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An Analysis of Clique Formation and Structure in Organizations

The organizational literature has long acknowledged the effects of various formal organizational variables on informal structure. Nevertheless, very few systematic and empirically testable propositions have been formulated specifying relationships in this area. In this article a number of testable propositions are developed which relate the variables of compliance, mobility and size to motivation for clique formation and to constraints within which cliques form. A typology of five clique types (1) coercive cliques, (2) normative cliques, (3) high-mobility utilitarian cliques, (4) seniority utilitarian cliques, and (5) no-mobility utilitarian cliques, is discussed.

In this article several key variables—compliance, mobility, and size—are examined in the light of their probable effects on the informal clique structure of organizations.[1] Such an examination of specific organizational variables and their effects on informal clique structure is missing in organizational literature.[2] Most studies have acknowledged that contextual variables—formal structure and organizational culture—affect informal structure, but these effects have not been examined, thus leaving the impression that they are random, an assumption which is highly improbable.

Compliance, mobility, and size were selected as key variables because each plays a key role in an important phase of either sociological or social-psychological research. The compliance variable has its roots in the Weberian structuralist approach (Etzioni, 1965); the mobility variable is derived from Thibaut and Kelley's (1959) theoretical formulations on groups and social relations, and from reference group theory in social psychology; while the size variable is related to some of the early works of Simmel (1950) and is presently represented in Blau's (1970) theoretical formulations. These three variables are examined as they relate to informal clique structure. The analysis focuses on the effects they have on (a) the motivational base for clique formation and (b) the structural constraints related to clique formation. Each of the variables affects individual and group motivation for clique formation and each creates constraints within which the cliques of various structural characteristics emerge.

VARIABLES IN THE LITERATURE

The effect of technology as a contextual variable on informal structure has been studied and discussed by Blauner (1964), Woodward (1958), and Litterer (1969), while size, another contextual variable, was treated by Ingham (1970) and Blau (1970). Blauner found that the assembly line increases worker motivation for informal

[1] The author wishes to thank Professor Charles Kadushin for his helpful suggestions and guidance in developing this article.

[2] One exception is a paper by Burns (1955) on cliques and cabals. He describes cliques as organized retreats in response to occupational failure which provide a "collusive mutual support," while cabals are proposed to "offer the possibility of illegitimate control and thus success. . . ."

Although Burns states that "the milieu, the social area, is, therefore, related to the clique in a determinant fashion . . . ," he does not develop propositions about how aspects of the milieu might systematically affect the emergence of cliques and cabals. His focus is on individual motivation for clique membership, such as to cope with failure, or, in the case of the cabal, to attempt to achieve control. His paper includes a number of insightful observations about behavior in cliques.

groups, while simultaneously restricting the chance of their actually occurring. Ingham's study indicated that the size of the organization also places constraints on informal groupings.

Discussion of the effects of formal structure on informal structure has been a part of the literature since Barnard's *The Functions of the Executive* (1938). More recently, Etzioni (1961) has posited that different compliance types create different motivations for the emergence of informal structure, as well as provide different constraints for emergent characteristics of the informal structure. Etzioni's formulations lead to the following propositions: normative systems tend to develop informal structures that are integrated and that overlap with the formal structure; coercive systems tend to develop segregated informal structures that control a large sphere of activities; and utilitarian organizations tend to fall between the normative and coercive, with informal structures emerging to fulfill expressive needs. Dalton (1959) discussed informal cliques in terms of their motivational base and relation to the formal structure. His typology included vertical symbiotic, vertical parasitic, horizontal aggressive, and random cliques.

Hornstein *et al.* (1971) discussed the relationship of organizational culture to variables at other levels in the organization by applying a framework (Katz and Kahn, 1966) which viewed the effects of culture on the organization's work process, physical layout, modes of communication, and exercise of authority. This culture is somewhat analogous to the management assumptions about people which Schein examined (1965) and which he thought directly influenced formal and informal organizational structure.

Although the literature has dealt with the effects of organizational variables on the informal structure at different levels, few systematic relationships have been presented. Propositions relating organizational variables to informal structure are also lacking in the literature. At the same time little concerning the emergence of informal structures and their subsequent structural characteristics has to date been empirically testable.

This article, therefore, develops empirically testable propositions using the variables of compliance, mobility, and size, relating them to motivation for clique formation and the constraints within which cliques can form.

