.43 or 43%—can be attributed to other situational and personality variables as well as to error. Similarly, it is possible to investigate the origins of influence upon za'imism—the strongest independent variable. Here, Assembly and occupation explain only 44% of the variance on za'imism and 56% is unexplained and attributed to error and other variables not accounted for in this study.

comparative perspectives

The findings of the foregoing tri-country study suggest a number of cross-national generalizations, mixed with some words of caution. Considering the limitations of the type of data used here, as well as the possible shortcomings inherent in the measurement of variables, one should be careful to view any conclusions as tentative. As one studies the three factor solutions, the patterns of religion and specialization manifest cross-national significance. The religious dimension is particularly salient in Lebanon's sectarian politics and Israel's multi-party coalition where religious parties play a crucial role. Egypt, in contrast, displays a strong specialization pattern, both occupationally and educationally. Of course specialization also appears in the factor profiles of Israeli and Lebanese elites, as does religion in the Egyptian case, but not in the first pattern. Three other patterns appear as system-specific features of each elite group—Zionist bureaucracy, generational cohort (core cadre), and za'imism. Upon closer examination, one might discern a rough equivalence between Israel's Ben Gurionite bureaucratic contingent, membership in Egypt's revolutionary cadre and accession to the ranks of Lebanon's za'ims. These seem to be primary sources of elite recruitment.

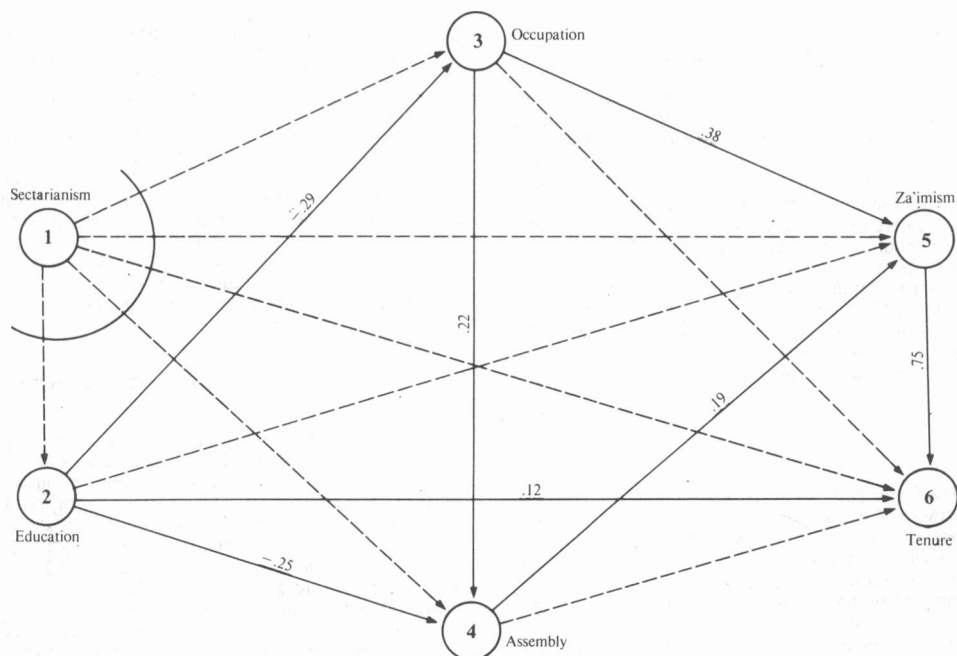
Overall recruitment patterns tend to correspond with the societal characteristics of the three polities (hypothesis 1). Israel and Lebanon, as democratic societies, exhibit a system-continuity pattern where traditional values and symbols are still politically influential, but coexistent with the inexorable trend toward modernization, particularly in Israel. In Egypt, military officers and technocratic specialists were brought to the cabinet by Nasir reflecting an ostensible revolutionary system's break with tradition and commitment to modernization. This was in sharp contrast to the prevalence of Israeli bureaucrat-politicians and Lebanese Za'ims-politicians, who possessed lower levels of specialization. Additionally, it is significant that the

