

CONTROL: THE DOUBLE-BIND  
IN ORGANIZATIONAL POWER

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THESIS



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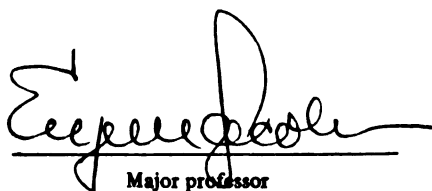
CONTROL: THE DOUBLE-BIND IN ORGANIZATIONAL POWER

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## ABSTRACT

### CONTROL: THE DOUBLE-BIND IN ORGANIZATIONAL POWER

By

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The purpose of this study was twofold: 1) It was designed to examine, in a laboratory situation, the Tannenbaum (1968) contention that the more control an individual has in an organization, the more control the organization has over that individual; and 2) It was designed to explore the possibility that a differential amount of power in an organization may be accorded individuals in equal positions of legitimate authority in a manner analogous to the Aronson and Golden (1962) finding. That is: Blacks having less influence than did their White counterparts who presented identical arguments.

Fifty-nine White male introductory psychology students, who received class credits for their participation in research, were employed as subjects. They participated in groups of three consisting of one subject and two White male confederates employed by the researcher.

The subjects were told that the purpose of this project was to examine the relationship between attitudes about ecology and the

content of a speech. The subjects were also told that they had to have a supervisor guide them in their speech preparations. In two experimental conditions, the subjects were given vitas of three persons, whom they had never met, and told to choose one individual as their supervisor. The manner in which the group's supervisor was chosen set up three experimental conditions: PDM-1. In this situation the subjects stated a preference for their supervisor and received the individual of their choice. PDM-2. In this situation the subjects stated a preference and received someone other than the individual of their choice. APPOINTED. In this situation the subjects were given no opportunity to express a preference regarding their supervisor; he was arbitrarily appointed.

There were four supervisors who role played each of the three individuals for whom vitas were given to the subjects. Two of the supervisors were Black and two were White, thereby establishing two additional experimental conditions.

Each supervisor attempted to influence the subjects to make an effort to prepare a high-quality speech outline (the experimental task). To aid the subjects in their work, they were told that a paper on speech style had been reserved for them and that they should examine the paper and, in general, make every effort to do the best job that they could.



Three hypotheses were advanced: 1) Where subordinates have influence over who is named their supervisor and receive the man of their choice, there will be a higher proportion of subjects examining the speech style papers and making a general effort to do quality work, than when the supervisor is arbitrarily appointed without any consideration for the subordinates' opinions. 2) Where subordinates have influence over who is named supervisor and do not receive the man of their choice, there will be a higher proportion of subjects examining the speech style papers and making a general effort to do quality work, than when the supervisor was arbitrarily appointed without any consideration for the subordinates' opinions. 3) No differences will exist in the proportion of subjects examining the speech style papers and making a general effort to do quality work as a function of the race of their supervisor.

The data indicated that differential perceptions of influence in the supervisory selection process were established by the treatment conditions and there were no differences, in perception of influence, within the two supervisor groupings, Black Supervisor and White Supervisor. These data lead to the conclusion that the obtained results were a function of the roles being played and not idiosyncratic to the individuals playing the roles.

Regarding the three hypotheses, the results indicated that no differences were found in the average amount of effort exerted as a

function of the three treatment conditions, or as a function of the race of the supervisor. It appeared that the Tannenbaum theory was tested and not supported in this experimental situation and that there was no effect analogous to the Aronson and Golden (1962) finding.

Possible criticisms of the experimental procedure were discussed and the results were interpreted in full light of these. Generally, it was concluded that though the results were not in a direction to support the Tannenbaum model, the data may reflect the artificial nature of the experimental situation more than the Tannenbaum notions of control and that further research is necessary.

Approved \_\_\_\_\_

Date \_\_\_\_\_

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CONTROL: THE DOUBLE-BIND IN ORGANIZATIONAL POWER

By

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A THESIS

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To my wife, Donna

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## Chapter I

### INTRODUCTION

To date, the study of control within the formal organization structure has been discussed, primarily, in a taxonomic manner. Though these attempts have taken two distinctive paths, the sociologists dealing with the structural models and the psychologists dealing with the interpersonal-structural models, both disciplines have attempted only to define a classification system through which they view control within organizations.

The sociologists' attempts to deal with this phenomenon have their theoretical underpinnings in the formulations of Max Weber (1947). The observational research of Weber resulted in his delineating three forms of legitimate rule. These were: 1) Rational-legal authority--this type of rule rests purely on enactment. The basic idea is that laws can be enacted and changed at will by formally correct procedures and that the right to govern is based on a formal written rule. 2) Traditional authority--this mode of authority rests on the belief of the sacredness of the social order. Certain people have the legitimate authority to rule others because this is the way it has always been. 3) Charismatic authority rests on the affectual

and personal devotion of the follower to the lord and his gifts of grace. They comprise especially magical abilities, revelations of heroism, power of the mind and of speech.

Variations on the Weberian theme of power are numerous (Etzioni, 1969; Goldhammer and Shils, 1939; Gulick and Urwick, 1937; Blau and Scott, 1962). Though the models presented by these neo-Weberians may differ in varying degrees, they are nonetheless attempts to deal with the problem of control in the formal organization structurally.

Psychologists have traditionally differed from sociologists in their study of power and control.<sup>1</sup> While remaining cognizant of the structural variables relevant to the concept, particularly the Weberian notion of legitimacy, they deal primarily with the interpersonal and intrapersonal dynamics of control (Cartwright, 1965; Kahn and Boulding, 1964; Katz and Kahn, 1966).

The psychological study of control is replete with intervening variables that attenuate any one systematic formulation of the concept. Sources of variance traditionally taken into account are the influencing agent, his method of exerting power, the individual subjected to the influence attempt and the situation in which the

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<sup>1</sup>In psychology the relationship between power and control is analogous to the concepts of potential and kinetic energy in Physics. That is, power refers to the potential to influence while control refers to the result of an influence attempt.

influence attempt is made. This list, though not exhaustive, gives some indication of the sources of variance that the psychologists have considered significant in their consideration of the concept of power.

