Discussion of organizational theory and its implementation

Floyd Alan Joramo

The University of Montana

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A DISCUSSION OF ORGANIZATIONAL THEORY
AND ITS IMPLEMENTATION

By
Floyd A. Joramo
B.S., University of Montana, 1966

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Approved by:

[Signatures]
Chairman, Board of Examiners

[Signature]
Dean, Graduate School

[Signature]
Date
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PART ONE
INTRODUCTION

Organizations and their actions have a large and continuing impact upon the world of men. Indeed, it is hard to visualize a world in which there would be no organized human endeavor. Unfortunately, society's understanding of organizational behavior has yet to equal organizational import. Man has tried to understand this behavior, but his success has been limited and fragmented. However, an important turning point toward a more comprehensive understanding of organizational behavior has been reached in Organizations in Action by James D. Thompson. His work, based on the open-system school of organizational thought, perceives an organization as survival-oriented and interdependent with its environment.\(^1\) Therefore, organizations are grounded in uncertainty and it is difficult to predict their reactions. Thompson's postulations develop this concept. He "enables us to conceive of the organization as an open system, indeterminate and faced with uncertainty, but subject to criteria of rationality and hence needing certainty."\(^2\) If an organization is thought to be rational and to have a need for certainty, Thompson can offer propositions as to how and when an organization will act. The effect of Thompson's work is best summarized by S. H. Udy. "The effort meets with mixed

\(^{1}\) This paper does not discuss the open-system vs. closed-system controversy. However, if the reader wishes to familiarize himself with this topic see Thompson's Organizations in Action (New York: McGraw-Hill Book Company, 1967), pp. 4-7.

\(^{2}\) Ibid., p. 13.
success.... But such problems hardly mar the achievement of this book in synthesizing a variety of theoretical viewpoints and indicating a number of new directions to follow. It could be something of a landmark."

**Purpose and Scope**

It is the purpose of this paper to assess the validity and utility of several of Thompson's propositions by determining whether two very different organizations—the National Farmers' Organization and an Army Division—can be described by them. The author does not have complete knowledge of the functions of all parts of these two organizations. Therefore, this study is limited to the author's personal observations of two specific organizational parts; namely, the Field Staff of the National Farmers' Organization and the G-1 Office of an Army Division. The author has thorough knowledge of each through his experiences as a G-1 Manpower and G-1 Readiness Officer for a two-year period, during his three and one-half years in the U.S. Army; and as Field Staff representative for the NFO during a three-month summer job. If these organizational segments uphold Thompson's propositions, it is logical to speculate that, in their entirety, both organizations will also support them. There will, no doubt, be differences in the degrees to which other parts of these two organizations uphold them because of variations in function, structure, and objectives. The value in assessing Thompson's propositions—if they do represent reality—is to give the science of organizational management an important tool with which to understand, interpret, and predict an organization's actions easily and accurately. This paper seeks to establish the validity and utility of

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certain of Thompson's propositions in order to provide part of an assessment of this tool for the analysis of organizational behavior.

Because of the large number of propositions that Thompson has formulated, it is unrealistic to attempt to analyze all of them completely here. Therefore, I decided to analyze only the first five of Thompson's propositions. The important point of this paper is not to determine how many propositions can be analyzed but to ascertain what information is derived from those that are explored. From this examination it should be possible to extrapolate the validity and utility of the remainder of Thompson's propositions.

This paper is composed of three parts. Part One includes the introduction and purpose of the paper, and provides an outline of the organizations to be analyzed, in three chapters. Part Two is the main body of the paper in which Thompson's work is an analysis of the two above-mentioned organizational sections. It is necessary to discuss Thompson's first proposition for a complete chapter in Part Two in order to clarify his complicated terminology and to set the stage for the ensuing propositions. Once this is accomplished, the remaining four propositions will be covered in a much more abbreviated manner within a single chapter. In effect, once one proposition is clearly understood, it then acts as the key to an understanding of the others. Part Three includes the conclusions drawn from the analysis in Part Two and a selected bibliography. This discussion does not include specific recommendations for the two analyzed sections of the organizations; it rather involves a discussion of Thompson's propositions on organizational theory and their implications for the two organizations.
CHAPTER I

THOMPSON: A BASIS FOR ANALYSIS

Rationality

A condition which Thompson places upon all of his propositions is found in the phrase, "Under norms of rationality."⁴ By listing the five propositions to be covered by this study, it is possible to clarify this all-important condition. These first five propositions are: (1.) Under norms of rationality, organizations seek to seal off their core technologies from environmental influences; (2.) Under norms of rationality, organizations seek to buffer environmental influences by surrounding their technical cores with input and output components; (3.) Under norms of rationality, organizations seek to smooth out input and output transactions; (4.) Under norms of rationality, organizations seek to anticipate and adapt to environmental changes which cannot be buffered or leveled; (5.) When buffering, leveling, and forecasting do not protect their technical cores from environmental fluctuations, organizations under norms of rationality resort to rationing.⁵ A norm is a standard of some society. Thus, an organizational action can be judged on the criterion of rationality only as its society views it. The society of which the organization

⁴Thompson, Organizations in Action, p. 19.
⁵Ibid., Chapter 2, pp. 19-23.
is a part judges its actions; it makes the distinction between the accepted and the unaccepted. Needless to say, various societies will not always rule identically upon the rationality of an organization's actions—what is rational in one society may be illogical in another. Thompson's propositions probably depict the actions of American organizations accurately as that is his society. Were he attempting to describe the actions of organizations from a different society, the likelihood of his being in error would increase significantly.

Now what exactly does this phrase "norms of rationality" mean in the context of his propositions? An organization operates within an environment which poses many uncertainties, but there is a need for certainty if an organization is going to achieve goals and survive. Therefore, an organization imposes standards of rationality on its actions to reduce this uncertainty. The part of Thompson's propositions following the phrase, "Under norms of rationality," describes an action that an organization will follow with the approval of its society while it strives logically to find certainty within its environment. There will be times, no doubt, when the uncertainty of the environment may overwhelm an organization, causing it to act in an illogical manner. Under such conditions, an organization may not follow Thompson's propositions. Most of the time, however, if uncertainties are not too great, an organization will seek certainty by following actions which correspond to its society's standards of rationality.
Value of Comparison

Many of the works on organizational theory are based upon the study of one or several similar organizations. The resultant weakness is best described by Amitai Etzioni. "Many case studies of organizations close with some universal statement about organizational variables 'based' on the study of one organization. Thus the lack of comparative models leads not only to overgeneralization but also to undergeneralization."\(^6\)

This paper will attempt to avoid this weakness by analyzing two very dissimilar organizations in order to discern the existence or non-existence of the common characteristics suggested by Thompson. The characteristics of these organizations differ decidedly in that one, the G-1 Office of an Army Division, is highly structured, fairly old, and assured of its continued existence; the other, the Field Staff of the National Farmers' Organization, is less structured, fairly young, and less certain of its own (or of the larger organization's) continued existence in a hostile environment. If both of these organizations react in the same way, in various situations, we can then draw some conclusions as to the nature of all organizational behavior. (It should be noted, however, that even if two organizations react in the same way, this does not conclusively prove—but does support—the proposition in question.) Caution should be used; even if a proposition has been upheld by the investigation of a number of organizations, there is no assurance that it will apply to another

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organization. A real danger exists in that one might force an organization to conform to a model, rather than build a model to conform to an empirical reality. It is best to keep organizational theory general and flexible, using specifics from a single organization only as illustrations of the theory.
CHAPTER II

EXPOSITION OF THE G-1 OFFICE

The Chain of Command of a Division

A division is the biggest combat unit of the Army. It is a completely independent organization and can function on its own for an indefinite period of time. The strength of any army is measured by the combat ability of its divisions and their number. Thus, the division is the functional unit of the army.

Figure 1 shows the formal chain of command of the U.S. Army down to the level of the division. This organization is primarily used in the United States and is not necessarily used in foreign zones of operation.

The Commander of the United States Army is the President, who is a civilian, as are the Secretary of Defense and the Secretary of the Army. From the Chief-of-Staff on down it is a completely military organization. The commander of a division is usually a major (two-star) general.

The chain of command is a formalized part of the organization. All orders and information are expected to flow up and down the chain of command as shown in Figure 1. Any major deviation by any of the military commanders from this chain of command is punished by reprimand or removal. The mission of all levels of the U.S. Army is formally written, as is the chain of command; every member of the military organization knows his role
FIGURE 1

THE CHAIN OF COMMAND OF A DIVISION

Commander-in-Chief:
President of the United States

Secretary of Defense
and
Secretary of the Army

Chief-of-Staff
U.S. Army

Fourth Army:
Covers a Geographical Part of the U.S.

III Corps:
Corps Usually Control Two Divisions

Division
and his function in the chain of command. Although there is usually an informal chain of command that springs up from time to time, it has no bearing on this discussion.

The Structure of a Division

Figure 2: shows the major parts of a division. The smaller units of the division, such as the company and the platoon, are not included because they are not necessary to this analysis.

The mission of the three Brigades is to confront the enemy and defeat him through the use of close combat and fire control. They are made up of Armor (Tank) Battalions and Mechanized Infantry Battalions. The Brigades are so built that they serve as building blocks in which the Armor and Infantry Battalions can be combined to arrive at the correct proportion of the two combat arms at the objective.

Division Artillery gives direct fire support to the three Brigades. Each of the three Brigades has an Artillery Battalion in direct support of its Battalions. One Artillery Battalion, with heavier guns, generally supports the whole Division, as does a Missile Battalion.

Support Command gives direct logistical, medical, and transportational support to all of the Division. It also has an Administration Company in which are located most of the clerical workers in the Division.

Division Troops consists of a group of units that also give direct support to all the elements within the Division. The Engineer Battalion primarily supports the three Brigades and Division Artillery in the accomplishment of their missions. The Signal Battalion and Military Police Company support Division Headquarters in maintaining contact with and
FIGURE 2

STRUCTURE OF A DIVISION

- Special Staff
  - Inspector General
  - Judge Advocate
- Division Command Section
  - Commanding General and Aides
  - General Staff
  - Chief-of-Staff
    - G-1
    - G-2
    - G-3
    - G-4
- 1st Brigade
  - 3 Combat Battalions
- 2nd Brigade
  - 3 Combat Battalions
- 3rd Brigade
  - 3 Combat Battalions
- Division Artillery
  - 5 Artillery Battalions
- Support Command
  - Maintenance Battalions
  - Engineer Battalion
  - Support Transport Battalion
  - Signal Battalion
  - Medical Battalion
  - Military Police Co.
  - Adminis. Company
  - Headquarters Company
  - Data Process Detachment
order in higher and lower units. The Headquarters Company houses all of the personnel in the Divisional Staffs as well as the Commanding General himself. Its primary mission is to provide the necessities of life to the Headquarters and to provide transportation for it. The Data Processing Detachment is a new unit which provides mobile computer service to the Division; it is mostly used in the personnel and logistics fields.

