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CIVIL-MILITARY DIFFERENTIATION IN THE
NEW INDUSTRIAL STATE*

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INTRODUCTION

Recent literature on military structure posits a convergence between civilian and military modes of organization as management skills become increasingly important for promotion to the upper echelons of the armed forces. Analysis of careers of generals in the United States Air Force, which has the most complex technology of the American armed forces and hence faces the most difficult organizational task, however, indicates that combat skills still take precedence over management skills as criteria for promotion to general officer grade. Such skills serve as the basis for a "bureaucratic" career in the military context.

At the same time, contemporary theories of formal organization suggest that corporate bodies in the civilian economy have adopted "post-bureaucratic" structural forms, and that the bureaucratic model is now inadequate for describing management careers in this context. Thus, there seem to be factors mitigating against structural convergence.

These factors have implications for theories regarding the development of a "military-industrial complex" in the United States. The power elite model of military-industrial dominance assumes isomorphic organization in the two realms. The isomorphism allows for the facile interchange of personnel. The continued differentiation of the two structures both through the maintenance of combat skills as the primary criterion for military promotion and the development of

civilian organization in non-bureaucratic directions makes formation of a military-industrial complex in structural terms (as distinct from simple economic exchange) more difficult.

THE POWER ELITE MODEL.

Much of the discourse on civil-military relations in the United States during the last decade has been influenced by C. Wright Mills' power elite model (Mills, 1956). Mills saw power in America as being concentrated in the hands of the people who control the American armed forces, the largest corporations, and the governmental structure. The members of this power elite were purported to come from similar social origins, to travel in the same social circles, and to take each others interests into account in the process of making decisions within their own organizational spheres.

Historically, Mills saw shifts in the relative importance of the military, corporate and governmental realms. In the post World War II period, he saw the military ascendancy as the dominant influence in shaping the power elite. Yet Mills also recognized that in terms of education and social origin, the military were not really similar to the rest of the elite, and that the process of promotion through the military hierarchy produced officers who had given up some of their civilian sensibilities (cf. Bopegamage, 1969). This

difference between civilian and military members of the power elite may be seen as an obstacle to the cohesiveness of that elite, and indeed, Mills postulated that the elite was "frequently in some tension" and came together "only on certain coinciding points."

Mills' power elite model has been challenged most frequently on the basis of the position that the military structure takes in his formulation. Janowitz (1960: 73) has questioned the utility of asserting structural similarities between military and civilian managers.

"C. Wright Mills suggests that contemporary military leaders are like corporation managers, and are even, in a sense, managers who are interchangeable among various types of organizations, thus creating a power elite. There is little to be learned from a theory which can be reduced to the simple formula that a manager is a manager, regardless of his organizational environment."

Other critics have challenged Mills' model not so much on the grounds of its assertion of homogeneity among members of the elite, as on the dominant position that Mills gave to the military leaders (see for example Sweezy, 1969; Aptheker, 1969). In the light of these criticisms, more recent attempts to demonstrate the existence of a "power elite" in the United States have in fact come to view the military as a junior partner in the elite structure, serving rather than shaping the interests of an assumed upper-class (see for example Domhoff, 1967).

Ironically, just as the primacy of military leaders in the American power structure is being denied, trends in

military organization are seen as producing leaders who are increasingly similar to the civilian elite as postulated by Mills. At the same time, however, the nature of civilian organization is seen as moving away from this same model, thus maintaining the differential between military and civilian leadership styles.

PATTERNS OF MILITARY MANAGEMENT.

Social theories on the relationship between military and civilian organizational structure have in an important sense come full cycle. Military structure served as a major source of insight for Max Weber's model of rational organization (Weber, 1924), which in turn has served as the basis for much of the research carried out on complex organizations in the civilian context. Until recently, however, it was generally assumed that because of differences in skill requirements and technologies, military and civilian structures had to have different organizational forms. This notion of differentiation of military from civilian structures has in fact been a common theme in social philosophy and theory since at least the third century B.C., when Plato argued in the Republic that war, like everything else, required individuals specially adapted to such activity and devoting their time exclusively to it.

Contemporary research on military organization has rejected the theme of structural differentiation and rather

has stressed observed areas of convergence between civilian and military structures. Thus, Janowitz (1965: 17) has argued that "to analyze the contemporary military establishment as a social system, it is...necessary to assume that for some time it has tended to display more and more of the characteristics typical of any large-scale nonmilitary bureaucracy." While this tendency has frequently been referred to in the literature as the "civilianization" of the military, the notion of convergence seems more accurately to represent the processes involved. The military does not seem to be adopting organizational strategies from the civilian arena. Rather, both military and civilian organizations seem to be adapting to similar environmental conditions, and making organizational decisions on the basis of similar organizational principles, with the military frequently making the adaptation prior to similar changes in civilian organization. With regard to skill distribution, for example, Lang (1964:45) has argued that "change in the military occupational structure appears in certain respects to have anticipated change in the labor force," while with regard to organizational structure itself, Grusky (1964:84) reports that "comparative analysis of military and civilian organization suggests that military organization has reached a stage of bureaucratic development which seemingly anticipates the future movement of other complex systems."