THEORY UNDERLYING THE VARIABLES

Mobility

Upward vertical movement within an organization is labeled mobility. Gumpert and Smith (1968) defined three kinds of mobility systems: (1) the high-mobility system, in which promotion is primarily based upon merit and in which movement is fairly rapid; (2) the seniority system, in which promotion is due to length of time on the job; and (3) the no-mobility system, in which there is no chance for promotion. Each of these systems tends to develop different clique structures that serve as reference groups.

Social comparison needs are a key factor in the emergence of cliques as supported by Festinger's observation "that the desire to compare themselves with others will lead to social contact. (Deutsch and Krauss, 1965)." Gumpert and Smith propose that satisfactory adjustment to social systems—defined as setting a comparison level, Thibaut and Kelley's (1959) formulation, which is appropriate to the situation, for example, it takes into account (1) the type of mobility system, (2) one's relative status in the system and (3) proper identification of components of the task—with different mobility structures includes the use of different comparison people depending on the type of system.

In no-mobility systems, outcome comparisons with people who are at higher levels tend to lead to chronic dissatisfaction due to the fact that their better rewards are never attainable. Thus, the most "satisfactory" strategy is to compare oneself with those at the same level or below.[3]

[3] Satisfactory adjustment refers to adapting to the status quo social system. Therefore, radicalism or advocacy of doing away with the existing social system by low status members is not considered here, although under certain conditions such an adjustment could be considered a "satisfactory" strategy and would rely on increasing the salience of outcome differences due to status differences.

In a mobility system, however, one of the motivations for performing well is the anticipation of better rewards; thus, the inclusion of comparisons with others who are at higher statuses is functional for satisfactory adaptation. The seniority system falls between the no-mobility and mobility system, with limited inclusion of others at higher status levels.

Organization members commonly view individuals as members of "groups or classes of individuals" and refer to them as "reference groups which are used as standards to evaluate attitudes, abilities, or current situation (Jones and Gerard, 1967)." Kelley (1952) distinguished between two types of reference groups—normative and comparative. The normative reference group sets and maintains standards for the individual (serving as a source of his values); the comparative group provides a standard of comparison by which the individual evaluates himself and others (Deutsch and Krauss, 1965). These types of reference groups are distinguished from interaction groups, which may or may not overlap with the first two. The primary focus here is on those cases in which a high degree of overlap occurs between interaction, normative, and comparative groups.

It is highly likely that reference groups within organizations frequently become membership groups. Both the normative and comparative needs of an individual are most easily fulfilled by the group to which he belongs. If membership groups are also reference groups, then the effects of mobility on reference groups are also effects on membership groups. Some of these groups are informal cliques.

Compliance

The concept of compliance is derived from the Weberian structuralist approach. Etzioni (1961) formulated three types of compliance systems—coercive, utilitarian, and normative. Each is made up of two components—power and degree of involvement. Power is "an actor's ability to induce or influence another actor to carry out his directives or any other norms he supports." Etzioni discussed three types of power which differ according to the means employed to make the subjects comply. The three types are coercive (use of physical threat), remunerative (material resources), and normative (allocation and manipulation of symbolic rewards). In this discussion Etzioni's hypothesis concerning pressure toward congruent compliance systems is accepted and only the three congruent types (coercive, utilitarian, and normative) are dealt with. Etzioni's hypothesis is:

> Congruent types are more effective than incongruent types. Organizations are under pressure to be effective. Hence to the degree that the environment of the organization allows, organizations tend to shift their compliance structure from incongruent types and organizations which have congruent compliance structures tend to resist factors pushing them toward incongruent compliance structure (1961: 14).

Although Etzioni's discussion of subcollectivities does not deal directly with cliques as defined herein, it does imply both various motivational bases for their formation and influences on their subsequent structures.

Size

Size refers to the number of members in an organization. Its significance as an important organizational variable can be found in Simmel's (1950) writing. Size affects not only characteristics of organizations, but also the informal structure; size is therefore considered one of the main organizational influences on informal structure in this present study. Organizations are classified according to two types—large and small. Small organizations are those with fewer than 500 members and large ones those with more than 1,000 members. Organizations with fewer than fifty members are not included.[4]

[4] Ingham (1970) pointed out that classification of organizational size has often been arbitrary. He argued that this is unnecessary and presented Caplow's classification system as one means of dealing with the problem. Caplow's scheme, which includes four categories for classifying organizations, is based on the criterion of interaction possibilities. Small organizations are those in which all members can develop direct relationships with all others and include between three and thirty members. Medium-size organizations are too large to permit direct re-

Based on Blau's propositions (1970), the following formal characteristics are assumed when discussing the two size categories. Large organizations[5] tend to be more structurally differentiated than small ones. Large organizations are considered to have a large number of (a) official occupational positions, (b) individuals in each of these positions, (c) hierarchical levels, (d) sections per division, and (e) a large administration component in order to effect coordination. Discussion and propositions on the effects of size on clique formation and subsequent structure is more complex than the discussion of the other two structural variables—compliance and mobility—because size includes the additional characteristics listed above, which are actually a set of intervening variables. Many of the effects of size are indirect.