Beyond taxonomic formulations, relatively little empirical research has been pursued involving control in organizations. Tannenbaum (1968), positing the notion of the control graph, represents one serious attempt to move beyond this primitive mode of organizational research. It is the Tannenbaum contention that it's possible to measure the control that a particular level in an organization has over its environment, by asking the people on a particular level who controls whom, or how much control does one level have over another. His main theoretical contribution comes from his notion and demonstration that when an organization increases the control that a particular level has over its environment, it thereby increases its ability to control that level of the organization. In short, he conceptualizes the notion of control in a non-zero sum context instead of in a zero sum context.

The psychologists' understanding of the phenomenon of control was advanced immeasurably by the theoretical formulations of French and Raven (1959). In their paper, "The Bases of Social Power," French and Raven maintain that the phenomena of power and influence involve a dyadic relation between two agents which may be examined



from two points of view: a) What determines the behavior of the agent who exerts power? b) What determines the reactions of the recipient of this behavior? Dealing primarily with the second point of view, they define a theory of power and influence which explains many of the social phenomena observed each day.

French and Raven define psychological change at a level of generality which includes changes in behavior, opinions, attitudes, goals, needs, values, and all other aspects of a person's psychological field. Accordingly, change is defined as any alteration of the state of some system "a" over time. The amount of change is measured by the difference between the state of system "a" at time 1 and time 2. They go on to state

change in any psychological system may be conceptualized in terms of psychological forces. But it is important to note that the change must be coordinated to the resultant force of all the forces operating at the moment. Change in an opinion, for example, may be determined jointly by a driving force induced by another person, a restraining force corresponding to anchorage in a group opinion, and an own force stemming from the person's needs (p. 151).

In brief, the five bases of social power defined by French and Raven fall into two general categories: 1) those in which the internalization of a particular value or ethic is prerequisite (legitimate, referent, and expert powers) and 2) those which are completely divorced from the internalization phenomenon and dependent on the presence of the influencing agent (reward and coercive powers).

Resulting from this dichotomy, differential predictions can be made regarding the amount and kind of behavior change that can be induced as a function of an individual's perception of his relationship with a particular leader or organization.

Research (Bachman et al., 1968) employing the Tannenbaum (1968) notion of control and the French and Raven (1959) model of social power yielded interesting results. In a study of control, performance, and satisfaction, Bachman et al. say:

It is of particular interest to note that the degree of control exercised by an office manager over his subordinates was positively related to the control they exercised over him. These findings clearly imply that control at one level is not exercised at the expense of another level. On the contrary, the data indicate that any increase in control by office manager, subordinates, or both should be associated with higher satisfaction and performance (p. 225).

They go further to note that

Total control, performance and satisfaction with the office manager were all relatively high for the office manager whose leadership was perceived as resting largely upon his skill and expertise and upon his personal attractiveness. Conversely, the less effective office manager was one who appeared to rely more heavily upon the use of rewards and sanctions and upon the formal authority of his position, as a formal description of his role might indicate (p. 225).

In formal organizations, a supervisor, by virtue of holding his position, is invested with the "legal right" to prescribe work relevant behavior for his subordinates. To facilitate compliance with his work relevant behavioral prescriptions, the supervisory

position carries with it the capability to mediate rewards and sanctions for the subordinate positions. By using his "legal right" to prescribe behavior, his legitimate power, the supervisor can control the structural aspects of the work environment; that is, he can ensure dependable role performance by his subordinates. He may ensure (a) the meeting or exceeding of quantitative standards of performance and (b) the meeting or exceeding of qualitative standards of performance.

In the past, the control of these structural variables was considered to be all that was necessary to have an efficiently run organization (Weber, 1947). This limited control model, based on Weber's exchange notion (a fair day's pay, with explicit control, buys a fair day's work from the employee), appeared to be adequate for the early 20th century German bureaucratic government service and for the production line, or manual labor situation in this country. Because most work was manual labor at that time, all that was necessary in a work situation was for the subordinate to yield to the legitimate will of his supervisor and production quotas would be met. Little was required of the man beyond his compliance. Though far from perfect, the prevailing emphasis on structural control did appear to be adequate because production quotas were met.

With the advent of automation, fewer and fewer jobs are manual in nature and therefore the kind of control that needs to be exerted

by the supervisor is broader than the structural control exerted by his pre-automation predecessor. As a result of automation, a large number of the jobs are technical in nature, involve some sort of specialized training and require that the individual do more than produce at a specified level of quality and quantity. To a greater extent than ever before, these jobs require that an individual engage in cooperative activities with his fellow workers, that the worker undertake some sort of self-training for either additional organizational responsibilities, or to keep abreast of advancements in his field and that he offer creative suggestions regarding his work and the work of others. Activities of this sort are best referred to as situational activities.

Katz and Kahn (1966, p. 302) address themselves to this state of affairs.

When we think of leadership in contrast to routine role performance, however, we become particularly interested in the kinds of individual behavior which go beyond required performance and realize more fully the potential of a given position for organizational influence. In other words, we consider the essence of organizational leadership to be the influential increment over and above mechanical compliance with the routine directives of the organization. Such an influential increment derives from the fact that human beings rather than computers are in positions of authority and power.

Because the post-automation jobs require, for their meaningful execution, these situational kinds of activities, the supervisor

must have the power to ensure that these activities are engaged in. The legitimate power provided by the formal organization does nothing, or at best very little, in terms of providing the power to influence subordinates regarding situational activities. By virtue of position, the organization provides structural power. However, the acquisition of situational power falls squarely on the shoulders of the supervisor.

Situational power as conceptualized here is the ability to influence men to do something more than they are required, by organizational law, to do. The French and Raven (1959) model indicates that there are two bases of power that possess this capability:

a) Expert power and b) Referent power.

While situational control based on expert power (the capability to influence because of expertise in a particular area) is sufficient to control people, the range of activities over which the supervisor may exert control is very narrow and any attempt to influence in realms other than that in which the supervisor has expertise will result in diminishing the power. Since all organizational functions are not confined to one particular area, influence based primarily on expert power would result in an inability to exert general influence. Though expertness is an extremely important source of power in organizations, it alone is not sufficient to influence across the broad spectrum.