Recent military sociology, then, asserts the existence

of similarities between military and civilian bureaucratic organization, with the leadership structure of the military paralleling the management structure of civilian complex organizations. "The relatively small group of military managers, selected by a process of internal recruitment on the basis of career commitment and demonstrated potential for higher management, represent the core of the profession." (Lang, 1964:78).

BEYOND BUREAUCRACY: THE NEW INDUSTRIAL STATE.

While students of military organization are basing their arguments for civil-military convergence on the increased bureaucratization of the military, contemporary theories of economic organization are suggesting that the most adaptive model for modern organization may in fact not be the bureaucratic model. The notion of bureaucracy implies hierarchical organization, through which an individual is promoted on the basis of demonstrated competence at tasks deemed important for the fulfillment of organizational goals. Thus, the successful bureaucratic career is presumed to be based upon expertise with regard to the specific product or service that a specific corporate organization supplies. As will be shown below, this model in fact fits military careers, but seems less appropriate for describing modern economic organization.

The notion that a bureaucratic career may be dysfunctional

for economic organization is not new in organizational theory. Two decades ago, Drucker (1950) pointed out that the job of top management is radically different from the tasks performed by operating executives, and that bureaucratic executive training produces people who are too narrowly specialized to fill the "generalist" needs of top management. Unlike the army, Drucker argued, economic enterprise required a radical break between junior and senior management jobs.

Drucker saw the task of top management as primarily assuming responsibility for the profitability of the enterprise. This requires a general knowledge of the various operations taking place within the corporate structure. As a secondary function, top management was to assume responsibility for the organization and coordination of the enterprise's human resources.

More recent organizational theory places this latter function first, and minimizes the importance of the former. Thus, Galbraith (1967), in The New Industrial State, suggests that in the modern, highly specialized economic system, the task of organizing specialists will be so complex within a given corporate structure that there will be specialists on organization. These latter will function to coordinate the activities of the various "technocratic" specialties within the enterprise.

A more extreme statement along the same lines appears in the writings of Bennis and Slater (1968), who suggest

that the rate of change and the development of new organizational problems in the modern economy makes bureaucratic organization obsolete. The routinized responses of bureaucratic structures, they argue, do not provide sufficient organizational flexibility. Rather, they propose that bureaucratic agencies be replaced by temporary working groups, bringing together men with specific skills to solve specific problems, and disbanding once the problems are solved. The job of top management in this setting comes to be that of building an organizational climate where growth and development are culturally induced. The manager's substantive knowledge about a particular topic becomes far less important than his understanding and possession of skills regarding collaboration and coordination.

It is interesting to note that Bennis and Slater see this model being manifested most commonly in defense-related fields, such as the aerospace industry, thus providing a direct challenge to the "power elite" notion of structural similarity between the military and their suppliers in the economy at the level of top management.

TOP MANAGEMENT IN THE AIR FORCE.

I have suggested above that military organizations are characterized by elite career patterns that produce "bureaucratic managers" rather than "management specialists." The former attain their positions by demonstrating high skill

levels in the specific activities that contribute to the product or service produced by their organization. They thus form a highly specialized and mission-oriented organizational elite. The latter attain their positions by their ability to organize human work efforts, and their skills in this regard are presumably transferable from one organization to another. Herein lies the basis for the proposition that Janowitz objected to in Mills' model, viz., "a manager is a manager regardless of his organizational environment." We join him in his objection not because the model is overly simplistic, but because it is wrong.

Let us consider the ranking officers of the United States Air Force as a case in point. Of the 4 branches of the armed forces, we would expect the Air Force to fit the "management specialist" model of elite careers more closely than do the other branches for three reasons. First, the Air Force has the most complex military technology of the armed services, and hence requires a highly differentiated and specialized personnel structure. Coordination of these specialties is a major organizational problem. Secondly, as the newest branch of the armed forces, the Air Force would be expected to have less commitment to traditional modes of organization than do the other branches (cf. Segal and Willick, 1968). At the onset of the second World War, the Air Corps existed only as an auxiliary branch of the Army, and accounted for less than 10 per cent of the total American military personnel. The Air Force emerged as an independent branch

in the post-World War II period, and by the 1960's, accounted for over one-third of the total men under arms. Finally, the Air Force's own classification of its current occupational structure reflects its technocratic nature in that no category for "military-type" occupations has been retained. This is a marked contrast to the occupational structure of the Navy, which ranks second to the Air Force in technological complexity. Almost half of the personnel in the Navy are classified in "military-type" occupations (Lang, 1964:43-44).