Blau's formulation will be kept in mind when discussing the modifier effects of size on clique formation and structure. Differences in size, therefore, are not proposed to lead to special clique types, but rather to modify types determined by compliance and mobility variations.

Informal Clique Structure

Informal organizational structure includes many relationships between people and groups. The focus here is limited to an examination of the formation of cliques within organizations. A clique is defined as a subset of members who are more closely identified with one another than with the remaining members of the group and who exchange something among themselves (this exchange can be referred to as the content of the relationships and may be information, affect, friendship, and so forth). In this article cliques refer only to groups in which members know one another; chains of relationships will therefore be excluded (that is, relationships in which individuals are related to others through others).

The definition of clique is limited to face-to-face groups, not because there is no theoretical interest in an expanded definition, but because of the limited scope of this present article.

The following clique characteristics are examined:

(1) Organizational clique density, the proportion of people who belong to cliques over the total number of people within the organization.

(2) Openness, the number of reciprocal relationships people within a given clique have with people outside of the clique (two slightly different indicators of openness are (a) the proportion of isolates in a clique—individuals with no relations outside of the clique, (b) and the total number of relationships members have outside of the clique).

(3) Interrank membership, the degree of inclusion of members from different status levels of the formal organization; operationally, the number of formal status levels present in any clique over the number of formal status levels present in the organization.

(4) Intraclique hierarchy, the number of status levels existing within a given clique; the status structure of the clique, regardless of the formal statuses of clique members.

(5) Interhorizontal status membership, the number of occupational categories found within a given clique; operationally, the number of formal occupational categories present in any given clique over the number of formal occupations and categories in the organization.

(6) Size, the number of members in a clique.

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lationship for all members with one another, but small enough for one or more members (usually the leader or leaders) to interact directly with all members. The number of members ranges from thirty to 1,000. Large organizations, which range from 1,000 to 50,000, are too large for any one member to interact directly with all members, but small enough for the leader to be recognized by all of the others. Giant organizations are those with more than 50,000 members and have leaders recognized through the mass media. Using Caplow's focus on interaction possibilities, small refers to organizations between fifty and 500 members, which actually represents the lower half of Caplow's medium category. Organizations of less than fifty are not included. Large refers to organizations over 1,000, which corresponds to Caplow's large category.

[5] Readers are reminded that organizations as discussed in this article may refer to subdivisions of larger organizations; organization refers to a single plant.

(7) Goals and motivational base, the reason for the clique's formation (to provide social support, to aid in more effectively getting work done, and so forth).

TYPOLOGY OF CLIQUE TYPES

A typology has been established in order to allow predictions to be made about the probable clique structure likely to appear in the cells of the figure. Taken together, the three variables—compliance, mobility, and size—yield eighteen different combinations. All of the combinations are logically possible; the eighteen types, however, are not equally likely to occur empirically.

There are essentially five types of cliques: (a) coercive, (b) normative, (c) high-mobility utilitarian, (d) seniority utilitarian, and (e) no-mobility utilitarian. The remaining cells are either empirically scarce or nonexistent. (Thus, only five of the cells are shown in the figure.)

Similarly, only one normative clique type is proposed. The relationships between normative compliance and mobility are complex and often lead to very special cases. It would be difficult, for instance, to develop generalizable propositions about normative no-mobility system cliques as opposed to normative mobility system cliques. At this stage it is fruitful to start by developing propositions that hold for normative compliance systems in general. Size, as with the coercive clique type, is viewed as modifying the emergent clique structure and not as having a major effect on the motivation for clique formation.