The Headquarters of the Division is composed of two staffs. The first, the Special Staff, works directly for the Commanding General and reports directly to him. It consists of the Staff Judge Advocate, who is responsible for all matters dealing with military law throughout the Division; and the Inspector General, who reports all complaints and wrongdoings throughout the Division and also inspects for defects within the organization. The General Staff is responsible for four different areas of responsibility and is coordinated by and reports to the Chief-of-Staff, who, in turn, reports to the Commanding General. The G-1 is responsible for everything that has to do with personnel; the G-2 is responsible for intelligence gathering and use; the G-3 plans all operational missions and coordination throughout the Division; the G-4 is responsible for the logistics supply of the Division. All of the Special and General Staff have no authority over the line managers, but can only advise the Commanding General of the correct policies and procedures.

Areas of the G-1 Office

Now that the organization of the Division has been outlined, the discussion of the G-1 Office will follow. Figure 3 shows its various areas.
The mission of the G-1 Office is to provide advice and counsel to the Division Commander on all personnel actions which occur in the Division. It also provides service and help to the entire Division in all areas dealing with personnel except military law and complaints, which go to the Special Staff. The G-1 Officer, Adjutant General, Finance Officer, Division Chaplain, Surgeon, and Provost Marshall are all of the same rank, but their chain of command goes through the G-1 Officer. All of these men are regarded as Staff Officers.

The following is a brief statement on the mission of each element under the G-1 Office. Each element has its own office.

Adjutant General: Controls enlisted placements and keeps all personnel records within the Division. He heads a 450-man section.

Finance Officer: Controls all payrolls and monies within the Division; heads a 100-man section.

Provost Marshall: Controls all police transactions within the Division; commands a 200-man section.
Division Chaplain: Advises the G-1 of spiritual needs within the Division; heads a 10-man section.

Division Surgeon: Advises the G-1 of the medical needs within the Division; is a medical doctor and heads a 5-man section.

Headquarters Commandant: Responsible to the G-1 for the upkeep of the Divisional Headquarters; heads a 5-man section and is a Captain.

Headquarters Company Commander: Responsible for the operation of the Headquarters Company; is not in the formal chain of command, but is placed under the G-1 for supervision.

The following individuals work under the G-1 Office.

G-1 Officer: Is responsible to the Chief-of-Staff for the entire operation of the G-1 Office as well as subordinate offices.

Assistant G-1: Coordinates and supervises the work of the G-1 Office.

Assistant G-1 (Manpower): Determines the placing of all Officer and Warrant Officer replacements, keeps records on position and performance of all Officers and Warrant Officers in the Division, keeps higher headquarters informed on the personnel needs of the Division and functions as an informal watchdog over the enlisted men's placements by the Adjutant General. This job also requires constant communication with all lower headquarters.

Assistant G-1 (Readiness): Prepares reports to higher headquarters as to the personnel situation of the Division. This job also requires him to help the Manpower Officer determine personnel shortages throughout the Division.

Assistant G-1 (Safety): Is responsible for ensuring that all Safety Rules and Regulations are observed in the Division, investigates accidents, heads a program designed to send a large amount of men to a local college and trade school to prepare them for a civilian occupation.

These positions are all that of Junior Officers, except the G-1 Officer who is a Lieutenant Colonel, and the Assistant G-1 who is a Major. There also are six to ten enlisted men who assist these officers.
CHAPTER III

ORGANIZATION OF THE NATIONAL FARMERS' ORGANIZATION

History

The history of the National Farmers' Organization (hereinafter referred to as the NFO) has been short and stormy. As an organization, it was formed in 1958 in the midwestern state of Iowa, and it has been only in the most recent years of its development that it has spread over the adjoining 47 states. The chief problem accounting for the NFO's existence is the low commodity prices for farm products; low price levels having been the rule since the early 1950s. The NFO was founded originally to use political processes, largely lobbying, as a means of bettering farm prices; it changed its emphasis to collective bargaining with food processors, however, when it found that politicians could not or would not help alleviate the farmers' basic problem of poor prices. In many instances, the problems of the more densely populated urban centers—with their large numbers of votes—interest the politicians far more than do the sparsely populated rural areas. Only in those states where large urban areas have failed to develop are politicians interested in the farmers' political power.

At various times since its inception, the NFO has called "holding actions" (strikes) against various food processing firms when collective bargaining has failed to bring about prices which the farmer judges as
fair. A holding action is just what the name implies: farmers hold their production off the market in an effort to force food processors to come to terms. Unfortunately, holding actions are often accompanied by NFO members destroying their commodities to show their dissatisfaction. The shooting of swine, dumping of milk, and burning of potatoes have been and are much more interesting to the public and the mass media than are the agreements reached through peaceful collective bargaining between the NFO and the food processing industry. Therefore, the NFO has gained a reputation of being a somewhat radical, destructive organization. It must be pointed out, however, that the NFO is following the principle of collective bargaining adhered to by labor unions and business concerns. The NFO is the tangible result of efforts by independent farmers to become organized in order to compete in an increasingly organized world.

The number of members in the NFO is a closely kept secret, as is usually the case in most organizations which are starting out in a hostile environment. A "bluff" is still employed when dealing with a food processor who does not know the number and strength of the NFO farmers who provide him with raw materials. It is known, however, that the NFO has become one of the largest farm organizations in America. At the NFO's last national convention it drew over 12,000 farmers from all parts of the country.

Farming has long been viewed by the American public as one of the most peaceful and non-aggressive areas of American society. Many people still think of an agricultural career as a peaceful and contented life close to "mother nature." In other words, farming is thought to be an institution which has not acquired the "dog-eat-dog" characteristics of
the rest of American society. However, the increasing migration of farmers from rural areas to urban centers, and the increasing size of each farm (production unit), are not indicative of a very peaceful or content industry.

**Mission**

The theory of the NFO is fairly simple. It does not buy or own anything; it merely acts as intermediary between the farmer and his market. It invokes a procedure used by labor, collective bargaining, to gain a better position for farmers in the American society. The farmer's right to use collective bargaining is guaranteed by the Capper-Volstead Act passed by Congress in 1922. If this process fails, then a holding action (strike) is called which forces the food processing industry to come back to the mediating table with a better offer in order to get the raw materials it needs to operate. The holding action is recognized as an extreme means to be used only after all other means are exhausted.

Once an NFO contract has been agreed upon between the farmer and the food processing industry, it has been noted that the market prices rise over the agreed base price because other food processors not in the agreement feel they have to pay more to attract commodities away from the contracted food processor. Thus, the non-member farmer may initially benefit more from the agreement than does the NFO member who is contracted at a set price. The following year, however, the NFO farmer can arbitrate for the highest price offered by other food processors. As is the nature of arbitration under collective bargaining, neither side will get exactly what it wants; each will compromise for something in between the two.
extremes. The important thing is that a base price has been established (which never existed before in agriculture) from which both sides can work out agreements to their mutual benefit.

Marketing is also an important part of the NFO program. Primarily, this means getting commodities from the areas where a surplus exists to those areas where the commodity is in demand. Thus, a complete knowledge of the national and international markets must exist in the NFO.

Structure of the NFO

Now that the history and the philosophy of the NFO have been outlined, the structure of the NFO can be explored. It is almost impossible to draw an organizational chart without showing the members as being both above and below the organization. The reason for this is that the members run the organization and, at the same time, are serviced by the organization.

The NFO has not had the time, the capital, or the need to develop into as complete an organization as the Army. The commodity departments (grain, meat, and dairy) are still in an embryonic stage of development. Generally, a specialist must be added to the department for each commodity; for example, in the grain department one each is needed for wheat, barley, corn, and so on. The Field Staff has almost reached the zenith of its development because members are necessary first to make finances and commodities available to the Commodity Department.
The following is a brief statement of the functions of the various elements of the NFO.

National Convention: Each year members elect delegates to represent them at the national convention. The primary duty of the convention is to set policy for the coming year and to elect a president and a board of directors.

President: Is responsible for the entire operation of the NFO, appoints the Field Staff Supervisor, key Commodity Department personnel, and Marketing Area Chiefs. All of these individuals are salaried employees.
Board of Directors: Is responsible for overseeing the President and must approve all of his major actions. The number of Board members varies with membership.

Commodity Department: Carries on collective bargaining and marketing activities for the NFO. Its responsibility is subdivided into three areas (grain, meat, and dairy) to deal with specific commodities. Each subdivision has a separate supervisor who works independently of the others. The present number of employees within the entire department is 75-100 people.

Marketing Area Chief: Acts as a communication link between the Commodity Department and the County Cell. At times he can also barter and market commodities within his own area. He has a small staff of 4 to 6 employees.

Zones: For all practical purposes, this organizational level is only designated and rarely used for any purpose.

County Cell: Is the basic unit of the NFO. It mirrors the National Headquarters in structure except that all officers are elected farmers from within the county serving without pay and there is no Field Staff Department. The primary purposes of the county cells are to inventory all commodities for sale under the NFO, to elect delegates to the National Convention, to inform the national organization of grass-roots feelings on important NFO matters, and to encourage non-members to join the organization.

Field Staff Supervisor: Is responsible for the recruitment of new NFO members, the collection of old dues, and the selection and training of Field Staff employees. He has a small staff of 5 to 8 employees to help him maintain contact with the marketing area supervisors.

Marketing Area Field Staff Supervisor: Is responsible for recruitment and dues collection in an area about the size of a political state. One to ten, or sometimes more, organizers work under a supervisor, alone or in teams, depending upon the amount of territory to be covered and the attitude of the farmers in the area.