The American armed forces do in fact maintain a system of rotation of assignments for officers in order to develop appropriate managerial perspectives. Van Riper and Unwalla (1965) have demonstrated, however, that the ranking officers in the American armed forces have been able to specialize nonetheless, by rotating assignments within narrowly defined realms.

Previous research has shown that a service academy education is less important for eventual promotion to general officer grade in the Air Force than it is in the Army or the Navy (Segal, 1967). This would seem to be crucial, because academy training tends to be directed toward combat and combat-related activities, rather than toward administration (Van Riper and Unwalla, 1965). As Table 1 shows, the percentage of academy graduates at general officer grade in the Air Force decreased at all levels save that of lieutenant general between 1951 and 1964,

Table 1. Per cent of general grade officers in United States Air Force with military academy degrees, by year.

<u>Officer rank</u>	1951		1964		1968	
	<u>per cent</u> <u>academy</u>	<u>N</u>	<u>per cent</u> <u>academy</u>	<u>N</u>	<u>per cent</u> <u>academy</u>	<u>N</u>
General	75	4	69	13	69	13
Lieutenant General	31	13	67	33	41	39
Major General*	55	95	49	162	24	149
Brigadier General*	51	135	23	214	21	204
All General Grades	51	247	38	422	25	405

Source: Air Force Register, Office of the Air Adjutant, 1951, 1964, 1968.

*Based on 50% sample.

and except for the rank of general, the descent continued between 1964 and 1968.

This decrease in academy-trained generals, however, does not necessarily portend an increase in managerial orientation at these ranks. Van Riper and Unwalla (1965) suggest that what is really crucial is not necessarily an academy training, but rather a combat orientation. In the case of the Air Force, sources of recruitment other than the academies may in fact provide this orientation.

The specific combat task of the United States Air Force is to fly aircraft, and if the bureaucratic succession model were applicable to the explanation of promotion to general officer grade in the Air Force, we would expect to find a

preponderance of officers with aeronautical ratings (pilot or navigator) at these grades. As Table 2 shows, the proportion of general officers in grade in 1968 who hold aeronautical ratings is higher than the proportion who have academy educations. Indeed, of all generals in that year, 88 per cent were rated officers, while only 28 per cent were academy graduates. It is also notable that at the ranks of major general and brigadier general, officers initially commissioned through the aviation cadet program outnumbered officers commissioned through the service academies.

<u>Officer Rank</u>	<u>Source of Recruitment</u>			<u>Per Cent rated</u>
	<u>Academy</u>	<u>Aviation Cadet</u>	<u>Other</u>	
General	69%	31%		100%
Lieutenant General	41	33	26%	92
Major General*	24	51	25	89
Brigadier General*	21	60	19	84

Source: Air Force Register, Office of the Air Adjutant, 1968.
*Based on 50% sample.

It would seem to be the case then that promotion through general officer grades in the Air Force is seen as a reward for the performance of mission-oriented duties, i.e., flying

aircraft, rather than being indicative of managerial skills.

It must be recognized that to an important extent, the distribution of generals in the Air Force in 1968 reflects an effect of history upon the organizational life of the military. These generals for the most part entered the business of combat aviation in 1934-39. With the involvement of the United States in World War II, there was a tremendous expansion of the armed forces, and trained pilots were moved relatively rapidly through the ranks. It might be argued that academy trained officers who entered the service at that time should have been promoted as rapidly as officers recruited through other programs. However, the data indicate that this was not the case. Aviation cadets who were to reach the grade of general by 1968 were on the average commissioned initially in 1938. Academy graduates who reached the rank of general by 1968 were initially commissioned on the average three years earlier, in 1935. Thus, there is evidence that in the aggregate, aviation cadets moved through the Air Force hierarchy more rapidly than did academy graduates. One reason for this difference might well be the differential in aeronautical ratings between these two sources of commission. Of general grade officers in 1968, 97 per cent of those who had been initially commissioned through the aviation cadet program and 91 per cent of those commissioned through the service academies were rated officers. If non-rated officers were indeed promoted more slowly, this difference could well account for the longer mean-time it took academy graduates to reach general grade.