In contrast to coercive and normative compliance systems, utilitarian systems do not have a characteristic clique type. Mobility type is the main determinant of both motivation for clique formation and the emergent clique structure in utilitarian systems. Among utilitarian organizations, all three types of mobility structures are found in abundance when compared to coercive

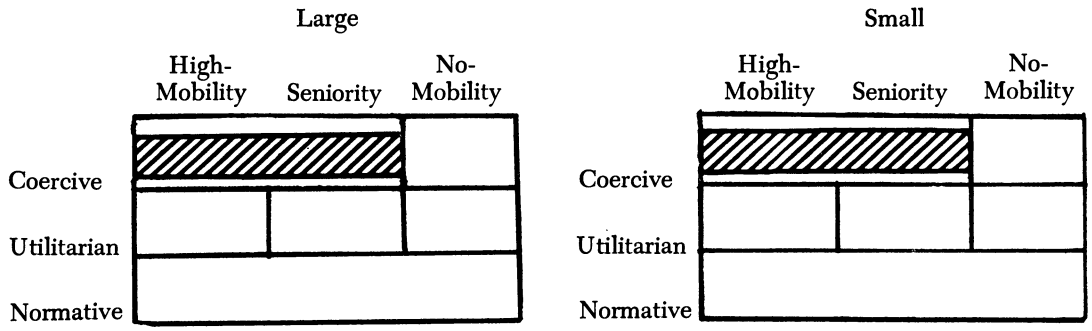

FIGURE. A TYPOLOGY OF CLIQUE TYPES

Organizational size, which acts as a modifier of clique structure, does not directly affect motivation for clique formation. Thus, the effects of size will be discussed only when size is thought to affect the structure of one of the five clique types discussed. The matrices of the figure will, therefore, not be discussed separately.

Although the coercive row of the figure includes six different cells, only one kind of coercive clique exists, since there are none or few high-mobility coercive systems or seniority mobility coercive systems; thus, a coercive system refers to a no-mobility system.

compliance systems, which are essentially no-mobility, and to normative, which are special cases. In addition there is an overwhelming influence of type of mobility structure on member orientation in utilitarian compliance systems due to money being a primary motivator and mobility the determinant of amount of money. Size exerts considerable influence on the three utilitarian cliques of the mobility type; its effects are primarily in terms of limiting conditions for clique structure, however, not on motivation for clique formation. The result is that the three remaining clique types are referred to as (a) high-mobility utilitarian cliques,

(b) seniority utilitarian cliques, and (c) nomobility utilitarian cliques.

Each of the clique types will be explained in terms of (1) the motivational base for formation and (2) the emergent structure, including organizational clique density, clique size, interrank hierarchy, openness, and interhorizontal membership. Along with a discussion of the propositions related to each clique type, examples from the organizational literature are given. Where this is not possible, common experience examples are presented.

The table presents a summary of clique characteristics. The purpose of developing such a typology and its associated propositions is to stimulate much-needed empirical work in this area. Such studies can help in the development of an integrated conceptual framework for understanding the relationships among a broad range of organizational variables.

COERCIVE CLIQUE

Motivational Base for Clique Formation

Within a coercive system, members (prisoners, for example) are usually alienated and often in open conflict with the formal organization. The formal organization must threaten physical harm in order to control its members. Coercion cannot be efficiently used to control more than a limited number of activities due to the relatively close supervision and surveillance required. To support counterorganizational norms and attitudes and to control activities not directly controlled by the coercive formal organization, an elaborate informal system of control thus tends to develop. Cliques make up one of the units within this informal subcollectivity.

Members of coercive organizations tend to form cliques to gain power (or counterpower) and to aid in coping with their alienation and with the hostile environment.

These cliques become part of what Etzioni refers to as the organized subcollectivity which is segregated from the formal organization and tends to penetrate many spheres of activities, including all of the expressive activities and many of the instrumental.

Coercive Clique Structure

The table summarizes the proposed structural characteristics of coercive cliques. The high organizational clique density is due to the importance of clique membership as an almost necessary means for coping with the social environment. Coercive systems are usually total institutions in which the scope of control of the formal system is limited by its resources; such limitation is often reflected in an inmate/guard ratio. The control of the remainder of the participants' lives tends to be by an elaborate informal subcollectivity. In such systems individuals are strongly pressured to belong to a clique and the result is a high organizational clique density. This proposition is consistent with the findings of a study of a prison community.

> Each inmate is forced to possible participation in conning (it embodies a distinct code of behavior, a set of rules and regulations and a guiding principle for the maintenance of status within the prison community) by virtue of his role as convict (Haynor and Ash, 1939).

Only the lowest participants in coercive organizations who are part of the segregated subcollectivity tend to be members of cliques; hence, the interrank membership is low. The interhorizontal membership, however, is high; formal occupational categories of members tend to be part of what is imposed upon them by the formal system. Other than providing possible propinquity, formal occupational categories tend to have little effect on clique membership. Unlike the case in noncoercive organizations where occupational category may actually be related to self-image, an inmate's formal occupational position (the kitchen, library, or fields) has little effect on which clique he belongs to back at his cell block.