NFO Organizer: Is the official "salesman" of the organization. He meets directly with the farmer to sell the organization, to provide incentives to old members, and at times, to collect bad debts such as late dues or handling costs.
PART TWO
CHAPTER IV

AN EXAMINATION OF THOMPSON'S FIRST PROPOSITION AND ITS IMPLICATIONS

Meaning

The open-system theory of organizational behavior defines an organization as a grouping of interdependent parts which work together toward the goal of producing the goods and/or services upon which the whole survives. This definition is supported by Chris Argyris' statement, "An organization is characterized by an arrangement of parts that form a unity or whole which feeds back to help maintain the parts." There are, however, certain of these organizational parts which are more significant than others. These parts comprise the organization's essence; they produce those goods and/or services which are necessary for goal-achievement. Without these parts, the organization could not exist. These essential parts of an organization can be referred to as the organization's core. The core defines the organization's function. The core element defines the organization's essence and goals; logically, it also provides the governing hierarchy that directs the organization toward its goals. An automobile company must produce cars, trucks, and spare parts; without

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these there would be no need for such other organizational parts as dealers, purchasing departments, or service departments. Therefore, the assembly line which manufactures cars, trucks, and spare parts is the core of an automobile company. Unless the core functions in the best possible way, the organization will not be maximally useful either to itself or to society. A simple example of the importance of this producing part is that during a strike of the assembly-line workers in which the supply of cars, trucks, and spare parts is cut off, the remaining parts of the automobile company soon become unable to function properly.

While the core of an organization is especially significant, the other necessary and sometimes vital parts of the organization (such as the above-mentioned dealers, purchasing departments, and service departments of an automobile company) have functions which must also be defined. These parts have duties which deal with the inputs and/or outputs of the core. They either purchase the inputs (purchasing department) or sell the outputs (dealers) or maintain the inputs and outputs (service departments). It can be suggested, therefore, that these parts support the functions of the core; therefore, they function as the supporting parts of the organization.

It is now possible to visualize an organization as having two divisions, as is shown in the following diagram (Figure 5). This diagram will clarify the separateness of these two organizational divisions. The differentiating characteristics of the core and support parts are that the core elements contain the organization's essence, because they:
(a) produce the organization's goods and/or services;
(b) achieve the organization's goal(s);
(c) ensure organizational survival; and
(d) include the upper echelons of the organizational hierarchy, the governing part of the core, which possesses the power to make and legitimize the policy that defines the goals of the core elements.

The support elements maintain the organization's essence because they:

(a) provide the core's inputs;
(b) circulate the core's outputs; and
(c) service and balance the core's inputs and outputs.

As suggested above, an organization must direct its core toward some goal(s). Warren G. Bennis postulates that "Organizations are primarily complex goal-seeking units." Therefore, organizations structure
their cores toward goal-achievement, and as S. Avery Raube maintains, "The objective determines the structure needed." The supporting parts of the organization will also be structured to help the core parts achieve the organization's goal. The automobile company structures its core (assembly line) to achieve its objective of producing cars, trucks, and spare parts. The supporting parts of the company also structure themselves so as to facilitate the passage and maintenance of inputs and outputs.

In order to produce goods or services, an organization's core must also contain a working knowledge and strategy with respect to these important functions. In other words, the organization's core must use some form of an art or craft, which is technology. This knowledge and strategy make up an organization's core technology. Core technology refers to the basic knowledge and strategy used by an organization's core to produce the principal goods or services upon which the whole organization survives. A manufacturing company's core, for example, must use knowledge relevant to the processing of raw material into finished goods.

If there exists a core technology for the core elements of the organization, there also must exist a support technology to be used by its support elements to produce the support necessary for the core to function. The manufacturing company, for example, must use support technology to get the necessary raw materials to the core from the environment and to transport and sell the finished goods to the consumer. Also, there may be a need for additional support technologies within this same company;

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for example, it may become advantageous for the company to open a cafeteria to improve employee relations. This cafeteria would not be directly related to the support technology maintaining the organizational core, however. It is, therefore, possible for the company to eliminate this cafeteria without appreciably harming the functions of its support elements or those of the company's core. Thus, some support technologies will be more necessary and vital to the functioning of the organization than will others.

An important factor which complicates the organization's attempts to use its elements and technologies to achieve its goal is its environment. For every organization there exists an environment specific to that particular organization. An organization's competitors, market, supply of raw materials, etc., all comprise its environment. Another example is that of the G-1 Office, which is located within a very unique environment—that of the Army itself. As was shown in Figure 5, the environment is external to the organization; therefore, the organization has limited control over it. While the organization's external environment may have elements within it which range from hostile to friendly, the fact remains that without inputs from the environment the organization could not exist, and without a place in the environment for its outputs there would be no need for the organization to exist. As Daniel Katz and Robert L. Kahn visualize it, "Open-system theory with its entropy assumption emphasizes the close relationship between a structure and its supporting environment, in that without continued inputs the structure would soon run down. On the other hand another major relationship
encompassed by a system is the processing of production inputs to yield some outcome to be utilized by some outside group or system. The entropy assumption is that there must exist a quantity of energy that supports a system. For the above reasons, the environment is a tremendously powerful force in the life of an organization whether it is friendly, hostile, or indifferent.

Thus, the organization is confronted with an environment which it can only partially control. If the organization is to survive, it must interact with certain elements within its environment to ensure a supply of inputs and a place for its outputs. Therefore, an organization and elements of its environment are always interacting, they are interdependent, and have varying degrees of influence over one another. Influence is the power either of an organization or of the elements of its environment to produce an effect upon the other. It is quite possible for the environment to refuse either to supply inputs, or to accept the outputs of an organization. Thus, the environment is affecting the life of the organization in a negative manner, due to the presence of negative entropy. Thus, because the organization wishes to survive, it will do everything possible to reduce the degree of negative influence that the environment has over it. The organization is caught in a dilemma; it must interact with the environment for its inputs and outputs, but it must keep the environment's negative influence at a minimum.

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If an organization wishes to survive, it must possess some means of defense against the negative aspects of the environment. Before an organization can defend itself competently, it must first control itself. A method by which it can both defend and control itself is sealing off its core technology. Sealing off prevents the loss of the knowledge and strategy of production (core technology) due to invasions by elements of the environment. Sealing off also ensures that an organization has maximum control over itself. While the organization interacts with the environment, it restricts its parts and individuals from certain actions which it believes are harmful to itself; therefore, the organization is internally protecting itself as well as increasing its control.

An organization cannot absolutely seal off its core technology; there is no certain way to prevent knowledge and/or strategy from leaking out of the organization nor to prevent meddling with the organization by outside sources. Sealing off the core technology of an organization is a continuous process of control and defense by which the company tries to limit or minimize damaging influences on its core technology from outside of the organization.

It is in the light of the above discussion that Thompson's first proposition can be advanced and explored. "Under norms of rationality, organizations seek to seal off their core technologies from environmental influences."\(^\text{11}\)

\(^{11}\) Thompson, Organizations in Action, p. 19.
Application to the Field Staff of the NFO

In order to apply the first proposition to the Field Staff of the NFO, it is necessary to define the formal relationship of the Field Staff to the core technology of the NFO. As was noted in the definition of an organization, it must produce goods or services in order to survive. The NFO's goal is to produce higher commodity prices for member farmers through the process of collective bargaining. Collective bargaining follows these steps:

(1) The farmer takes an inventory of the commodities he wishes to sell through the NFO;

(2) He sends his inventory to the appropriate county meat, dairy, or grain chairman;

(3) The different county chairmen total the commodities to be sold within their county;

(4) The totals are sent to the Marketing Area Chief;

(5) The Marketing Area Chief forwards them to the National Commodity Department of the NFO;

(6) The National Commodity Department begins to barter with separate meat, dairy, and grain processors for the sale of these commodities;

(7) An agreement is reached between the Commodity Department and the processor;

(8) A contract is sent by the Commodity Department and the processor through the Marketing Area Chief to the separate counties; and

(9) Each farmer member in a county decides whether or not he wishes to ratify the contract.

If he does ratify the contract, arrangements are made to move his commodities. If he refuses to ratify the contract he may then sell as he pleases on the open market. The different county chairmen, the Marketing Area Chief, and the National Commodity Department work out the details
concerning the transportation of the commodities, the location of scales, etc. This process can be shortened by the Marketing Area Chief, who may know of local processors and can negotiate with them. If an agreement is reached by the Marketing Area Chief, he must notify the National Commodity Department. Because the complete process of collective bargaining is carried on, or supervised by, the Commodity Department, its knowledge and strategy are the core technology of the NFO. It must be understood that the policies formulated by the president and board of directors are also included within this core technology.

The Commodity Department cannot, however, produce higher commodity prices unless they have members who have agreed to give their support and to pool their commodities through the NFO. Without commodities there would be nothing for the Commodity Department to offer in exchange. Support in this instance is of a financial nature; the farmer contracts to provide either $75 a year for three years or one percent (1%) of the gross proceeds from any commodity which he sells through the NFO in exchange for the service (collective bargaining) of the Commodity Department.

It is the function of the Field Staff to recruit farmers who will furnish both support and commodities for the Commodity Department. Thus, the Field Staff which penetrates the agricultural community (environment) in order to recruit members performs an environmental function for the Commodity Department.

In addition, the Field Staff maintains the core elements (Commodity Departments) of the NFO by visiting farmers who have not paid their dues or who have not moved commodities through the Commodity Department to indicate their dissatisfaction with the NFO's performance. It is the
function of the Field Staff to persuade these people to recommit themselves to the organization. This process is often almost impossible; non-complying processors often increase their market prices to attract NFO members away from the NFO's contracted price, and occasionally, the market price naturally goes above that negotiated by the NFO. The farmer, in these instances, can see no value in buying the Commodity Department's services.

In order to function, the Field Staff must also have a technology which allows it to recruit members and collect dues for the core. This technology will be called a support technology, because it supports the core.

It must also be pointed out that while a Field Staff employee is recruiting farmers or collecting old dues, he is also providing certain services to the farm community which are not directly related to Field Staff functions. He carries news concerning crop reports, births, deaths, and weddings to all parts of his territory. He may become a community leader. The Field Staff employee's biggest contribution in this area, however, is the least visible, because he provides human contact and conversation to a generally lonesome rural population.

The Field Staff formally functions as a supplier of inputs (members) to the Commodity Department, and it also acts to maintain the supply. One becomes increasingly aware of the importance of these functions as the condition of the organization is explored informally, because the Commodity Department has not yet even developed into a self-supporting part of the organization. A large majority of American farmers refuse to trust the marketing ability of the Commodity Department. As a result, the one
percent (1%) mark-off charged farmers by the Commodity Department for its service has not generated enough revenue to cover its cost of operation.

This situation is primarily the result of three factors:

(1) Not enough farmers joined the NFO at its inception to offer a great amount of support or commodities to the Commodity Department;

(2) It takes a great deal of time, once support and commodities are available, to build up an organization capable of dealing with all commodities on a nationwide scale (one or more market experts usually must be added to the Commodity Department for each commodity such as peas, wheat, hay, feed cattle, etc.); and

(3) Food processors can ignore the agreements offered by the Commodity Department because it has few commodities to offer, and has had very little farmer support.