If we reject the proposition that a manager is a manager, regardless of organizational context, we must at least question the proposition that a general is a general, regardless of assignment. Clearly all officers of general officer rank are not in positions of military management. The assignment of generals to tasks is essentially a problem in the allocation of scarce resources, and in the case of the Air Force, the resource is ability to handle aircraft. Given that a majority of generals are rated officers, and that the Air Force would be faced with a gross surplus of aircraft if it assigned significant numbers of pilots to other duties, we would expect rated generals to spend time "poking holes in the sky," rather than performing managerial functions. Let us therefore narrow the scope of our inquiry and focus on those generals who explicitly have been assigned managerial functions--the principal commanders and staff officers of the Air Force.

Table 3 presents data on the sources of commission of generals, lieutenant generals, and major generals who were listed in the Air Force Register as principal commanders and staff officers in 1952, 1958, 1962 and 1968. Per cents holding command pilot ratings are also given. Nine brigadier generals who were principal commanders or staff officers during this period are omitted from these tabulations because of the small case base.

Table 3. Per cent of principal commanders and staff officers in the Air Force commissioned through military academies and aviation cadet program, and per cent holding command pilot rating.

<u>Rank</u>	<u>Year</u>	<u>N</u>	<u>Per cent academy</u>	<u>Per cent aviation cadet</u>	<u>Per cent command pilot</u>
General	1952	6	67	33	85
	1958	10	60	40	90
	1962	12	75	25	93
	1968	13	69	31	100
Lieutenant General	1952	14	65	35	100
	1958	21	61	33	95
	1962	21	76	19	90
	1968	28	35	53	85
Major General	1952	8	37	37	75
	1958	12	50	25	75
	1962	12	41	17	58
	1968	14	22	65	71

Source: Air Force Register, Office of the Air Adjutant, 1952, 1958, 1962, 1968.

There appears to be a cohort effect in these data. There is a steady increase in the per cent of generals who are command pilots between 1952 and 1968. However, in 1952 and 1958, there are proportionately more command pilots at the rank of lieutenant general than at the rank of general. A future increase in the proportion of pilots at higher command levels is portended by a decrease in academy graduates and an increase in aviation cadets in the 1968 cohorts of major generals and lieutenant generals. These data suggest that even for the top management personnel of the Air Force, combat orientation rather than managerial skill is the crucial basis for promotion and assignment. Moreover, the preponderance of officers commissioned through the aviation cadet program has been increasing in recent years at the grades of brigadier general and major general, and these grades define the pool from which top Air Force management will be chosen in the next few years.

As Table 4 demonstrates, in 1964, the ratio of academy-commissioned brigadier generals to aviation cadet-commissioned brigadier generals was less than 1:2. By 1967 it was greater than 1:3. Similarly at the rank of major general, the ratio of academy-trained generals to aviation cadet-trained generals went from 1.2:1 in 1964 to 1:2.3 in 1967. Clearly, in the short run, we can expect an increase in combat orientation among the top managers of the Air Force.

Table 4. Relative numbers of Air Force generals originally commissioned through service academies and aviation cadet program, by grade, 1964-1967.

Rank	Source of original commission, by year							
	<u>1964</u>		<u>1965</u>		<u>1966</u>		<u>1967</u>	
	<u>academy</u>	<u>aviation cadet</u>	<u>academy</u>	<u>aviation cadet</u>	<u>academy</u>	<u>aviation cadet</u>	<u>academy</u>	<u>aviation cadet</u>
General	10	2	11	-	10	-	10	2
Lieutenant General	24	8	19	12	17	14	15	15
Major General	67	55	60	56	55	65	38	77
Brigadier General	47	89	44	107	39	124	41	133

In the longer run, the picture is somewhat different. The importance of the aviation cadet program in officer accession peaked in 1954, when the program produced 6,663 of the 17,193 new line officers acquired that year. Up until that year, aviation cadets were the single most important source of line officers in the Air Force, and we would on that basis expect to find former cadets predominating among Air Force generals through the mid 1980's. However, at the same time that the aviation cadet program reached its peak size, the R.O.T.C. program surpassed it as a source of line officer accession, producing 9,210 officers in 1954. The R.O.T.C. program itself peaked 2 years later, producing 13,480 line officers in 1956.

Were rates of retention and promotion equal regardless of source of commission, we might expect that aviation cadet dominance at the general officer level, resulting partly from expansion during World War II and partly from the maintenance of the aviation cadet tradition once established (cf. Segal and Willick, 1968), would be replaced in the late 1980's as a legacy of the Korea period. We know however that R.O.T.C. retention rates are low, and our expectation is that aviation cadet dominance will not be succeeded by R.O.T.C. dominance among general officers.