The tendency for cliques in coercive organizations to be formed with a motivational base which is large in scope of control and which tends to fulfill defensive needs leads to the need for a fairly differentiated authority structure. The subcollectivity has to be able to control a large number of activities and to provide support and defense for its members. This differentiated control structure is evident within the subunits of the subcollectivity, namely, the clique with its high intraclique hierarchy. Hayner and Asch

TABLE. CLIQUE TYPOLOGY

Clique type	Reason for formation of clique	Organizational clique density	Clique size	Interrank membership	Inter-horizontal status membership	Intraclique hierarchy	Degree of openness
Coercive clique	Defensive support	High	Large	Low	High	Many levels	Low
	Internal clique control						
Normative clique	Friendship	Low	Small	High	Low	Moderate number of levels	High
	Affiliation						
High-mobility utilitarian clique	Instrumental mobility	High	Small	High	Low	Many levels	High
	(Instrumental)						
Seniority utilitarian clique	Affiliation	Moderate	Moderate	Moderate	Moderate	Moderate number of levels	Moderate
	Friendship						
No-mobility utilitarian clique	Affiliation	Low	Large	Low	High	Few levels	Low
	Friendship						

(1939) found support for this contention in their study: "Within the prison community there is clear-cut evidence of class division. These divisions are based on the relative influence and authority of each class." These same control and defensive needs lead to cliques which are closed.

The pressure towards large cliques which tends to exist in coercive organizations derives primarily from the large scope of activities under the control of the informal subcollectivity and from the inherent conflict between the formal organization and those being coerced. Large cliques facilitate subcollectivity effectiveness and efficiency in controlling its members. Large cliques also help individuals achieve more counterpower to defend themselves against one another and/or the formal organization.

NORMATIVE CLIQUE

Motivational Base for Clique Formation

In a normative compliance system many of the participants needs tend to be met within the formal work setting; thus, there is a high degree of overlap for relationships and groups which fulfill both instrumental and expressive needs. In terms of emergent subcollectivities, the tendency is for formal subcollectivities to be identical to the informal. This leads to the proposition that there is little pressure in a normative compliance system for clique formation outside of formally defined relationships. As a result, friendship cliques and work groups show a high degree of overlap.

Clique Structure

As Etzioni (1961) suggests, normative organizations tend to be highly integrated (interrank) and amalgamated (instrumental and expressive), leading to a tendency for work groups to overlap with friendship groups. Relative to participants in other types of compliance systems, there is little pressure for the formation of cliques outside of the work group. Most members' needs are therefore met within the work group setting. It is suggested here that organizational clique density is moderate in normative organizations and that the overlap between the work group and the friendship group is evident outside of the work setting.

"We expect occupational communities—that is, social life on the job and off the job, based on work relations among co-workers—to be more common in professional (normative) organizations than in utilitarian ones (Weiss and Jacobson, 1955)." They also present additional evidence that normative cliques fulfill friendship needs and overlap with work groups. Only 25 percent of blue-collar workers are members of primary work groups, while 82 percent of professionals are members of such groups. Another study by Mishler and Tropp (1956: 195) indicates that 50 percent of the professionals in a psychiatric hospital, compared to 19 percent of the blue-collar workers (attendants), have either regular or frequent interactions with one or more persons in nonjob-related situations either during or after the working day.

Several attributes of a normative organization account for the proposition that clique size tends to be small. One such factor is the general lack of instrumental motivation for clique formation. Cliques emerge for more intimate friendship needs. In addition normative organizations tend to lack the large work groups which are often found in utilitarian organizations. The high overlap of the work groups and clique in normative organizations is reflected in the clique's high interrank membership and low interhorizontal membership.

Normative organization work groups often include interstatus level members. The relative lack of conflict, manifest or latent, between formal hierarchical levels and the associated high level of commitment to the organization at all levels removes constraints against interrank membership. The interhorizontal status membership is low because normative work groups are generally found around single occupational categories, for example, work groups of researchers or faculty from the same department in a university.

Although actual interhorizontal membership is low, the cliques tend to be fairly open, so that more relationships tend to exist outside of the cliques than in other types of organizations. This is related to the tendency

for most members of the organization to be integrated into the organization and to have a high level of commitment, making it easier for functional relationships throughout the organization to become friendship relationships.

The internal clique hierarchy is moderate in normative organizations. It is characterized by the explicit minimization of formal status differences, such as among faculty members and medical doctors. There is also an opposite tendency towards acute sensitivity to status differences on the implicit level, which is often manifested in subtle ways when members of a committee give deference to a senior person, for instance. The fact that cliques in normative organizations tend to include members from different statuses leads to the tendency for intraclique hierarchical levels to reflect the implicit sensitivity to formal status differences. Due to the opposite tendency also present in normative organizations (to explicitly minimize status differences), the prediction is for moderate intraclique hierarchies.