The Commodity Department could not threaten to cut off the flow of commodities to an uncooperative processor. Thus, a unique situation exists within the NFO; its core elements are not fully functioning and are not providing enough services for the organization to survive. The Field Staff has overcome this difficulty by providing enough funds through membership drives and the collection of old dues to enable the organization to survive.

It could, therefore, be logically argued that the NFO's core is not achieving its goal of better farm prices. The NFO has had to shift its goal priorities from increased farm commodity prices through collective bargaining to dues collection in order to survive. As such, the knowledge and strategy used by the Field Staff has become more important to the organization than collective bargaining. Needless to say, this situation will not long be tolerated by a member. A farmer joins the
NFO for the services of the Commodity Department (higher commodity prices through collective bargaining) not for endless membership and dues collection drives by the Field Staff. Thus, the long-term survival of the NFO depends upon the Commodity Department's using its core technology to gain better farm prices.

The NFO's actual goal at present is the establishment of the Commodity Department as its functioning core element. Until that goal is reached, the NFO will not be a very effective organization. It can, however, keep the environment from destroying it by generating support through the Field Staff. As such, its support technology has become more important at the present time than its core technology.

In order to apply the rest of Thompson's first proposition, it is necessary to examine how the Field Staff seeks to seal off the NFO's goal-oriented core technology (contained in the Commodity Department) and its support technology from environmental elements. There are basically three different methods used to protect these technologies. The first method is simply the recruitment by the Field Staff of as many farmers as possible into the NFO. The advantage of this method is that an increase of support and commodities from a larger membership allows the Commodity Department to develop into a functioning core element; members give it both the power needed to deal with uncooperative processors and the revenues gained from commodity transactions needed to support NFO growth. If the Commodity Department becomes increasingly successful in negotiating for higher farm prices, the Field Staff will be able to portray this success for non-member farmers. Because nothing sells better than success,
recruitment will then become easier for the Field Staff. In both the core element and its supportive body, increased membership means increased organizational power to deal with its environment. Power, in turn, can be used by the NFO to defend against loss or escape of its core technology to harmful elements, or its being undermined by them. A processor will have to agree to collective bargaining with the Commodity Department when he knows his supply of commodities will be almost totally cut off. He will no longer be able to hinder the functioning of the core technology of the NFO. The processor was meddling with the NFO's core technology by not letting it operate upon his inputs (commodities); he also meddled in the Field Staff's support technology by not giving any positive assurance to farmers in his area that joining the NFO could result in higher prices. Thus, he was indirectly blocking Field Staff membership drives. Once a contract is successfully negotiated with the processor by the Commodity Department, his roadblock to increasing membership for the NFO is destroyed. This first method of sealing off organizational technologies is the most important; unless the NFO can acquire enough inputs to become powerful, it will not be able to successfully function within its environment.

The two remaining methods of sealing off organizational technologies are related because they both deal with the Field Staff's efforts to defend its own knowledge and strategy from environmental elements. In order to understand these methods, however, it is necessary to examine the educational process by which an employee becomes a functioning Field Staff member.
There are two means of acquiring the knowledge and strategy of the NFO's support technology. First, there is the use of a classified pamphlet outlining the procedures to use in recruiting farmers and collecting old dues; second, there is a week-long class held by Field Staff Instructors for all new employees, covering basically the same material as is contained in the pamphlet, with class practice to improve the field performance of the employee. Both the pamphlet and the class cover the trade secrets of the support technology by outlining correct methods to make the farmer more receptive to the Field Staff employee's ideas. Some selling techniques covered by both modes of instruction are: the correct opening address by the employee to put the farmer at ease and capture his attention, the proper words to use to impress and captivate the farmer, the degree of dress needed to ensure the employee's respectability (both suits and levis are unsuitable), and the proper closing statement by the employee ("You want to join the NFO, don't you?"). In both the class and the pamphlet instructions, the employee is required to memorize a routine that incorporates all of these tactics. The class method goes beyond the pamphlet by requiring class practice of the routine, and it includes more complete instruction on the farmers' problems and the NFO's ideas for rectifying them. Also, because a new employee has a chance to see the national headquarters in action, he will have a more detailed idea of the functioning parts of the NFO. Because of the advantages of the class method, all new employees are now required to attend it. While a week may seem a short amount of time, it is fairly exhaustive and can turn a city-born employee into a knowledgeable member of the rural-oriented Field Staff.
Now it is possible to examine the relationship between this educational process and the remaining two secondary methods of sealing off organizational technologies practiced by the Field Staff. A second sealing off method is the previously mentioned classification of the Field Staff's instructional pamphlet. Classification keeps the knowledge and strategy of the supporting technology restricted to the individuals who must have knowledge of it in order to function within the organization. The reasons for the Field Staff's efforts to classify or restrict its knowledge and strategy are to prevent the loss or escape of its core technology to other farm organizations, and to keep farmers from knowing the methods used to recruit them. Naturally, the Field Staff does not want successful methods lost to competition; a great deal of time and money has been invested into their development, and the Field Staff feels that its technology is superior to that of others. Therefore, it impels its employees, under threat of job loss, to hold this information, unique to the organization, secret. Farmers are a very suspicious lot; if they knew the many subtle methods used by the Field Staff to recruit them, they would probably resent the Field Staff recruiters and resist the NFO.

A third method used by the Field Staff to seal off its technology involves using its members' expertise. A member's expertise is the result of the training class and his experience in recruiting farmers. Working in the field with the farmer allows the Field Staff member to discuss the entire spectrum of farm problems. Thus, his knowledge grows until he can discuss farm problems on an equal footing with anyone. Expertise of the Field Staff member permits him to increase the efficiency and effectiveness
of the support technology by using his acquired knowledge to develop new or better methods of recruitment and collection. Thus, he is also efficiently contributing to the first method of sealing off, that of increasing NFO membership.

Also a knowledgeable member can better seal off the support technology because he can identify harmful elements within the environment, and can devise defenses against them. Another organization or a powerful individual may wish to prevent the Field Staff from recruiting members in an area because the NFO will bring in unwanted competition. These organizations or individuals are very subtle, and an inexperienced or ignorant Field Staff member may not know of their opposition. An experienced and knowledgeable Field Staff member, however, will recognize the extent of the organizational or individual opposition, and he can develop a scheme of action to expose the true reasons for the opposition of these groups. This process of defense may become a battle between the Field Staff member and his opposition, but, usually, the Field Staff will be able to continue recruitment of farmers or collection of dues in an area. Thus, the expertise of the Field Staff member enables the knowledge and methods of the support technology to function despite opposition.

It must also be pointed out that harmful environmental elements may not wish to oppose or to attack an organization when it is known that experts hold important positions within the defending organization. Who wants to oppose an organization that has superior knowledge, especially when it can only be attacked on its own ground? Therefore, expertise
within an organization's membership can become an important defense in itself, because it reduces attacks and opposition from harmful environmental elements.

The Field Staff does not need to defend itself or the NFO as forcefully from environmental elements which may have beneficial or neutral influences. While on the road, a Field Staff member often trades information with other traveling salesmen who also work extensively with rural populations. During such encounters, knowledge and strategy which are necessary to the Field Staff’s support technology are often exchanged with outside elements for portions of their technology. The process is mutually beneficial. Items that are often exchanged include: correct modes of dress, political remarks to avoid, road conditions, financial conditions of a certain area, and social and ethnic differences. All of these items are important if the Field Staff member is to expand the technology he utilizes in the field. As a result of such informal meetings, a Field Staff member can better utilize his support technology to expedite the recruitment or collection processes. All parties to such informal meetings can be somewhat assured that information traded will be kept within the informal salesman group, because all parties fear leakage of their methods and knowledge to farmers. Farmers' awareness of such information could easily result in their alienation.

Also, local political or community leaders who support the NFO are often invited by a Field Staff member to participate in the recruitment of members. These individuals are given a certain part of the sales routine usually covered by the Field Staff member. They are especially valuable in reducing the farmer's uneasiness toward the Field Staff employee who is often a stranger. In any case, after several days of working with the
staff employee, the leader will be better acquainted with the current support technology. In both cases, however, a Field Staff member shares only enough of his technology to ensure that he will get the information or cooperation that he wants from others. Outside individuals are not given access to many of the details which the Field Staff member feels should be known only within the organization. The reason for this action is that the Field Staff employee cannot really trust outside individuals' loyalty.

Application to the G-1 Office of an Army Division

Applying Thompson's first proposition to a division's G-1 Office necessitates the definition of the functions of an Army and its divisions in order to specify the core technology of these organizations. The main functions of an Army are to provide defense for the people, property, or interests of a national state or its allies against hostile elements of another national state(s) and to provide aid to civilian populations in areas damaged by a natural disaster. Therefore, an Army produces defense or help for elements of its environment. In return for these services by the Army, the national state furnishes support in the form of manpower and funds upon which the Army is dependent for its survival as an organization.

The entire Army, however, is a very large and bulky organization which necessitates its separation into various functional elements. As previously stated, the division is the main functional element within the Army which can produce defense or aid. A division usually can defend people, territory, or interests with the use of its combat units.
(Armor, Infantry, and Artillery) or can supply aid to civilians in a natural disaster by relying upon its large inventory of manpower and equipment. There are various small units, such as Task Forces and Brigades, which can also undertake the functions of the Army, but they lack the division's strength in manpower and equipment and are not commonplace. Higher level units such as Corps, Armies, and Army Groups function primarily to command, coordinate, maintain, and supply the divisions under them. These units rarely engage in the actual provision of defense or aid to elements of their environment.

Therefore, elements within the division must employ the core technology of the Army, because their knowledge and strategy will produce the products of the Army—defense or aid. Figure 2 will be helpful in visualizing the various elements as they are differentiated. The three Brigades and the Division Artillery with their immediate hierarchy (the Division Commander and his immediate aides) are the core elements of the division. Support Command and Division Troops are direct support elements, but can function as core elements in extreme emergencies. If any one of these specialized elements is not functioning properly, the entire division in turn cannot function as desired. The Signal Unit provides communication throughout the core elements; without its support the command would lose control over all of the elements, thereby jeopardizing the entire division. If the supply and transportation element does not provide the combat elements with such necessary materials as food, gas, or clothing, the combat elements would not be able to defend or give aid. Thus, the division's core elements and the direct support elements are highly inter-dependent with one another, as will be explained later in more detail.
The G-1 Office is instrumental in the formation and interpretation of personnel policies and procedures by which the Command Section regulates personnel matters within the division. Now that the position of the G-1 Office has been reviewed, its functions can be explored. One of the G-1 Office's main formal support functions is to provide personnel-related services and advice to the core and direct support elements of the division, especially the Division Command Section. It is part of the General Staff, which as the name implies is the Commanding General's staff. The G-1 maintains a roster of all officers and warrant officers within the division and can move individuals from one Brigade to another to maintain equality in numbers as well as in rank, in accordance with the policy set by the Command Section. The G-1 Office also advises and services all other core elements of the division on personnel policy and actions. The commander of a Brigade may have an officer who must be transferred out of the Brigade to avoid conflict within that unit. The G-1 Office, with the approval of Division Command, will effect this transfer. Also, a Brigade or Battalion Commander may contact the G-1 Office to have policies or procedures clarified.