In 1959, however, two new sources of Air Force officer accession made their appearance. Two-hundred and six members of the first graduating class of the Air Force Academy were commissioned, as were 3 officers from the new Officer Training School (O.T.S.) program. These

two sources have grown in import so that in 1965, when only 172 line officers were commissioned through the aviation cadet program, O.T.S. was second only to R.O.T.C. as the major source of manpower, producing 3,571 new line officers. R.O.T.C. produced 3,760, and the Air Force Academy produced 507.

On the basis of the experience of the other armed services in the United States, we would anticipate higher promotion and retention rates among Air Force Academy graduates, but on the basis of numbers, O.T.S. dominance of the Air Force general officer grade in the 1990's may be the legacy of the Vietnam period. The mix of combat versus management training in the Air Force Academy and in the O.T.S. program, and the ascent of graduates of these programs to positions of command, will determine the management ideology of the United States Air Force in the early 21st century.

TWO MODELS OF THE POWER ELITE.

Two levels of similarity between civilian and military management seem necessary for the social integration of a "power elite" as conceptualized by Mills. On the one hand, we would expect to find similarities between the organizational structures within which civilian and military managers operate. Civilian and military managers may be seen as power brokers operating within the same marketplace, with the corporations playing the role of producer and the military playing the role of consumer. Cooperation between them, then,

may be seen as a function of their exercising "countervailing power" from their respective sides of the market (cf. Galbraith, 1952).

Cooperation among countervailing forces is expedited by organizational isomorphism. Perhaps the most dramatic demonstration of this proposition with regard to military organization was the attempt by the United State military to establish the rank of field marshall during World War II to parallel that rank in the British and French forces. In the American case, General Marshall objected to being called Field Marshal Marshall, and the rank was named General of the Army instead. The effect, however, was the same. It established equivalent rank structures at the command level of the various allied forces, and expedited cooperation.

To the extent that our data on the Air Force reflect the state of affairs in the other armed services as well, we are in a position to argue that structural similarities do not exist between civilian and military bureaucracy in the United States to the extent that would be necessary to establish a power elite. If indeed economic enterprise has moved into a post-bureaucratic era, then military and civilian structures are more dissimilar than, for example, the Ford Motor Company and the United Auto Workers, and are less likely to be engaged in any effective collusion as equal partners. The differences between the civilian and military managerial careers can in fact be likened to the differences between professionals and bureaucrats. While management in

the military context is based upon a bureaucratic career, management in the civilian context seems to be in the process of becoming a profession (cf. Van Doorn, 1965). This is not to argue that there are not large scale economic transactions within the military-industrial marketplace, but merely to propose that the two parties are structurally unsuited to being equal partners in a military-industrial directorate within the market.

On the other hand, Mills' model requires similarity and indeed overlap in the informal social networks in which military and civilian managers operate to complement similarities in formal organizational structure. As noted above, Mills recognized that ranking military officers came from different social backgrounds than did ranking politicians or corporate managers. There has in recent years been a tendency to recruit military officers from a broader social base than has been the case historically, and at least one study has suggested that the social backgrounds of military executives are similar to those of civilian federal executives (Warner et al., 1963). This study, however, included all officers down through the rank of colonel among the military executives, and other studies suggest that indeed this broadening of the base has extended up as far as brigadier general, but that above that grade, the traditional selection criteria are still paramount (Van Riper and Unwalla, 1965; Segal, 1967).

A second determinant of the structure of acquaintance networks also mitigates against the establishing of a

cohesive power elite. The context of interpersonal ties among military men is explicitly designed to produce primary relationships (Shils, 1950), on the assumption that it is group cohesion rather than ideological commitment that makes effective soldiers (Shils and Janowitz, 1948). Interpersonal ties in the post-bureaucratic economic organization, on the other hand are characterized as more fragmented secondary relationships (Riesman, 1950; Bennis and Slater, 1968). I suggest that this difference in the quality of interpersonal life between civilian and military personnel makes the development of solidary interpersonal networks of civilian and military managers unlikely.

At the same time, the probability of close interpersonal networks existing among military and civilian managers is in part a function of the social homogeneity of these two groups. This homogeneity, in turn, can be largely defined in terms of recruitment sources. To the extent that members of the military elite are recruited from the population of officers trained in military academies, some differentiation from business executives trained at civilian colleges and universities will be maintained. If on the other hand military manpower requirements are such that officers trained at civilian institutions and commissioned through R.O.T.C. or O.T.S. programs are promoted to elite ranks, opportunity exists for the maintenance of interpersonal ties established in college, and the existence of a solidary military-industrial network becomes more likely.

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