Situational control based on referent power (the capability to influence because of the personal attraction of the influencer) is very broad in its scope. Because it is not content area specific, supervisors who have situational control based on referent power are able to influence their subordinates in many different areas. It might also be reasoned, in fact, that supervisors who situationally control with referent power as their base, also have more dependable structural control. That is, when a supervisor possesses referent power his ability to control the structural activities of the work situation is not dependent on his presence or his ability to monitor the adherence to his structural dictates. Because his power to influence has been internalized by the subordinate, his symbolic presence is always felt.

Initially it would seem that there is nothing that an organization could do to aid its supervisors in acquiring situational power. However, there exists a number of meaningful activities that may be engaged in toward this end. Most of these activities (e.g. T-groups or extensive management training) are very costly in terms of both time and money and may or may not produce the desired result. Keeping in mind the Tannenbaum (1968) notion of control, that is, by giving more control to subordinates it increases the extent to which they are controlled, a simple procedural change may accomplish this task.



Generally, organizational hiring policy is such that the organizational hierarchy selects the individual who is to fill a particular leadership position and then informs the subordinates of that position who is to be their direct supervisor. Through this procedure the superior is invested only with the structural power that goes with his position. If, on the other hand, the subordinates have "greater control" over who is to be their leader, then the individual who is selected will be invested with the structural power of his position and perhaps an increment of situational power because of his subordinates' involvement (control) in his selection.

Greater control, ideally, means that the subordinates have the final decision about who is to be their superior. However, the constraints of organizational reality are such that a procedure of this sort is not possible. Instead, if subordinates realized that their needs and opinions have a great deal of significance regarding who is hired, this situation would more closely approximate the ideal while not being a threat to the right of the management to make decisions regarding whom shall be hired. As a result, the subordinates would increase their power, the management would not lose any of its power and theoretically the supervisor should be invested with both structural and situational power. It is the aim of this research to examine, in the laboratory, the results of such a procedural change.

Situational power (referent power within the organizational framework) is a social process and as such subject to systematic as well as non-systematic influences from the environment. Herzberg (1959) in his examination of another social process, job satisfaction, found that the systematic influences he called "satisfiers" were important in a person's satisfaction on the job. He also found, however, that the not so systematic influences called "dissatisfiers," were, at least equally important in an individual's satisfaction with his job. So important are these dissatisfiers that it led him to conclude that the crucial aspect in increasing job satisfaction is not increasing the number of satisfiers but, in fact, decreasing the number of dissatisfiers.

As a social process, situational power may be influenced by such variables as the sex of the supervisor and/or the racial composition of the group. The lists of these influences are endless and the relative importance of each an open question. Societal pressures have, however, made one of the aforementioned influences, race, a significant one. Aronson and Golden (1962) have demonstrated that the race of the communicator is not an "irrelevant" aspect of the communication situation. They found that Black communicators had less persuasive influence over an audience than did their White counterparts who made identical arguments.

Today with an emphasis being placed on the development of management personnel from minority groups, including Blacks and women, and with full knowledge that situational power is subject to assorted influences, the implications of the Aronson and Golden study take on new significance. Could it be that within the formal organizational framework, a differential amount of situational power may exist that is analogous to the Aronson and Golden finding? In theory building, therefore, the effects of race of supervisor must be addressed. So to examine the theoretical aspects of the phenomenon in a realistic fashion, it is the purpose of this research to simulate varying subordinate control situations and to vary race of supervisor to examine their joint effects on the situational power of the supervisor.

Toward this end, the following literature review will examine, in detail, the theories previously referred to and present the relevant empirical findings on which the theories are based. It will also examine the theory and literature regarding the effects of participation in decision-making on management and labor.

## Chapter II

### LITERATURE REVIEW

#### Control in Organizations: The Tannenbaum Model

Control as conceptualized by Tannenbaum (1968) is a dynamic rather than a static process. It is perhaps best understood in terms of "a cycle beginning with an intent on the part of one person, followed by an influence attempt addressed to another person, who then acts in some way that fulfills the intent of the first" (p. 5). Basic to this model is the belief that control is a special case of social causation where a person "O" causes another "P" to act in an intended way. This definition of control is quite congruent with other formulations (Cartwright, 1959; Dahl, 1957; French and Raven, 1959; Collins and Raven, 1969).

This model of control differs significantly from the models advanced by mechanistic organizational theorists (Weber, 1947; Goldhammer and Shils, 1939). It was an inherent assumption of the mechanistic theorists that the sole basis of power was coercion. In describing the functioning of modern organization, it is stated as organizational law that "the authority to give the commands required for the discharge of these duties is distributed in a stable

way and is strictly delimited by rules concerning the coercive means, physical, sacerdotal, or otherwise, which may be placed at the disposal of officials" (Weber, 1966, p. 70). While these theorists limit their conceptualization of control to that based on coercion, Tannenbaum's model does not. In his model he recognizes that coercion is not the only basis from which an individual, or an organization, may control.

Secondly, Tannenbaum differs from other models in that in the traditional analysis of control, the phenomenon is conceptualized as being a unilateral process; that is "one either leads or is lead, is strong or weak, controls or is controlled" (p. 11). Basic to the new model is the idea that control is not a unilateral process but, instead, a mutual process. In a sense, one person does not do all of the leading and another all of the following. The model recognizes that there are no absolutes; there exists no rigidly defined dichotomy between being a leader or being led, between being strong or being weak, or in fact, between controlling and being controlled. There are, indeed, subtle interactions.

Perhaps the most radical departure from the traditional school of thought may be found in Tannenbaum's challenging the most basic assumption on which previous theory is built. He maintains

traditional analyses of social power assume that the total amount of power in a social system is a fixed quantity and that the leaders and followers are engaged

in a "zero sum game": increasing the power of one party must be accompanied by a corresponding decrease in the power of the other. The total amount of power in a social system may grow and leaders and followers may therefore enhance their power jointly. Total power may also decline and all groups within the system may suffer corresponding decreases (p. 12).