A second function of the G-1 Office is to command and coordinate its special staffs (see Figure 3). The specialized offices of the Adjutant General, Finance Officer, Provost Marshall, Division Chaplain, Division Surgeon, and Headquarters Commandant were created to deal with the many facets of personnel. All of these specialists are controlled by the G-1 Office, and they report in their respective fields through the G-1 Office to the Division Command Section. They also help the G-1 Office with advising and servicing the Command Section and the other core elements,
and they aid in forming and interpreting policy and procedures within their respective fields. For example, the Command Section in response to the report of increased traffic accidents from the Provost Marshall via the G-1 Office, may order the initiation of a drivers' education class, the particulars of which will be arranged by the Provost Marshall's Office subject to the approval of the Command Section. The G-1 Office is the communication link in this whole process and serves similarly with its other special staffs. It may become necessary for the G-1 Special Staff to report on pressing problems directly to the Division Commander. The G-1 Officer will still accompany the special staff officer to meet with the commander, and in some cases add his comments as to the nature of the problem.

A third and most important function of the G-1 Office is the acquisition of replacements (inputs) to fill vacancies within the division. Without manpower, the division would not be able to produce defense or aid for the state. The G-1 Office and the Adjutant General's Office share the responsibility of acquiring replacements by notifying, through periodic reports, Army personnel agencies of the personnel needs of the division. The G-1 Office reports officer and warrant officer needs, and the Adjutant General reports enlisted man needs. In addition, the G-1 Office helps to maintain the replacements (inputs) once they arrive within the division by providing services through its special staffs for the improvement of a replacement's general welfare. There are various specialized areas in which a replacement may need help that are coordinated by the G-1 Office. For spiritual needs, the replacement can turn to the Division Chaplain; for medical aid, the Division Surgeon; for police, the Provost
Marshall; for financial aid, the Finance Office; and matters of personnel, the G-1 Office or the Adjutant General's Office. The special office of Headquarters Commandant does not provide any service to a replacement, but it does support the Division Command Section and its headquarter staffs by ensuring that desks, chairs, and lights are provided and are in clean, working order.

The core and direct support elements of the division are supported by the G-1 Office and its special staffs; these staff offices do not directly produce defense or aid; thus, they do not use the knowledge and strategy of the core technology. Instead, the G-1 Office must possess a correct understanding of the core technology used by the core elements if it is to service and advise them. Individuals within the G-1 Office must understand military terminology, symbols, and maps or they will neither be able to follow the movements or maneuvers of the core elements nor to communicate with them. For this reason, officers trained in the function of the combat units are the ones assigned to the G-1 Office.

While all of the G-1 functions are necessary to the core elements of the division, just how vital they are is open to question. If the functions of the G-1 Office were for some reason discontinued, the core elements would surely find some way to carry on. However, the division would have to decentralize its personnel operations. Decentralization would necessitate duplication of effort in each core element, and thus, would raise the cost of administration throughout the division. Also, the Division Command Section would lose some control over the personnel functions of the core elements, because decentralization would allow
lower unit commanders (at Brigade or Battalion levels) to implement personnel policy and procedures.

Additional evidence that an Army can operate without the detailed advice and services provided by the G-1 Office and its special staffs is found in foreign armies. They often operate with a very small personnel office and entrust the bulk of these functions to either higher or lower units; in very new or primitive armies, there may be no personnel department whatsoever.

The G-1 Office and its special staffs may not be vital to the core elements, but they do act as an important instrument by which the core technology possessed by the core elements is sealed off from environmental influences. In order to perceive how the G-1 organization accomplishes this process, it is necessary to visualize it as a peripheral organization acting between the core elements and the environment. If a higher authority, such as a Corps Commander, questions the Division Commander's actions in a matter related to personnel, the G-1 Office helps defend the Division Commander. The Corps Commander may feel that too many Armor Officers are being assigned to a certain division, or he may suspect that a division is deliberately reporting shortages of a certain critical specialty. The G-1 Office could defend the Commander in the first instance by providing a roster, by grade and position, of all the Armor Officers within the division. From such exact information, a defense can be formulated by the G-1 Office and passed on to the Division Commander giving such reasons as that most of the Armor Officers with the division are directly engaged in the functioning of core elements (Armor Units) and their loss out of the division would have an adverse effect.
upon its ability to perform, or that a large number of Armor Officers were found to be second lieutenants and as such are not as vital to the functioning of a core element as is an experienced officer of a higher rank. In the first case, the Division Commander can argue with the Corps Commander that a loss of Armor Officers will result in dysfunction within his core elements; or in the second case, he can allow a certain number of armor lieutenants to be taken from the Division with the knowledge that their loss will not cause dysfunction. Thus, a Division Commander with the knowledge given him by the G-1 Office can better control his internal affairs as well as defend his core elements from encroachment, thereby sealing off his core technology.

A second means of sealing off the core technology offered to the core elements by the G-1 Office and its special staffs is its large number of specialists and experts. These individuals represent such diverse professions as physician (Division Surgeon), policeman (Provost Marshall), personnel expert (Adjutant General), clergyman (Division Chaplain), and payroll expert (Finance Officer). If an environmental force tries to influence the core elements of the division in any of these fields, the environmental force in most cases will be required to have an expert of its own in each field. A hostile individual who wishes to poison the food or water of a core element would have to find some way of getting around the inspection procedures established by the Division Surgeon. Thus, the professional Division Surgeon and each expert can individually help to seal off the core technology of the division.
While the G-1 Office exerts efforts to seal off the core technology, it also exerts a fair amount of effort to seal off its own support technology and has, thereby, increased its power beyond that authorized formally. There are three attributes of the structure of a division which have allowed this extension of power. The discussion of these attributes will show that Thompson's first proposition may be applied to explain the strategy of support technology as well as core technology.

Originally, the G-1 Office and its special staffs had very few functions to perform for the core elements and were small and powerless entities. The core elements carried on many of the various personnel-related functions of the staff offices. As the core elements' environment became increasingly complex, a need developed for specialized personnel services. Staff offices were created to provide these specialized services for the core elements. As a result, the core elements became increasingly dependent upon the staff offices for personnel-related advice and service. The important staff service of providing and maintaining inputs (manpower) to the core elements has especially developed core dependence upon the staffs. Without a stable supply of manpower the core elements could not function to provide defense or aid. Thus, the first attribute is the increased complexity of the division which has developed due to the enlarged mission, increased record keeping requirements, scientific advancements, and increased size of the core elements all of which work together to necessitate a specialized personnel service.

The dependence of the core allows the staff elements to exert a degree of influence over the core elements. The more influence the staff positions have upon the core elements, the more entrenched they become
within the division. Shutting down the G-1 Office and its special staffs would require the afore-mentioned decentralization. Because core elements do not wish to expend time and manpower upon such an undertaking, the staffs will probably continue in their present tasks; their survival is assured.

Another characteristic of a division that staff offices can use to their advantage is the small size of the divisional Command Section. It is impossible for the Division Commander or his few aides to oversee all of the personnel functions carried on by the G-1 Staffs within the division. Thus, the staff offices have some freedom of action outside the scrutiny of the Command Section. This somewhat autonomous situation allows the staffs to operate beyond the boundaries imposed upon them by the Command Section. It is possible, because they control replacements for the G-1 Office and the Adjutant General's Office, to take the best officer and enlisted replacements for their own use. Such a process may deny the core elements the raw material necessary to them if they are to function properly. The Command Section may never discover this corruption unless they physically interview the Office's personnel or look at its records. Because such acts are time-consuming, these offices can be fairly sure that their corrupt acts will not be discovered.

The G-1 Office can, in effect, seal off its technology from the rest of the organization. By putting its own interests above those of the core elements, it seeks self-perpetuation. The G-1 Office is often fully staffed or overstaffed when core elements are unable to function properly because of personnel shortages. This situation is allowed by the Command Section and the other core elements because without the proper functioning
of the G-1 Office the important input of manpower will not be forthcoming. The Commander of the G-1 Office can, however, use this situation to enlarge the amount of advice and service the office provides to the core elements. Thus, he is increasing both the importance of his office and the dependency that the core elements have upon the G-1 Office.

A final peculiarity is the staff's position within the division. The G-1 Office and its special staffs are close to and part of the center of power, authority, and control possessed by the Division Command Section. While a staff cannot give a command to a core element (only the command element has this important power) the staffs do act as a communication link between the core elements and the core command, as previously described. As such, a staff often speaks for the Commander to the core elements. It is, in fact, interpreting the Commander's orders for the core elements. A problem is encountered here, because the staff interpretation provided for the Commander to the core elements can easily be interpreted by them to be exactly as he wishes. Thus, policies and procedures initiated by a staff position without formal recognition from the Division Commander are often taken by the other core elements as direct orders from the Commander. In such cases, the staff is exceeding the formal power given to it and is exercising a powerful influence over the rest of the division. Thus, staff positions can sometimes be discovered acting despotically when they command other elements.

The G-1 Office often requires the core elements to follow its directions on personnel-related matters, without the approval of the Command Section. If the core elements do not question the legitimacy of these directions, the G-1 Office can actually speak as the Commander in
its field of personnel. Most core elements recognize the informal position of power and authority of the General's Staff including the G-1 Office. Officers of a core element are often extremely nervous when a G-1 Officer visits their unit, because a General Staff Officer can easily forward a damaging report about the core element directly to the Commander. Thus, a staff officer represents the eyes and ears of the Division Commander.

To summarize, then, due to these three factors—the increased complexity of the environment, the smallness of the Command Section, and the proximity of the staff to the Command Section—the G-1 Office and its special staffs' functions within the division impel increasing dependence of the core elements upon the support elements. In fact, the support agencies can become almost as powerful and important as the core elements. This power enables them to seal off their support technology from the environment and from their own organization. The powerful position and the specialization of the G-1 Office and its special staffs furnish them the necessary influence to subvert the goals of the core. For example, the goal of the division could be shifted from that of producing defense and aid (which utilizes the core technology) to that of administration, thus replacing the core technology with the support technology. If this switch occurred, it is even possible to state that these staff offices operate as if they comprise the core rather than support elements.