47. Dekmejian, *Patterns*....pp. 179-84.

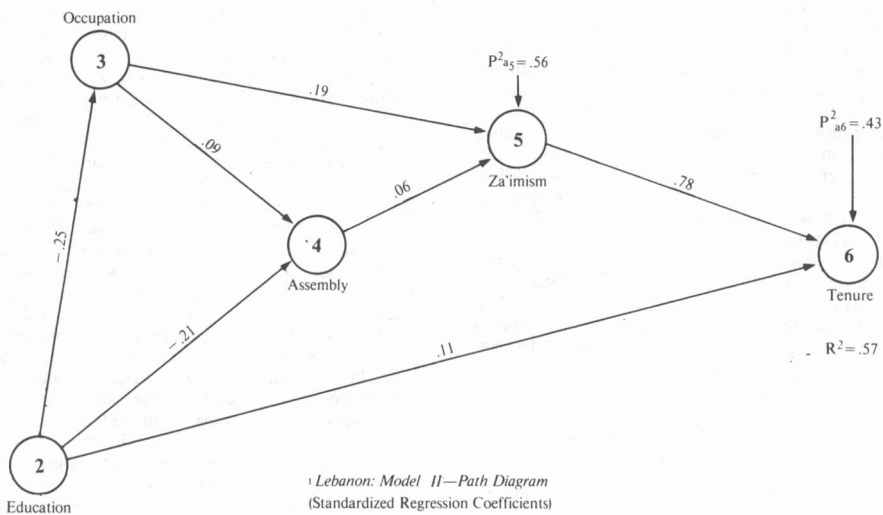
48. This is calculated by the formula

$$R^2_{1.23} = \frac{r^2_{12} + r^2_{13} - 2r_{12}r_{13}r_{23}}{1 - r^2_{23}}$$

On this calculation see, Garson, *Handbook*.... p. 197. No tests of statistical significance are necessary since we are dealing with the whole universe.



Lebanon: Model I—Correlation Coefficients



Lebanon: Model II—Path Diagram
(Standardized Regression Coefficients)

party factor is manifest only in Israel, reflecting the lack of strong party structures in Egypt and Lebanon.

Despite the apparent comparability of these findings, the question of equivalence can not be overlooked. While both Israel and Lebanon registered a strong religious pattern, Lebanese sects and Israel's religious parties play substantially different system-specific roles. On the other hand, it is relatively easier to achieve equivalence in comparing occupation, education and particularly tenure—the common dependent variable used in path analysis. Yet even in these cases, it may be well to remember that variables often change their meanings in differing cultures and over time; a given length of tenure may assume politically dissimilar meanings in different environments.

The causal relationship between social background characteristics of leaders and tenure (hypothesis 2) was confirmed, to a considerable degree by the path analysis technique. Of course, the causal models are not intended as substitutes for reality, but only as approximations of it. Thus, the three causal models seem to suggest that longevity in high office is directly and perhaps more strongly influenced by a leader's associational affiliations rather than personal attributes or early socialization. These models may suggest further that an aspirant's success in entering a key recruitment pool or membership in a systemically important cohort—i.e., ranking Zionist bureaucrat, core cadre revolutionaries—strongly in-

fluences his tenure in cabinet. One should emphasize the role of chance in deciding the membership of these key recruitment pools; for example, a generational cohort is largely determined by the accident of being born at a particular time and place.

Methodologically, the application of factor analysis and causal modelling to the study of elite recruitment we consider useful, although problems remain in measurement and equivalence. Choosing data categories and scaling may significantly affect the sensitivity of the causal process and consequently the accuracy of the findings. A number of existing possibilities for further research become manifest. One is the comparative study of pathways of elite mobility by the use of path analysis in conjunction with Markov Chain and other stochastic techniques. Also it is possible to use a larger number of independent variables if additional data (for example psychological) is available. One might further experiment with dependent variables other than tenure; for example, social background variables may be useful in predicting elite policy choices or levels of mobility in entering different elite cohorts. A related task is to use path analysis and similar methods to identify opportunity structures that would affect the chances of aspirants for political office. Thus, one may delineate the prerequisite conditions and operating standards for admission into the political elites of different countries.