It is the essence of the Tannenbaum thesis that all organizations differ on two crucial aspects: 1) the total amount of control exerted by the organization and 2) the relative amount of control exerted by the respective hierarchical echelons of an organization. These crucial aspects are graphically illustrated in the control graph used by Tannenbaum (1956) and others (Tannenbaum and Georgopoulos, 1957; Smith and Tannenbaum, 1963; Oncken, 1971).

The horizontal base of this graph represents the hierarchical scale in an organization and the vertical axis, the amount of control exercised by the respective hierarchical echelons. The measurement of the total amount and relative amount of control is defined as the average judgments by organization members in response to questionnaire items dealing with the amount of influence or control exercised by various levels or groups in their organization. The graphical configuration resulting from such a procedure makes it clear that there are many, many different possibilities regarding different organizations' total control (height of curve) and the relative amounts of control of the varying levels (slope of the graph).



At this point it is essential that an issue is addressed which is of central importance to the Tannenbaum formulation. A question may easily be raised regarding exactly what is being measured and therefore talked about here. Is it perceived control or actual control? In addressing this issue, it should be realized that though the measurement procedure involves asking organization members about their perceptions of control, the author does present construct validity data (Tannenbaum, 1968) to indicate that the perceptions are accurate reflections of actual power. Therefore, though control is measured by organization members' perceptions, these perceptions are valid reflections of reality and as a result are measures of actual power.

The ramifications of this new conceptualization are presented nicely by Tannenbaum.

The assumption of a variable amount of control in organizations represents, we believe, an assumption of basic theoretical and practical importance. Theoretically, this assumption opens up a number of possibilities that would not otherwise be apparent. Consequently, it allows us to resolve what might otherwise appear to be opposing and irreconcilable arguments concerning the implications of control in organizations (p. 12).

The properties of this model allow the author to speculate that it is possible, in a work situation, to increase the total amount of control in an organization and at the same time hold constant the relative amounts of control among the organizational

hierarchy. This increase in the total amount of control may be accomplished in two ways: 1) The organization may acquire control over larger and larger segments of its environment. 2) "The second concerns a number of internal conditions that subsume (A) structural conditions expediting interaction and influence among members and (B) motivational conditions implying increased interest by members in exercising control and a greater amenability by members to being controlled"<sup>1</sup> (Tannenbaum, 1968, p. 14).

The model is not explicit in terms of explaining why increased involvement and interest in control by organization members will result in a greater amenability by members to being controlled. However Tannenbaum does present two theoretical models that would be capable of explaining such a phenomenon.

### Control and Exchange

Based on the work of Blau (1964), Homans (1961), and Thibaut and Kelley (1959), control conceptualized in terms of social exchange theory involves exchanges of resources between the person who controls and the person who is being controlled.

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<sup>1</sup>Tannenbaum maintains that one method through which the appropriate motivational conditions may be achieved is through the employment of participation in decision making. This process, however, will be addressed in detail at a later point.

The exercise of control may be viewed as an exchange of some valued resource dispensed by one person in return for compliance on the part of another. The total amount of control or power in a system may therefore be seen as a function of the amount of exchange involving compliance. This amount may change, because the quantity of resources among members changes or because of a change in the rules regarding exchange (p. 15).

In a sense, a participant will remain in a relationship with his supervisor only as long as the inducements offered him are as great or greater than the contribution he is asked to make.

#### Control and Partial Inclusion

The principal of partial inclusion was developed by F. Allport (1933) to refer to the segmental involvement of people in a social grouping. At the individual level, the role that an organization requires its members to play involves only a segment of the player's total being. The full range of an individual's capabilities does not have the opportunity to manifest itself in terms of the role being played and as a result he is only partially included in the organization.

Because only part of the member is included, only a part of him is at the disposal, so to speak, of the organization. Thus there are limitations to the range of activities that are subject to influence; excluded from influence is that large segment of the person that does not belong to the organization (p. 16).

Anything that enhances member's personal commitment to or identification with the organization is implicitly including them more fully within the organization and hence is increasing the possibility of an expanded total amount of control. The human relations approaches are designed to increase identification of members and may therefore result in greater inclusion and greater control. Similarly, giving members some influence in the organization generally has the effect of increasing their identification with the organization and their inclusion in it. Hence increasing members' influence may also increase their influenceability and so contribute to a higher level of control in the system.

In summary, this model represents a radical departure from traditional theories and, as most models of this kind, is largely an untested one. To believe that power and control relationships are other than zero sum in nature, is foreign to this culture's, as well as many other cultures', way of thinking. Nonetheless, the model does represent a fresh approach to an age-old problem and as such, deserves serious consideration in psychology's attempt to understand control in organizations.

### The Bases of Social Power

The French and Raven (1959) theory of social influence and power is limited to influence on the person, P, produced by a social agent, O, where O can be either another person, a role, a norm, a group or a part of a group or a work organization.

The influence of O on system "a" in the life space of P is defined as the resultant force on system a which has its source in an act of O. This resultant force induced by O consists of two components: a force to change the system in the direction induced by O and an opposing resistance set up by the same act of O. It therefore follows that the strength of the social power of O over P in some system "a" is defined as the maximum potential ability of O to influence P in "a."

Inherent in the French and Raven definition of social power are two salient factors that need to be taken into account. The first of these is the dependence of system "a" on O. It is assumed, in this formulation, that any change in the state of a system is produced by a change in some factor upon which it is functionally dependent. In short, then, psychological change and stability can be conceptualized in terms of dynamic dependence.