Organizational size does not tend to have much of a modifier effect on the motivational base or the structure of normative cliques. The effects are reflected in the clique characteristics which are directly related to formal work group characteristics which are changed by size. Organizational size which affects work group size (Blau, 1970), for example, would also tend to affect clique size.

HIGH MOBILITY UTILITARIAN CLIQUE

Motivational Base and Organizational Clique Density

Presthus' (1965) analysis of organizations and individual modes of adaptation underscores the strong instrumental pressure in high mobility systems. The organization is oriented towards getting ahead; relationships become the means to an end.

> The individual becomes extremely sensitive to the opinions of his immediate superiors who control his life choices. In some bureaucratic situations, including academic, the apprentice must be sponsored by a patron who insures the advancement through assiduous (however muted) negotiations with other influential seniors.

Cliques play a key role in helping organizations and their members facilitate moving upward.[6] Cliques provide a means for important reference group needs to be fulfilled. In order to become properly socialized and to move upward in the system, lower status members must be visible (for anticipatory socialization to take place) and to view the norms and outcomes of higher status members. Due to the system's dependence upon having lower status members strive for and achieve mobility, the higher status members are pressured to facilitate this process by associating with the lower status members—both to socialize them properly and to evaluate them informally. Thus, relationships, including informal clique relationships, become instrumental for both high and low status members and the interrank membership is high. Because these relationships are related to success in the system, members of such systems are urged to maintain continual informal relations; organizational clique density therefore tends to be high.

Organizational size affects the organization clique density. As a result small organizations tend to have a higher density than large ones. In large organizations with large subunits, members tend more to refrain from involvement with any clique. It is easier in large units for isolated individuals to go unnoticed and uninfluenced by cliques. In small organizations isolated people become more visible. Members become less alienated and thus more involved, both instrumentally and expressively, on the job and are pressured to be part of a clique.

Organizational size also affects interrank membership, with large organizations having proportionately less than small organizations. The increased horizontal (occupational positions) and vertical (authority levels) differentiation in a large organization makes it

[6] Burn's (1955) use of cabal is quite similar to the high mobility utilitarian clique. He states that in cabals (1) there are real status distinctions involved between cabal members; leadership is important and proximity to the leader is important; (2) the function of cabal membership is neither to redress occupational failure, nor to gain reassurances, but to promote further occupational success outside the cabal; and (3) the relationship of the cabal to the outer world is not one of withdrawal or rejection, but of power; the cabal attempts to restructure situations and values in the interest of its members.

possible to think of clique formation as occurring within squares created by the criss-cross pattern of these vertical and horizontal dimensions of differentiation. There are many hierarchical levels. At each level there are many occupational positions within which there are many individuals. Cliques tend to form among people of the same occupation and of the same level. Since there are many more levels in large organizations, the presence of a given number of levels within a clique from a small organization and the same number in a clique from a large organization represents a proportionately flatter clique in the large organization.

In shifting the focus to pressure within small organizations which influence the tall interrank structure of cliques, consideration should be given to the reduced tendency in small organizations for interstatus conflict. Because the members of small organizations tend to identify more with the organization, Porter and Lawler (1965), and Etzioni (1961) propose that hierarchical cohesion is related to lower participants positive involvement in the organization. Since these members experience authority in a personal way, there is less tendency towards interstatus segregation and an associated greater tendency for cliques to cut across status lines. Density tends to be high.

Clique Structure

A good deal of interaction is required among members in order for the clique to fulfill the socialization and evaluation needs of both the higher and lower status members. The low status member (for instance, a junior executive who wants to move up to middle management level) must be in a clique with members from middle management. The low status person can, as a result of interaction with them, learn by observation the intricate patterns of higher status social relations, expected behaviors, and attitudes. Acquisition of such information is usually indirect; it requires fairly close contact with the individuals who possess the information. Higher status clique members whose own mobility may be partially dependent on bringing good men up the system are pressured to groom and judge these prospective climbers. This process is most easily facilitated in small cliques and, in many ways, resembles that of Dalton's (1959) vertical symbolic cliques.

Size exerts an additional effect in large organizations for narrow interhorizontal status membership.

> Larger offices or divisions contain comparatively many employees in nearly every occupational specialty, providing a congenial in-group of colleagues for most employees—often not available in small organizational units—simultaneously contain relatively great variety of different specialties. . . . However, the greater opportunity for social interaction with a colleague in-group in large offices may prove so attractive that social contact with persons from different specialties are rarer there than in small ones (Blau, 1970).