The G-1 Office and its special staffs have knowledge and strategy which is unique to them. Even the Division Command Section has trouble understanding and penetrating these specialized areas. The Division
Commander has fairly limited knowledge in the specialized areas of the medical or spiritual needs of the division. Thus, he is hesitant to question any acts of these offices and thereby show his ignorance. In this way, this specialization affords a second means by which the G-1 and its special staffs seal off their environment, and also seal in their knowledge. The G-1 Office often has trouble managing its special staffs, because it has no specialists. Instead, its personnel are from the Combat Arm Branches. The G-1 Office overcomes this difficulty by training its own personnel to become specialists. For example, the G-1 Readiness and Manpower Officers are usually kept in their position(s) for a period of two years so that they may become proficient enough to act as watchdogs over the operation of the Adjutant General. Thus, specialists are created to watch over specialists.

Comparison

Both the Field Staff of the NFO and the G-1 Office of an Army Division perform the function of seeking to seal off their respective core technologies from outside influence. While the modus operandi for these organizational parts is very different, the end result is the same. Therefore, these two very different organizations appear to support Thompson's first proposition. For clarity it has been necessary to delineate the differences between an organization's core and support elements and their respective technologies. The core provides the organization's essence, while the support elements function as input and output components and seal off the core elements' technology from environmental influences. In this way, these supporting elements have also become
defense and control components. In their expanded roles, these support elements have achieved very important positions within their respective organizations. The functioning of the Field Staff is more important to the NFO's short-run survival than is its core. It is, therefore, critical for the Field Staff to seek to seal off its own support technology from the environment. A critical problem in the life of the NFO will be when to switch the organization's reliance from the short-term survival of the Field Staff to the long-term survival offered by the Commodity Department, its core. The G-1 Office can act as though it had a core function instead of a support function. It can act outside of the authority allowed to it by the core, and can actually seal off its technology from its own core organization. An important problem in the life of a division is how to prevent this support element from abusing its power. If the NFO cannot switch from support to core reliance for survival, and if the division cannot control the functions of its support element, then the danger exists that their cores will not be able to function properly, threatening both goal achievement and survival.

In the light of the discussion of the support elements, Thompson's first proposition may be restated to read, "Under norms of rationality, an organization's core and support components will seek to seal off all technologies (both the core and the support technologies which the organization perceives as necessary to its short- or long-term survival) from environmental influences." Occasionally, there is the possibility that the support elements will be too efficient in sealing off either their own or the core's technology. The Field Staff can oversell the NFO by recruiting more farmers than the Commodity Department can handle; the
G-1 Office can overstaff itself by using more personnel and power than is necessary for its proper functioning. In both cases, this causes the core to assume a secondary position within the organization.

While it is easy to enlarge upon Thompson's first proposition, it is hard to disagree with the philosophy contained within it. Basically, an organization must survive within its environment. The degree to which the organization feels the need to survive varies with its degree of establishment. The relatively new NFO is somewhat unsure of its survival, whereas the established Army division is almost guaranteed of its survival. Both organizations are struggling within the environment to maintain their self-control and to construct suitable defenses to seal off their core technologies from influence. Because the environment will always attempt to undo the organizations' efforts to seal off these technologies, the organizations can only seek a perfect state. This method is a very primitive form of control and defense. The organization can only seek to ensure its life; it cannot have an absolute guarantee upon its life. It must interact with the environment and accept the risks and chances involved in survival.
CHAPTER V

A CONCISE DISCUSSION OF FOUR ADDITIONAL PROPOSITIONS OF THOMPSON

Buffering

Since an organization cannot seal off its technical core completely while maintaining its interaction with the environment for a supply of inputs and a place for outputs, it must devise more complex methods of controlling and defending itself against the environment. The place to carry on such methods is the boundary between the environment and the organization. In other words, the supporting elements (the input and output components) become the focus for organizational control and defense against the environment. One of the biggest problems for the support elements is defending against a fluctuating environment which causes the organization to have a varying supply of inputs or outputs because of changes in the environmental supply and demand. If an organization is to survive, it must have some stability in its supply of inputs and demand for outputs. Otherwise, its core will be either overextended or underworked. In order to increase its chances of survival, the organization can try to control these environmental variations of its core's inputs and outputs by using its support elements as a buffer. A means of buffering used by the input or output components of a manufacturing company is the stockpiling of raw materials or manufactured goods. In this way, the core's inventory will
be steady in the face of fluctuations in environmental supply or demand. As Thompson suggests in his second proposition, "Under norms of rationality, organizations seek to buffer environmental influences by surrounding their technical cores with input and output components." As with sealing off, an organization can only seek to buffer itself, because there exists no sure way of guaranteeing that input and output components can regulate environmental supply and demand.

The input component of the NFO is the Field Staff, whose purpose is to provide farmer members for the core and to maintain them once they have joined the organization. There is no real output component within the NFO, because the core itself (Commodity Department) produces higher farm prices through collective bargaining. There is no way of stockpiling these higher prices. Commodity agreements with processors are good only for a short period of time and cannot be stored away for another day.

Because the Field Staff has few useful methods available to implement it, buffering is carried on only in a limited fashion. The Field Staff will send some employees into an area with the purpose of visiting members whose dues are to be paid in the next couple of months. The employees are, in effect, performing preventive maintenance on the organization's membership. He is trying to make sure that members, inputs, do not drop out of the organization. Thus, he is trying to ensure a steady flow of support and commodities from the member to the core; he is buffering the technical core. Also, this preventive maintenance by the Field Staff

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12 Thompson, *Organizations in Action*, p. 20.
enables it to forewarn the core of a drop in membership if it learns of dissatisfaction. It must be pointed out that unless the core performs its function of raising farm prices, the Field Staff probably will not be able to maintain the membership. Farmer members want results and not just a friendly visit from the Field Staff.

An additional method of buffering used by the NFO is the extensive training of its Field Staff employees in an effort to increase their efficiency and effectiveness. Also, Field Staff employees are utilized by their supervisors so as to allow them to develop their greatest potential. Both the training and the supervising of employees buffers the core by allowing them the maximum knowledge necessary to deal with the fluctuating environment. One employee may have the persuasive talent needed to talk dispirited members back into the NFO; another may be most productive when sent into areas in which new membership drives are needed or in which membership maintenance is necessary to maintain the core's inputs.

The success of buffering by the Field Staff depends on the effectiveness of the support technology which is used in training Field Staff employees and the ability of the Field Staff employee to utilize the support technology given him. Possible deficiencies of the support technology include its incomplete development in so young an organization and its inappropriateness for a given farmer or community. Even after extensive training and supervising an employee may not be able (or may refuse) to utilize the support technology provided him by the Field Staff or he may simply not work, and thus be beyond organizational control. An organizational effort to buffer the core which relies upon this type of individual
will fail. To fulfill the organization's wish to buffer its core, it must depend upon the efficiency of its support technology and upon the individual Field Staff employee's ability to use his acquired knowledge to deal with his environment and to take orders from his superiors. Buffering by the Field Staff to protect the core is dependent upon the refining of its support technology and the recruiting of employees who fulfill the twin abilities mentioned above. Even with 100% effective technology and employees (if this were possible), extreme environmental fluctuations such as have occurred in agriculture over the years (1940's boom, 1960's bust) would probably actually determine whether the buffering acts of the Field Staff are successful in protecting the core from environmental influences.

The G-1 Office is an input component of the division. It provides replacements to the core, and advises and services the core. The core's environment, especially that of the Command Section, is such that personnel-related inputs such as reports, awards, etc., come into it in such great quantity that they all cannot be dealt with immediately. The variety of these items is also a factor because they include medical reports from the Division Surgeon, religious and morale reports from the Chaplain, police reports from the Provost Marshal, and personnel-strength levels, congressional correspondence, etc., from the Adjutant General's Office. In addition, some of these reports are verbal reports issued by one of the G-1's special staffs to the Division Command Section to keep it updated on certain critical items, e.g., the fatal result of a traffic accident involving personnel from the division. Buffering is handled by the G-1 Office in these cases by using a system of priorities to handle the material in a systematic way and prevent the Division Command Section
from being overwhelmed with paper work. Thus, the G-1 Office functions as a buffering agent for its technical core.

The assignment of priorities to reports is in most cases an informal process which is carried on by a few select members of the office. The criteria used to establish this priority system are: the importance of the report, the rank of the person submitting the report, the date that the report is due to a higher authority for action, and the personal feelings of the person making the priority judgment toward the originating person(s) or unit(s). The G-1 Officers most responsible for judgments on priorities are the Major (Assistant G-1) and the G-1. Under this system some items, those judged not to be of great importance, are allowed either to die a slow death by inaction, or are acted upon when nothing else is pressing. Highly important items are expedited; normal priorities are acted upon as soon as possible.

The advantage of such a system is that it allows the G-1 Office to control the inputs into the core. Because this priority system reduces inefficiency and confusion within the core, it also keeps outside authorities, such as higher headquarters, from meddling in the core by showing them efficiency and purpose. Thus, it also defends the core. It also acts as a screen that shuts off items that are unimportant to the core Command Section and prevents its becoming inundated by small details. A danger of this system is that the G-1 Office may abuse its position by filtering out bad reports and submitting only good reports to the Command Section. Thus, it can make itself or its special staffs look good in the eyes of the Commander, when such a state of affairs is anything but the truth. Also, a G-1 Officer may stop a report that looks
insignificant only to learn with the passing of time that it was judged significant by the higher command. Another problem is encountered if the person submitting the report doesn't agree with G-1 priorities. Usually, such disagreements are handled in one of two ways. If the person submitting the report outranks the G-1, the problem is forwarded to the Chief-of-Staff for a solution. A person of the same or lesser rank than the G-1 would have to negotiate with the G-1. If he is under the G-1's control, he would have to accept the G-1's decision as a final answer. If he does not submit to the G-1's decision, he can be removed from his position, or he can take the drastic step of skipping the G-1 in the chain of command and request a decision from the Chief-of-Staff. Such actions are taboo to everyone in the Army and, therefore, usually result in additional problems for the individual.

The G-1 Office also buffers the core by inspecting core elements to make sure that they are following all personnel-related policies set by Corps and higher headquarters. It is thus ensuring preventive maintenance upon the core elements to prevent their being found deficient by the environment. The G-1 Office can also abuse its power by arbitrarily requiring certain items or procedures of the core elements during inspection without the approval of the Command Section. Thus, it is able to increase its own power at the expense of the core.