A second factor which is salient, when considering social power, is observability as a basis for dependence. The authors, with an example, handle this nicely:

Consider the example of three separated employees who have been working at the same steady level of production despite normal, small fluctuations in the work environment. The supervisor orders each to increase his production, and the level of each goes up from 100 to 115 pieces per day. After a week of producing at the new rate of 115 pieces per day, the supervisor is removed for a week. The production of employee A immediately returns to 100 but B and C return to only 110 pieces per day. Other things being equal, we can infer that A's new rate was completely dependent on his supervisor whereas the new rate of B and C was dependent on the supervisor only to the extent of five pieces. Let us further assume that when the supervisor returned, the production of B and C returned to 115 without further orders from the supervisor. Now another month goes by during which B and C maintain a steady 115 pieces per day. However, there is a difference between them: B's level of production still depends on O to the extent of 5 pieces whereas C has come to rely on his own sense of obligation to obey the orders of his legitimate supervisor rather than on the supervisor's external pressure for maintenance of his 115 pieces per day. Accordingly, the next time the supervisor departs, B's production again drops to 110 but C's remains at 115 pieces per day. In cases like employee B, the degree of dependence is contingent on the perceived probability that O will observe the state of the system and note P's conformity. The level of observability will in turn depend on both the nature of the system (e.g. the difference between a covert opinion and overt behavior) and on the environmental barriers to observation (e.g. O is too far away from P). In other cases, for example that of employee C, the new behavior pattern is highly dependent on his supervisor, but the degree of dependence on the new state will be related not to the level of observability but rather to factors inside P, in this case a sense of duty to perform an act legitimately prescribed by O. The internalization of social norms is a related process of decreasing degree of dependence of behavior on an external O and increasing dependence on an internal value; it is usually assumed that internalization is accompanied by a decrease in the effects of level of observability (p. 155).

The authors define five bases of social power: 1) reward power, based on P's perception that O has the ability to mediate rewards for him; 2) coercive power, based on P's perception that O has the ability to mediate punishments for him; 3) legitimate power, based on the perception by P that O has a legitimate right to prescribe behavior for him; 4) referent power, based on P's identification with O; 5) expert power, based on the perception that O has special knowledge or expertness. A discussion of each follows.

#### Reward Power

The power of O over P is a function of the magnitude of the rewards which P perceives that O can mediate for him. Reward power depends on O's ability to administer positive valences and to remove or decrease negative valences. Note here that reward power depends upon the probability, that is, perceived probability that O can mediate the reward.

The authors maintain

the new state of the system induced by a promise of reward will be highly dependent on O. Since O mediates the reward, he controls the probability that P will receive it. Thus P's new rate of production will be dependent on his subjective probability that O will reward him for conformity minus the subjective probability that O will reward him even if he returns to his old level. Both probabilities will be greatly affected by the level of observability of P's behavior (p. 156).

The range of the reward power of O over P is totally dependent on P's perception of O's ability to give rewards in varying situations. When a situation arises where P perceives O as being unable to mediate positive sanctions O has no power over P. While it is true that the use of rewards within the range of reward power increases the power, it is equally true that unsuccessful attempts to exert reward power outside of the range of power would tend to decrease the power.

### Coercive Power

Coercive power is similar to reward power in that it is also dependent on P's perception of O's ability to mediate valences. For O this power has its basis in the expectation on the part of P that he will be punished by O if he fails to conform to the influence attempt. Thus,

negative valences will exist in given regions of P's life space, corresponding to the threatened punishment by O. The strength of the coercive power depends on the magnitude of the negative valences of the threatened punishment multiplied by the perceived probability that P can avoid the punishment by conformity (p. 158).

In comparing this coercive power to reward power, the authors make a very salient distinction.

The distinction between these two types of power (reward and coercive) is important because the dynamics



are different. The concept of "sanctions" sometimes lumps the two together despite their opposite effects. While reward power may eventually result in an independent system, the effects of coercive power will continue to be dependent. Reward power will tend to increase the attraction of P toward O, coercive power will decrease this attraction. The valence of the region of behavior will become more stressful, acquiring some negative valence from the threatened punishment. The negative valence of punishment would also spread to other regions of the life space (p. 158).

### Legitimate Power

Legitimate power of O over P is defined as that power which stems from internalized values in P which dictate that O has a legitimate right to influence P and that P has an obligation to accept this influence.<sup>1</sup> P may accept an induction from O simply because he had previously promised to help O and he values his word too much to break the promise. In all cases, the notion of legitimacy involves some sort of a code or standard, accepted by the individual, by virtue of which the external agent can affect his power.

There are three bases of legitimate power. These are:

- (1) Cultural values. Item O has characteristics which are specified by the culture as giving him the right to prescribe behavior for P, who may not have these characteristics. In some cultures these include age, intelligence, caste and physical characteristics.

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<sup>1</sup>Note that legitimate power is very similar to the notion of legitimacy of authority employed by Weber (1947); however, legitimate power here is not always a role relation.

(2) The acceptance of social structure is another basis of legitimate power. If P accepts as right the social structure of his group organization or society, especially the social structure involving a hierarchy of authority, P will accept the legitimate authority of O, who occupies a superior office in the hierarchy. Thus legitimate power in formal organization is largely a relationship between offices rather than between persons. (3) Designation by a legitimizing agent is a third basis for legitimate power. An influencer, O, may be seen as legitimate in prescribing behavior for P because he has been granted such power by a legitimizing agent whom P accepts. Thus a department head may accept the authority of his vice-president in a certain area because that authority has been specifically delegated by the president (p. 160).

The results of a legitimate power based induction usually has high dependence on O though it may become independent. Here, however, the degree of dependence is not related to the level of observability. Since legitimate power is based on P's values, the source of the forces induced by O include both these internal values and O.

### Referent Power

According to French and Raven

the referent power of O over P has its basis in the identification of P with O. By identification, we mean a feeling of oneness of P with O, or a desire for such an identity. P's identification with O can be established or maintained if P behaves, believes and perceives as O does. Accordingly O has the ability to influence P, even though P may be unaware of this referent power (p. 162).

The basic criterion for distinguishing referent power from both coercive and reward power is the mediation of the punishment and the reward by O. To the extent that O mediates the sanctions we are dealing with coercive and reward power; however, to the extent that P avoids discomfort or gains satisfaction by conformity based on identification, regardless of O's response, we are dealing with referent power.

The new state of a system produced by referent power may be dependent on, or independent of O, but the degree of dependence is not affected by the level of observability to O. Often P is not consciously aware of the referent power which O exerts over him. There is probably a tendency for some of these dependent changes to become independent of O quite rapidly.