Blau's statement summarizes the rationale suggested here for the tendency of cliques in large organizations to have low interhorizontal status membership.

Small organizations on the other hand may only have one or two members of the same occupational category, thereby necessitating cross-status membership within cliques.

High-mobility utilitarian organizations tend to exert a pressure on the degree of clique openness. Members of high-mobility organizations are urged to develop relationships outside of their immediate clique. Clique members tend to be on the lookout for useful friendships, especially among organizational members higher in the system. Such cliques, therefore, tend to be open.

Size affects the degree of clique openness. Cliques in small organizations are more open than those in large ones. In small organizations functional instrumental interaction outside of the clique has a greater tendency to develop into more personal and friendly types of interaction, thus leading to more open cliques.

SENIORITY UTILITARIAN CLIQUE

Motivational Base and Organizational Clique Density

Merton, in his discussion of bureaucracies, describes an essentially seniority utilitarian system and offers an insight into the probable characteristics of its cliques:

> Functionaries have the sense of a common destiny for all those who work together. They

share the same interests, especially since there is relatively little competition insofar as promotion is in terms of seniority. In-group aggression is thus minimized and this arrangement is therefore conceived to be positively functional for the bureaucracy (1957: 255).

The decrease of instrumental pressure for mobility in seniority systems enables needs for friendship or affiliation to emerge as determinants of clique formation. Merton refers to the *esprit de corps* found in bureaucratic informal groups. Since some mobility is possible, some instrumental reference group needs require fulfillment. It is the slight mobility in these systems, however, which leads to moderate interrank clique membership and a moderate intraclique hierarchy. Old timers tend to be of a higher status, both formally and informally. The table presents the remaining seniority clique characteristics.

Clique Structure

Two opposing forces operate on clique size in seniority organizations. One pressure is exerted by the members' anticipatory socialization needs, which lead to the inclusion of clique members from more than one status level. The other pressure is the need for socio-emotional rewards from fellow workers. Even though there are different formal statuses present in a seniority organization clique, they tend to be less important than in a high-mobility system because (1) the criteria for higher status has more to do with how long one has been in the company than with competence and (2) members are not pressured to participate in instrumental grooming activities and activities designed to impress them. These two factors make the intrastatus hierarchy moderate.

Interhorizontal clique membership. The amount of interhorizontal status membership in seniority organization cliques tends to be moderate. On the one hand position categories are irrelevant to fulfillment of socio-emotional friendship needs, hence leading to some interhorizontal memberships. On the other hand they are relevant to fulfillment of the anticipatory socialization needs leading to less interhorizontal membership. Again, if it is assumed that both of these needs are found in at least some of the members, the result is a structure that reflects both sets of needs. Thus, interhorizontal status membership is moderate.

Size influences interhorizontal clique membership, since large organizations have more individuals in the same horizontal status, increasing the possibility that cliques will form within one horizontal status. In small organizations such cliques may be structurally impossible.

Openness. The slow mobility—a consequence of time—in seniority organizations tends to put little pressure on clique members to develop instrumental relationships outside of the clique. Some factors tend to decrease the number of isolates, however. Relationships which tend to continue with old friends who have moved up in the system and into new cliques, as well as the development of acquaintances and friends due to interaction with people over time, are two examples. Thus, the level of clique openness is moderate.

NO-MOBILITY UTILITARIAN CLIQUE

Motivational Base

In no-mobility utilitarian organizations two factors influence the motivational base for clique formation. First, reference group needs diminish as the members become satisfactorily adjusted to their positions. Second, remaining reference group needs tend to exert pressure on inclusion of members of the same status level only. Thus, motivation for cliques which fulfill reference group needs tends to be low and when cliques are formed, they tend to include only members from the same status level.

Strong pressures are often exerted on members of no-mobility organizations to form cliques which fulfill reference group needs running counter to the needs and goals of the organization. Much has been written about this phenomenon of work restriction, going back to the bank wiring room study by Roethlisberger and Dickson (1939). An examination is made here of the pressures which are normally present in a system to develop certain adaptive informal structures. Adaptive behavior is behavior on the part

of system members that is generally congruent with organizational goals.