While the G-1 Office can buffer the core by using the above means, it has found it impossible to buffer the flow of replacements into the division. Decisions upon the flow of personnel into a certain division are set at Army levels and as such are completely out of the range of the G-1's control. Because the G-1, as an input component, cannot control
this important environmental input, the division's core can have problems, at times, providing defense or aid. This situation underlines the importance of input components' buffering the technical core from environmental influences.

In understanding Thompson's second proposition, one must realize that while buffering may prevent some environmental fluctuations from overcoming an organization, it may at the same time present problems as has been shown in the case of the G-1 Office. Buffering was unjustifiably used there to cut off a flow of negative information to higher authorities and to increase the power and position of the Office. The buffering technique of preventive maintenance used by the Field Staff, if misused or overused, could alienate farmers rather than encourage them to continue their membership in the NFO.

Another way that buffering may cause problems to the organization is in the use of methods of buffering which have become obsolete or inadequate due to the passing of time or changes in the organization. The inputs and outputs of an organization may change drastically, requiring a new means of buffering them. The stage of development and the objectives of an organizational component also seem to have a regulatory effect upon the use of buffering. The G-1 Office can already make extensive use of buffering to deal with its environment and increase its power while the Field Staff is still somewhat limited in this respect. The G-1 Office is well-developed and has the formal objective of helping the core along with the veiled objective of helping itself. On the other hand, the Field Staff is young and primarily interested in facilitating the functioning of the organization's core. Therefore, it has little interest in the use of buffering to extend its own power.
It can also be suggested that the state of the environment itself sometimes has an important influence on both the degree of use of buffering and the methods used by an organization. In a combat situation, the G-1 Office would certainly be faced with problems similar to those of the Field Staff. Efforts to buffer the core in this more fluid environment would force it to spend more time buffering to protect the core and less time to enhance its own position. The greatly increased volume of work that would be handled by the G-1 Office would allow it no time for self-interested buffering until it had perfected its technology to deal with the new environment. Another illustration of the effect a changing environment has on buffering is that of the Field Staff. In its early stages of development, Field Staff employees were hired and given no training and very little supervision. Thus, the organization's use of buffering through an educational process was extremely limited, and the employee was on his own within the environment. As the Field Staff's and the NFO's environment became increasingly complex, training and supervision were added to buffer the organization against the environment by increasing its internal control and external defense.

**Leveling**

The two previously mentioned methods of organizational defense and control (sealing off and buffering) have been primarily centered upon internal organizational actions to deal with the environment. Now it is time to explore another defense and control method in which the organization actually reaches into the environment to reduce the fluctuations which affect its input and output transactions. This method, called
leveling, results in a smoothing out of input and output transactions in which the organization induces the environment to react in a beneficial, predictable manner. It defends against environmental fluctuations by retarding their development, and it thereby controls the flow of inputs and outputs to and from the core. An example of leveling is a manufacturing company's offering a cash inducement to its customers to buy its products during a period of low seasonal demand. While there is no assurance that the environment will react in a manner which is beneficial to the organization, leveling is an effort by the organization to progress within the environmental context. As Thompson maintained in his third proposition, "Under norms of rationality, organizations seek to smooth out input and output transactions."\(^{13}\)

The NFO is currently mounting a nationwide recruiting campaign by the Field Staff, with the help of grass-roots membership, to induce non-member farmers to join the organization. Using member farmers to help the Field Staff usually results in more successful recruiting drives. The result of this campaign could be the establishment of the maximum number of members that the organization could expect to recruit at a certain point in time. In other words, the NFO's membership will be stabilized at the point when enough farm commodities are flowing through the NFO to ensure that the food processors will recognize its power and offer a fair price for commodities, without overwhelming the Commodity Department. Two more factors establishing this optimum number of members are the minimum necessary to provide financial support for the NFO, and

\(^{13}\) Thompson, *Organizations in Action*, p. 21.
an upper limit placed so that the Field Staff will have time to recruit new members to replace those lost through attrition as well as to main­
tain the current members. If the replacement of lost members by new ones is not adequate, the NFO may offer a special inducement to potential mem­
bers so that its optimum level can be maintained. This special induce­
ment would be a leveling effort on the part of the organization.

In areas which once had a large active membership, but have be­
come inactive, the NFO makes a different type of leveling effort. The Field Staff sends a large force of employees to entice ex-members back into the organization by means of an intense person-to-person communica­
tion of the NFO's successes and the values of rejoining. One inducement to rejoin the organization is often simply to get all of these Field Staff employees off his back. Once the ex-member is back in the fold, inputs will presumably resume flowing into the core. Such leveling methods are not very successful, because many ex-members become more resentful with each visit until they refuse even to consider rejoining the NFO.

The Field Staff, not the entire NFO, is the organizational ele­
ment in these leveling actions which actively seeks to smooth out input transactions. Therefore, it may be possible to enlarge upon Thompson's third proposition in that he maintains that organizations seek to smooth out input transactions, but this examination revealed that a support ele­
ment, the Field Staff, did the actual smoothing out of the NFO's input transactions. The NFO's hierarchy, a core element, ordered the Field Staff to try to smooth out the flow of inputs. Thus, the organization's core elements may order their support elements to smooth out the flow of inputs or outputs; the support elements do the actual work. On the
basis of this information, Thompson's third proposition would be restated, "Under norms of rationality, organizational input and output components, upon orders of the core, seek to smooth out input and output transactions."

The G-1 Office smooths out the inputs to the division command element by setting required dates for delivery of reports from lower units in order to make certain that sufficient time is allowed for evaluation by the G-1 Office before the reports are forwarded to higher headquarters. A major report would usually require at least two days of evaluation and correction before being forwarded to higher headquarters, III Corps. The exact date on which a report is to be delivered to the G-1 Office is set by the G-1 after conferring with the Chief-of-Staff. The advantage of this arrangement is that the office of the Chief-of-Staff, a core element, provides additional leverage to ensure that units comply with the due date. No unit commander wishes to be reprimanded by the Division Command Section for delinquent reports. Once again the proximity of the G-1 Office to the center of power can allow it to exercise the power of a line position; it can actually issue orders to core units.

The G-1 Office also tries to protect the core from the inconveniences they might encounter consequent to the smoothing out procedures initiated by a higher organization's input component, such as G-1 of III Corps. Foremost of these problems is meeting the dates that reports are required to be submitted to higher headquarters. The G-1 Office protects the core in these instances by requesting the Corps to allow more time, or by ignoring higher headquarters' request for a report until the last possible moment, or by engaging in informal arguments between subordinate officers of the higher III Corps and the lower division G-1 Offices.
While arguing in itself solves nothing, it does stall for time. The danger in this course of action is the possibility of the argument reaching the superiors of the two officers which allows a minor argument to become a major conflict in which the losing office would usually be the lower division G-1 Office. From this case, it can be observed that input components often come into conflict when they try to smooth out the various transactions between them.

One input to the Division's Core which the G-1 Office cannot smooth out is the inflow of replacements, which is its most important input into the division. This input is out of the range of the G-1's control and as such is a critical variable in the core's ability to operate.

The G-1 Office and the Field Staff both have the same functions because they act as input components attempting to smooth out input transactions. Thus, they provide empirical support for Thompson's third proposition. The UPO and the Army Division look upon the Field Staff and the G-1 Office, respectively, as instruments by which they attempt to influence the environment by their efforts to smooth out inputs. Because the G-1 Office has command-related control over that part of the environment within the division, it can be reasonably sure that it can smooth out these inputs into the core command section by setting due dates upon reports. Therefore, the more influence the component has over its environment the more likely it is to succeed in smoothing out transactions. However, the G-1 Office's and the Field Staff's attempts to smooth out input transactions over which they have little influence or control has no guarantee of success. The environment may not wish to cooperate with the organization's
components. Without some degree of cooperation from the environment, all attempts to smooth out input or output transactions will fail.

**Anticipation and Adaptation**

If an organization cannot seal off its core technology, buffer its core from the environment, or change or smooth out environmental fluctuations, it must then seek other methods of control and defense against the environment. One method, which is primarily defensive, is to try to look into the future and predict environmental fluctuations or changes. An organization's core may be performing a function that the environment no longer needs. The U.S. Government may pass a bill authorizing the creation of a government agency which will perform the functions of the NFO. If the NFO has not anticipated such a government move, it will be caught by surprise and will probably be destroyed. Needless to say, anticipating changes within the environment which may range from completely irrational to mostly rational is a very difficult task. However, if an organization can anticipate environmental change, it can initiate search for a way of adapting in order to survive. The NFO might have foreseen the above change in government policy and changed objectives from collective bargaining to politics, which would mean an attempt to influence the functioning of the new government bargaining agency through political acts such as lobbying. While anticipation is a prime defensive mechanism of an organization, adaptation also permits an organization to defend itself by changing its objectives and/or techniques. It is in the light of the above discussion that Thompson's fourth proposition can be examined. "Under norms
of rationality, organizations seek to anticipate and adapt to environmental changes which cannot be buffered or leveled.\textsuperscript{14}

Because the Field Staff penetrates the environment for the core (Commodity Department) of the NFO, it is relied upon as a source of information that can be used to anticipate future environmental changes. It may be discovered by the Field Staff, for instance, that large blocks of members are disgruntled because they have not seen any action on the part of the Commodity Department to raise the price of their commodities. The Field Staff can pass the names and location of these members on to the Commodity Department with the hope that they will be contacted by the core and told of contract agreements within their areas. If no action is taken by the Commodity Department, the Field Staff can predict that these members will drop out of the organization. Both the Field Staff and the Commodity Department have the information necessary to adapt to the loss of these members' financial support and commodities. The problems of this information-sharing procedure is that often there is a breakdown of communication between the support and core elements of the NFO. Either the Commodity Department doesn't get the correct information from the Field Staff as to the number of dissatisfied farmers, or the message is not communicated with the sense of urgency necessary to promote action. This problem is largely the result of human inattentiveness.

While the Field Staff does pass on information concerning membership to the core, which is its primary responsibility, it does not provide very much information regarding commodity market trends. No detailed market analysis is provided by the Field Staff or any other support

\textsuperscript{14}Thompson, Organizations in Action, p. 21.
element. The Commodity Department will probably find it advantageous to establish support elements whose specific function will be to provide it with detailed market analyses. There are already individuals within the Commodity Department who are increasingly taking over this role.