### Expert Power

This power refers to the capability of an individual O to influence another individual P in some system "A" in which O is acknowledged to have a great deal of knowledge or expertise. In this situation probably P evaluates O's expertness in relation to his own knowledge as well as against some absolute standard.

The authors maintain that

expert power will produce a new cognitive structure which is initially relatively dependent on O, but

informational influence will produce a more independent structure. The former is likely to become more independent with the passage of time. In both cases, the degree of dependence on 0 is not affected by the level of observability (p. 164).

The concept of social power in general and the French and Raven model in particular have been the inspiration for a good deal of research. In the remainder of this section a small segment of this literature will be reviewed.

#### The Bases of Social Power: Research

Zipf (1960) studied resistance and conformity under reward and punishment. Here an experiment was designed to compare influence by means of rewards and punishments for differential effects on motivation to conform (conformity force) and motivation to resist (resistance force) and the resulting change in actions. Subjects were premeasured on the need to be independent of control figures. It was demonstrated that the conformity force taken as a combination of valence of the goal and the probability that trying to conform will lead to the goal, is positively related to conformity of action as measured by increase in speed following a sanctioned induction to go faster. It was further found that the resistance force is negatively related to conformity of action as measured by increase in speed after a sanctioned induction to go faster and that influence

by means of punishment produces a greater resistance force than influence by means of reward.

In much the same vein, French et al. (1960) examined coercive power and forces affecting conformity. In a laboratory experiment 90 subjects worked on a card sorting task under a supervisor who created various conditions of coercive power. Thirty-three (legitimate fine) subjects were threatened for working too slowly and later fined the amount they had been told was legitimate; twenty-two (illegitimate fine) subjects were threatened and fined the same amount which, in this condition, was twice the specified legitimate amount of fine; and twenty-one (no fine) subjects were neither threatened nor fined although they were told they were working too slowly. It was concluded that punishment forces and resistance forces are independent determinants of conformity to coercive power. Although it appears that legitimacy affects resisting forces, this experiment indicates that such effects are not mediated by low attraction to the supervisor.

The effects of social power on aspiration setting and striving was examined by Zander and Curtis (1962). Individual subjects were observed in a situation for studying the level of aspiration, while they were to perceive themselves as members of a team which was not physically present. In two experimental conditions (referent and coercive) the subjects were provided standards of individual

performance for a series of trials, said to originate in other members of their team. Events were so arranged that subjects, over the series, did not attain the performance levels put before them by the others. In a third condition (control) subjects were not provided standards of performance from others. It was found that

- (1) Subjects in a referent relationship with the supervisor make lower evaluation of their scores than do subjects in a coercive relationship with the supervisor.
- (2) Subjects in a referent situation obtain higher scores than do subjects in a coercive situation.
- (3) Subjects in a coercive situation reveal weaker motivation to reach a high score than do subjects in a referent situation.
- (4) Subjects in a coercive situation perceive the supervisor as less attractive than do subjects in a referent situation.
- (5) Subjects in a coercive situation state less acceptance of the supervisor's social pressures than do subjects in a referent situation.

An examination of group support, legitimate power and social influence was undertaken by Raven and French (1958). It was hypothesized that in an interdependent situation, an election process would serve to grant to an individual a legitimate right to a supervisory position. This would result in the supervisors having greater power to influence his fellow workers. A supervisor who did not have legitimate power would also be less accepted personally. Two work situations were created, both interdependent and identical

with the exception that in one case the supervisor was elected, and in the other the supervisor assumed his position without benefit of election. The hypotheses were substantially supported.

In a further investigation of the effects of legitimacy, Raven and French (1958a) employed methodology similar to that described earlier (Raven and French, 1958). It was concluded here that the net effect of nonlegitimate and coercive influence may be an increased discrepancy between private and public opinion and behavior with its resulting tensions. Eventually, it is predicted, that the worker would leave the situation, become hostile toward the supervisor, reject further influence completely, or otherwise express this tension.

Adolescent evaluations of rewarding, neutral and punishing power figures was examined by Brigante (1958). Two studies were executed in this research. In the first and most important study, 27 adolescent boys interacted with five power figures. Subjects solved problems about whose solutions each power figure made suggestions. Results showed that the rewarder was rated more favorably than either the neutral or punishing figure. It was also found that on a measure of the power figure's influence one week after the original interaction, the neutral figure had exerted more influence than did either the rewarding or punishing figures. It was concluded that the study points to the importance of distinguishing between

rewarding and punishing power and emphasizes that the consequences of inducing different amounts of power depend on the particular way in which power has been experimentally induced.

The bases of supervisory power were studied by Bachman, Bowers and Marcus (1968). Here the bases of power were examined in five organizations: 1) salesmen in branch offices, 2) faculty in liberal arts colleges, 3) agents in life insurance agencies, 4) production workers in an appliance firm, and 5) workers in a utility company. The data, based on questionnaire responses, provides fairly consistent findings.

(1) Legitimate power was rated one of the two most important bases of power; however, it did not seem a consistent factor in organizational effectiveness, nor was it related significantly to the total amount of control. (2) Expert power was the other very prominent basis of power, and it was strongly and consistently correlated with satisfaction and performance. Of the five bases, expert power was most positively related to total amount of control. (3) Referent power was of intermediate importance as a reason for complying with a supervisor's wishes, but in most cases it was positively correlated with criteria of organizational effectiveness. In two sites it was significantly and positively related to total amount of control. (4) Reward power was also of intermediate importance; in this case the correlations with organizational effectiveness and with total control were not consistent. (5) Coercive power was clearly the least prominent reason for compliance; moreover, this basis of power was often negatively related to criteria of effectiveness and in two cases negatively related to total amount of control (p. 236).