Theoretical support for the affective motivational base of no-mobility cliques proposed earlier is found in Homans (1950). His supposition that people who interact frequently tend to develop positive sentiments towards each other supports the notion that, due to the lack of any instrumental mobility needs or defensive needs, no-mobility system members form cliques based on affective needs, or, in Homans' terms, positive sentiments. Although focusing primarily on the impact of mass-production methods on the plant's social structure, Walker and Guest's study, *The Man on the Assembly Line* (1952), supplies evidence for several of the proposed characteristics of no-mobility utilitarian cliques. Their work strongly supports the low organizational clique density proposition: "In our interviews these men exhibited little of what sociologists would call 'in-group awareness!'" Another study (Ingham, 1970) suggests that little interrank clique membership occurs in no-mobility utilitarian organizations. Only in small firms (under fifty members) did over 50 percent of the workers have a nonwork conversation with a foreman at least once a day; less than 20 percent of the larger firm workers reported such conversations. In no-mobility systems the lack of instrumental motivation for membership makes friendship needs the primary formation pressure.

Clique Structure

The no-mobility organization puts little pressure on members to have overlapping informal clique and reference group membership. Reference group needs tend to play a minor role in clique formation. The no-mobility participant is in a more stable environment as far as his own adjustment is concerned than either the high-mobility or the seniority system member. Once he learns the appropriate task behaviors, he does not have a strong need for a reference group for task-related functions. The resultant lack of pressure to be a member of a clique to fulfill instrumental needs tends to decrease organizational clique density.

Due to their differing motivational base, cliques in no-mobility organizations are usually under pressure to be widely inclusive. Low-status members without any chance for promotion form fairly large friendship cliques that provide a means for increasing the results of the present situation by providing socio-emotional rewards. Reference group needs probably influence size only to the extent that there is little pressure for reference groups to be membership groups. Thus, other factors, such as the need to increase the results of an interpersonal or social nature, become more important in determining the size of the clique.

Large no-mobility organizations have larger cliques than small organizations. The size effect is derived from the assumption that associations usually occur between like people and that potential is greater in large organizations for more similar people to be located in one place and hence for cliques to be larger.

The no-mobility utilitarian cliques tend to be less hierarchically structured internally than either of the other two systems—mobility and seniority. Formal hierarchical status difference among members is negligible, so that formal organizational status does not influence the creation of a parallel internal hierarchy. While differences are inevitable in any social system, no-mobility system cliques tend to develop less status-level differences.

The no-mobility organization clique, in contrast to that of the high-mobility clique, is under no pressure to fulfill mobility needs and thus tends to include members from a wider range of official occupational positions. Criteria other than occupational position become more salient influences on clique membership.

Another size influence which is comparable to seniority cliques is on interhorizontal membership. In large organizations more individuals are in the same horizontal status and thus the possibility that cliques will form within one horizontal status is greater than in small organizations in which such cliques may be structurally impossible.

Members of no-mobility organizations tend not to be interested in instrumental relationships, since they offer very little possibility of changing the individual's status in

any way; once a member is satisfactorily adapted to a clique, he is under no pressure to look for other relationships. This tends to create cliques which are closed, thus having proportionately a large number of isolated individuals.

CONCLUSIONS

It has been suggested that the variables of mobility and compliance have direct effects on the motivation for clique formation and that mobility, compliance, and size affect clique structure by creating constraints within which clique structure emerges. The effects of these variables are reflected in the informal structure of organizations primarily as unanticipated consequences. Eventually, the effects of formal structure on informal structure can be dealt with explicitly in the design and redesign of organizations.

In the past research on informal structure in large organizations has been handicapped by the lack of research technologies. As Kadushin (1971) states in his review of sociometric techniques, sociograms of groups with more than fifty individuals become increasingly inaccurate and difficult to do as the number of individuals increases. This has made it difficult to use sociometry for examining informal clique structure in larger systems. One study that used this approach (Weiss and Jacobson, 1955) was able to map the work group structure, but not the informal clique structure.

Fortunately, Kadushin and his associates have recently developed a computer program, SOCK (a sociometric analysis system), which provides a means for sociometrically mapping large networks of people and for identifying cliques. With the SOCK program, it is now possible to study the informal structure of systems as large as 10,000 members. Kadushin is presently using SOCK to examine macro-level clique structure in a series of multinational studies. His success suggests that it is a worthwhile procedure for empirically testing the propositions formulated in this article. Such a study might take the form of the comparative study of fifty-one different work organizations by Pugh *et al.* (1968) in England in which they investigated five primary dimensions of organization structure. Payne *et al.* (1971) more recently investigated formal work group structure and organizational climate as affected by overall organizational structure. As with the Pugh *et al.* (1968) study, they used a comparative approach to test a set of suggested relationships. They found evidence to support these relationships. In a similar fashion the proposed relationships in the present study could be tested.

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