The Field Staff also compiles information that is necessary to its support role within the NFO. Detailed maps are kept which allow the success or failure of membership drives. Computerized membership rosters are maintained to facilitate dues collection. Daily communication between Field Staff employees and their supervisors is official policy. With such information, the supervisor can anticipate future trouble spots and can suggest methods to deal with them. A supervisor may learn from one of his field employees that an area already organized under the NFO contains large numbers of non-member farmers who are willing to enter the NFO. He can, then, switch other employees into this area and quickly provide more inputs to the core.

A point that must be stressed from the Field Staff's example is that without an adequate flow of information into the organization there cannot be anticipation of environmental change. Needless to say, without anticipation there cannot be adaptation. Because anticipation is so important, specialized support elements are often given the function of information analysis in order to anticipate future trends.

While the G-1 Office cannot buffer or smooth out the inflow of replacements, it can try to anticipate future manpower levels. Thus, it is trying to forecast future environmental changes. Forecasting of future personnel input flow is accomplished by the G-1 Office and the Adjutant General requesting from higher headquarters a detailed summary of officer,
warrant officer, and enlisted replacements that the division can expect over a given period of time. Also, individual orders from Army level which assign replacements to the division are carefully screened by these two offices to determine rank, skills, and date of arrival. With such information, the G-1 Office and Adjutant General Office forecasts are nearly correct; the division's core will know and can adapt to shortages or excesses of personnel. The core can also judge from this information its ability to produce defense or aid. If core units are understrength, they will not be able to function properly in their assigned roles.

Because anticipation of future manpower levels is so important to the core, the G-1 Office and Adjutant General spend a great deal of time and manpower in order to forecast future manpower levels accurately. The environment, however, is often in such a state of fluctuation because of political or social changes that all efforts to anticipate and adapt to manpower changes are frustrated. The division may be brought up to full strength more rapidly than usual to meet a world crisis, thus straining the abilities of the G-1 and Adjutant General's offices to anticipate and adapt to the new situation in a logical and systematic way. The division's core will also have difficulty reacting to the new inputs, which may temporarily decrease its efficiency.

A fundamental distinction between the Field Staff and the G-1 Office is that the Field Staff is primarily interested in anticipating and adapting itself to change and has a secondary interest in providing the NFO's core with information necessary to this anticipation and adaptation. The G-1 Office, on the other hand, has the primary function of providing information upon future environmental changes to the core.
There are few, if any, reasons for it to anticipate and adapt itself to environmental change because its own environment is stable enough for it to learn what adaptive changes are necessary. The G-1 Office knows what to do with new conditions; it doesn't have to anticipate them. If, however, the division is moved into a combat situation, the chances are that the environment will change enough so that the G-1 Office must anticipate and adapt for its own survival. Therefore, the condition of the environment is an important determinant of the degree to which an organization or its parts try to anticipate and adapt to environmental change. It is also important to note that organizations use their support or peripheral elements as information gatherers to gather the knowledge necessary to anticipate environmental changes and adapt the core and support elements to them. To summarize this discussion: Thompson's fourth proposition is valid, but the important questions of exactly how an organization anticipates and adapts to environmental changes and to what extent this anticipation and adaptation are necessary must be answered separately for each organization.

Rationing

It is not always possible to use the preceding methods to control the organization so as to protect it from the fluctuations, changes, and power of the environment. The Field Staff may not be able to collect dues or recruit new members because of adverse conditions such as poor crops, discouraging economic circumstances (inflation or recession), rural poverty, detrimental press, or unsettling political remarks. In all of these cases, the inputs upon which the NFO is dependent can be seriously
disrupted. As has been stated before, the flow of military replacements into the division may not be adequate because of Army commitments to other zones of operation or because of political factors. No amount of pressure upon higher authorities can or will increase the flow of personnel available to the G-1 Office. Therefore, the division's core is faced with the prospect of becoming understrength and unable to function. In both instances, the support components of these organizations, the Field Staff and the G-1 Office, are unable to change conditions that are threatening them as well as their cores.

The administrator and commander of these two organizations cannot ignore these disruptions of their organizations' functions. Therefore, the President of the NFO and the Commander of the Division will have to initiate some method or action to insure the survival of the entire organization. This method of dealing with such situations is best described by Thompson's fifth proposition. "When buffering, leveling, and forecasting do not protect their technical cores from environmental fluctuations, organizations under norms of rationality resort to rationing." Rationing is an action used by an organization in which it apportions a smaller than usual amount of supplies under a priority system to maintain the survival of its core.

The method of rationing practiced by the G-1 Office is to assign what replacements the division does receive from the Army to priority units, e.g., the maintenance battalion, in order to keep the core's equipment functioning. The divisional commander tells the G-1 Office which

15Thompson, Organizations in Action, p. 23.
units have priority within the division. Units which do not receive
priority designations are usually administrative support elements, be-
because the commander feels the core can somehow function without them.

Financial difficulty in the NFO that is brought on by inadequate
member support is handled by simply not issuing paychecks to employees
until the organization becomes financially solvent. The decision to under­
take such a drastic measure is made by the higher authorities of the NFO,
usually the President. Because both the core and support elements are
equally important to the NFO's survival presently, the entire organiza­
tion undergoes financial rationing. Despite this organization-wide ra­
tioning, there are probably certain key individuals who continue to
receive funds. Most employees seem to accept this arrangement until they,
too, become financially insolvent, at which point many quit. Despite
financial distress, the sense of performing a vital mission for American
agriculture keeps most employees working long after employees of other
organizations would resign.

Five important aspects of rationing are apparent in both organ­
zations. First, the leader of the entire organization imposes rationing
upon some or all of the core and support elements. Elements which are
most restricted are those judged to be least necessary to the survival of
the organization. They are usually support elements, but can also include
core elements; for instance, one or two maneuver battalions may be insuf­
ficiently manned to keep the others up to strength. Second, rationing
is an extreme means of controlling the organization. In effect the or­
ganization's leadership is trying to prevent energy from leaving the or­
ganization unnecessarily, but to limit necessary supplies means that the
organization cannot function up to its capacity. Third, rationing can work best in an organization such as the NFO where employees feel they are accomplishing something constructive in spite of inadequate supplies. Fourth, rationing is only a temporary solution to an organization's problems. An employee of the Field Staff working for an extended period of time without a paycheck and having a family to support cannot give his full attention to finding ways to recruit additional members or collect dues. He will soon be worrying more about his own survival than that of the organization. A division that cannot provide defense or aid to its society because of extensive personnel shortages is useless to the Army. Thus, it would either have to be disbanded or brought up to strength. If the cores of these two organizations do not function at their maximum over a period of time, by producing higher farm prices or by providing defense and aid, their environments will have no need for them and they will cease to exist. Fifth, rationing is to be undertaken only after all other methods—buffering, leveling, and forecasting—have failed to control and defend the organization from the environment. Buffering, for example, is a logical method of the organization to deal with its environment. Rationing, on the other hand, is a last-ditch effort applied without much logic simply to save the organization. Using such drastic steps is very costly in economic, political, and social terms. Cutting off employees' paychecks or leaving units unable to function brings into question the ability of these organizations to function within their environments.

The above five points seem to substantiate Thompson's fifth proposition. Rationing is a last effort when all else has failed to ensure the survival of the organization within the environment.
There are two ways that these organizations can try to overcome the environmental fluctuations which necessitated rationing. They may simply wait until time rectifies the environmental irritants, e.g., the end of a recession for the NFO, or a change of Army priorities which will give the division adequate personnel. If time will not rectify the situation, these organizations must reprogram their cores to supply items needed by the changed environment. The NFO can once again become a small organization serving only those areas which will support it; the division, with Army approval, may become a smaller task force which can perform with fewer personnel. An organization must restructure itself to operate effectively and efficiently within its environment.
PART THREE
CHAPTER VI

CONCLUSION

Validity and Utility

This study has established support for the validity of five of Thompson's propositions (as outlined in *Organizations in Action*) when applied to the two widely differing organizations discussed here. As has been shown, they can be enlarged upon and restated, but it is impossible to find fault with Thompson's basic premises. It is conceivable that the remainder of Thompson's propositions are equally valid, though it has not been possible to discuss them in this paper.

The utility of these propositions is established by the fact that, once understood, they can be combined with empirical knowledge to analyze why, when and how an organization reacts to its environment. Their ultimate value lies in their ability to make the science of organizational management easier to understand and to use. A part of this science includes the foretelling of the need for future actions on the part of various organizations. For example, if the NFO accomplishes its goal of raising farm prices, it must recognize that some other segment of society will have lost a proportionate amount of revenue. It must anticipate the resultant hostility and adapt itself by the means advanced by Thompson, e.g., strengthening its sealing off procedures to prevent the hostile elements from interfering in the functioning of its core and support
technologies, and establishing an agency among its support elements which would buffer the entire organization by maintaining a positive public relations program. For example, this would include explaining how the rise in prices benefits farmers and society as a whole.

Point of Departure

Thompson describes two very different types of mechanisms in the five propositions discussed in this paper. Sealing off and rationing are both extreme, almost instinctive mechanisms to restrict negative entropy; buffering, leveling, and anticipation and adaptation are methods used when an organization is fairly sure of its stability. These two categories are differentiated by the certainty or uncertainty with which the organization views its environment in specific instances. Since the G-1 Office is fairly sure of its existence, it can utilize buffering, leveling, and anticipation and adaptation to a much greater degree than can the NFO. There are circumstances, however, when it has little control, such as in its allotment of replacements, and must, therefore, use sealing off and rationing. No organization has enough power to control its environment completely and totally eliminate uncertainty.

It was noted in this analysis of Thompson's propositions that the support elements of both organizations utilized the mechanisms described in acting for or upon the core elements. Therefore, the support elements act to shield the core from the environment and thus reduce uncertainty. We have probably followed the line of thought envisioned by Thompson when he stated, "As a point of departure, we suggest that organizations cope with uncertainty by creating certain parts specifically to deal with it,
specializing other parts in operating under conditions of certainty or near certainty. As envisioned by this author, the support elements deal with the uncertainties of the environment so that the core elements can work in relative certainty. The importance of the support element is emphasized by the negative example of the two organizations. Neither has an output support element since there are almost no ways of rationing, leveling, buffering, or anticipating contracted farm prices or the need for defense or aid. Therefore, their cores still face the uncertainty of not knowing whether they can deliver the products needed or if they can achieve their goals or even survive.

Criticism

Thompson does not seem to give a clear definition of an organization to facilitate the reader's understanding of the complex terminology he uses. For example, he does not define the boundaries of the core of an organization as differentiated from other organizational elements. It is possible he is leaving more precise definitions up to his readers, and it is hoped that this paper has been useful in this successive approximation process.

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CHAPTER VII

SELECTED BIBLIOGRAPHY


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