Student (1968), employing the Katz and Kahn (1966) concept of incremental influence, studied supervisory influence and work group performance. In this study incremental influence was empirically tested by relating twelve work group performance measures with measures of supervisors' social power. Referent power and expert power were conceptualized as incremental influence and considered qualitatively different from reward power, coercive power and legitimate power. Referent power and expert power are considered to be idiosyncratic in character and depend upon an individual's unique role behavior, while reward power, coercive power, and legitimate power are organizationally determined and designed to be equal for all supervisors on the same hierarchical level. As predicted, expert power was related to a low accident rate, referent power was somewhat related to measures of subordinate withdrawal, and both referent power and expert power were generally related to group measures of production performance. These results were regarded as supporting the concept of incremental influence.

### Participation in Decision Making

While many writers discuss participation in decision making (Campbell et al., 1970; Hinton and Reitz, 1971) perhaps the most

inclusive and definitive statement was made by Katz and Kahn (1966).

Speaking in systems theoretical terms, they maintain

we refer here, however, to the engagement of the individual in the system so that he is involved in decisions which affect him as a system member. In effect, he has both a voice and a vote in the subsystem in which he functions and a voice and a vote in the representation of that subsystem in the larger structure. And this type of participation also guarantees him an opportunity to share in the rewards of the group cooperation that constitutes the system (p. 381).

Employee participation in management decision making has been frequently discussed in the literature on management and has generated considerable pro and con comment (Marrow, Bowers and Seashore, 1967). To some writers, participation is the answer to most human difficulties in decision making. They argue that if an employee feels he is part of the process of making a decision, he will accept it more readily and be motivated to implement it more effectively (Elbing, 1970). The imposition of an apparently arbitrary decision, it is claimed, may invite a passive or a negative reaction (McGregor, 1960).

In their writings on participation in decision making, Likert (1961) and Tannenbaum (1966) agree that there are a number of benefits to be derived as a result of this mode of operation. (1) Systems of this sort tend to be ego enhancing. Indeed, members may derive satisfaction because of their need for self determination, or independence or power, or as a result of whatever satisfying meanings

the exercise of control may have for them. (2) Participation may result in both material and pragmatic rewards. "Participative decisions are more likely than hierarchical decisions to take into account the needs and interests of all parties, so that control is less likely to seem arbitrary and disadvantageous" (Tannenbaum, 1966, p. 98). (3) As a result of participation, jobs may become intrinsically more satisfying, they may become challenging and draw upon the sum total of the skills that an individual may have. (4) Participation reduces disaffection and increases the identification of members with the organization. Individuals, as a result, are more likely to feel some sense of commitment and responsibility relative to tasks that are brought before them in their capacity as decision makers. (5) Also inherent in participation is its capacity to enhance the control exercised by managers while increasing that of the rank and file members (Tannenbaum, 1966, 1968).

#### Participation in Decision Making: Research

One of the earliest studies done on authority patterns was done by Lewin, Lippitt, and White (1939). In a first experiment, Lippitt compared one group of five ten-year-old children, under autocratic leadership, with a comparable group under democratic leadership. In a second experiment Lippitt and White studied four

comparable clubs of ten-year-old boys, each of which passed successively five democratic periods, five autocratic periods, and two laissez-faire periods. In this second experiment personality differences were controlled by having each group pass through autocracy and then democracy and leader effects were controlled for by having a number of leaders play the varying roles. Extensive records of meetings were kept and parents and teachers were interviewed.

In the first experiment, hostility was thirty times as frequent in the autocratic as in the democratic group. Aggression was eight times as frequent. Much of this aggression was directed toward two successive scapegoats within the group; none of it was directed toward the autocrat.

In the second experiment, one of the five autocracies showed the same aggressive reaction as was found in the first experiment. In the other four autocracies, the boys showed an extremely non-aggressive pattern of behavior.

Four types of evidence indicate that this lack of aggression was probably not caused by lack of frustration, but by the repressive influence of the autocrat: a) outbursts of aggression on the days of transition to a freer atmosphere; b) a sharp rise of aggression when the autocrat left the room; c) other indications of generalized apathy, such as an absence of smiling and joking; and d) the fact that nineteen out of twenty boys liked their democratic leader better

than their autocratic leader and seven out of ten also liked their laissez-faire leader better. In their interpretation of this data, the authors state "a general statement on the data of aggression can be made in terms of four underlying factors: tension, restricted space of free movement, rigidity of group structure, and style of living (culture)" (p. 299).

Some effects of decision and discussion on coalescence, change and effectiveness was examined by Pennington et al. (1958). Twenty groups of five subjects per group were divided randomly into four treatment categories. Each subject twice ranked privately ten sets of five cities in order of population size. Five groups discussed the problem but announced no group decision. The results indicated that: 1) Coalescence was increased by group discussion, group decision and most of all by the combination of both treatments. 2) Change of opinion was significantly greater for groups permitted either discussion or decision, although the effect was much less pronounced with group decision alone. As was the case earlier, greatest change occurred when both were permitted.

Preston and Heintz (1949) studied the effects of participatory vs. supervisory leadership on group judgment. In this study members of several laboratory classes were asked to rank twelve potential presidential nominees in their own individual orders of preference. The subjects were then divided into groups of four or five each.

Leaders were elected, drawn aside and instructed to proceed in a participatory or a supervisory manner. Group rankings were then formulated. The results show that participatory leadership is more effective than supervisory leadership as a technique for effecting changes in attitudes. Responses to supplementary questionnaires revealed that (a) participatory subjects were satisfied with group rankings more often than supervisory subjects although the differences were not always significant (b) participatory subjects more often reported the task as being interesting and meaningful. Analogous results are also reported by Morse and Reimer (1956).

In a replication of Preston and Heintz (1949), Hare (1953) used thirteen-year-old boys as subjects and an analogous procedure. The data indicated that participatory leadership was more effective than supervisory leadership as a technique for changing opinions. In addition, the participatory leader generally had more influence on the group, a result not obtained with college students.

In a field study Lawler and Hackman (1969) examined the impact of employee participation in the development of pay incentive plans. The subjects were part-time workers who clean buildings in the evenings. Three autonomous work groups developed their own pay incentive plans to reward good attendance on the job (condition A). These plans were then imposed by the company on other work groups (condition B). There were two groups of control subjects: One talked with

experimenters about job attendance problems but received no additional experimental treatment, and the other received no treatment. A significant increase in attendance followed only condition "A." The researchers posited three possible explanations for the results.

(A) participation caused subjects to be more committed to the plan; (B) subjects who participated in the development of their plan were more knowledgeable about it; or (C) participation increased the employees' trust of the good intentions of management with respect to the plan.

Research done at the Harwood Manufacturing Company (Coch and French, 1948) has provided perhaps the most definitive statements regarding participation in decision making. In a study on overcoming resistance to change, four groups of workers were involved. The first group, the control group, had their new jobs timed, piece rates set, and the workers were informed that the changes were to take place because of competitive market conditions. This was the usual procedure. The second group employed a system of participation through representation. After the group representatives met and heard the need for the changes presented, they argued that the changes were possible without placing a strain on the workers. Special workers were then selected to help design and implement the new plan. The third and fourth groups received similar treatment to the second group, except that all of the members helped to design the new jobs.

The results indicated that the control group production dropped ten units, the "representative" group production dropped initially but eventually recovered to its original level and the "total participation" group's production dropped initially, recovered to original production levels very quickly and in a short time leveled off at an average of ten units greater than original production. In conclusion it was stated

it is possible for management to modify greatly or to remove completely group resistance to changes in methods of work and the ensuing piece rates. This change can be accomplished by the use of group meetings in which management effectively communicates the need for change and stimulates group participation in planning the changes (p. 305).

Anderson and Fiedler (1964) present results which are in general accord with those of Coch and French (1948). They studied the effects of participatory and supervisory leadership on group creativity. They compared the creativity of four-man groups under two conditions of leadership. The subjects were ninety freshman and sophomore Navy ROTC midshipmen and thirty NROTC seniors who served as group leaders. In fifteen of the groups, the leaders acted as chairmen who directed the group discussions and contributed to the task solution. In the other fifteen groups, leaders acted in a supervisory capacity: they directed and guided group discussion and they were allowed to encourage members or to reject ideas, but the leaders were prohibited from contributing to the solution of



the task. Groups having participatory leaders were generally superior in quantity of output while groups under supervisory leaders were superior in the quality of the product. Although leaders in the two conditions did not differ in their satisfaction with group product, the participatory leaders were more satisfied with their own individual contribution to the task. The leadership styles did not produce differences in the member's esteem for the leader or in the member's morale and satisfaction with the task.

While the presentation, to this point, has been purposely slanted to demonstrate that there are significant effects when participation in decision making is employed, it should be realized that there do exist variables that attenuate the relationship between participation in decision making and some of its reported results (Day and Hamblin, 1964). In this regard, a theory that has received much attention in recent years is advanced by Fiedler (1967). His basic thesis is that the type of leadership behavior required for effective group performance is contingent upon the favorableness of the group-task situation for the leader, where favorableness refers to the degree to which the group environment makes it easy or difficult for the leader to influence the group members. When the group-task situation is either highly favorable or highly unfavorable for the leader, controlling, managing, directive leadership behavior is

most effective, whereas permissive, considerate, nondirective leadership is needed for moderately unfavorable group-task situations.

Shaw and Blum (1966) in their examination of the effects of leadership style upon group performance as a function of task structure, test the generality of the Fiedler Contingency theory. In the study, five-person groups attempted three tasks under either directive or nondirective leadership. Leadership behavior was manipulated by instructions. The three tasks were selected to vary along the "solution multiplicity dimension," hence, presumed to reflect different levels of favorability for the leader. The results indicated that the directive leader was more effective than the nondirective leader only when the group-task situation was highly favorable for the leader, thus, partially supporting the contingency model.

In summary, the literature on participation in decision making is rather conclusive. It indicates that there are many desirable consequences of this participatory procedure. While this mode of management and/or decision making is not universally desirable, the literature does indicate that it can be meaningfully employed in a wide variety of situations and as such PDM has been a prevalent theme for many years in the human relations approach to management.

### Chapter III

#### SUMMARY AND HYPOTHESES

Both the organizational control and the social power literature clearly indicate that there are many avenues yet to be explored regarding the phenomenon of control within the formal organizational structure. When it is realized that the Tannenbaum (1968) notions of control have their theoretical underpinnings in the work of French (1956) and French and Raven (1959), control within the formal organization is rightly understood to be a social process subject to all the variables that affect such processes both within organizations and elsewhere and does not exist only within the formal organizational structure.

The literature review of social power indicates that power, the capability to influence, is affected by such variables as the means of reward and punishment employed (Zipf, 1960; and French et al., 1960) and the subordinates' perception of the legitimate right of a person to hold a supervisory position (Raven and French, 1958). This literature also indicates that social power has varying effects on the aspiration setting and striving of subordinates (Zander and Curtis, 1962) and that nonlegitimate and coercive

influence attempts result in an increased discrepancy between public opinion and private behavior (Raven and French, 1958a). Indeed, the literature is quite conclusive indicating that the possession and use of power has varying effects on the influencer as well as the person being influenced.

The control model posited by Tannenbaum (1968) is best described as being new and revolutionary. The model questions the implicit assumption of the mechanistic organizational theorists that there is a finite amount of power in an organization and that when one part of an organization increases its power, it does so at the expense of the other parts. Mechanistic theorists conceptualize power, and therefore the relationship between management and labor, in a zero sum context, while Tannenbaum maintains that the relationship is not necessarily zero sum. Of pivotal importance in this largely untested model is the Tannenbaum theory regarding the results of having control in an organization. Tannenbaum maintains that there is a positive relationship between the amount of control exercised by an individual and the extent to which that individual is controlled by the organization; the more control a person has, the more control the organization has over him.

The issue at hand in the research reported in this monograph centers about the acquisition of social power in an organizational setting. Specifically, it is concerned with examining a method to

increase the power that a supervisor has over his subordinates. While it has been established that all supervisors, by virtue of position, have structural power, it was also reasoned that for the meaningful execution of many supervisory assignments, it is necessary for a supervisor to influence subordinates in the situational aspects of the work environment. The ability to influence in these situational aspects, situational power or incremental influence (Katz and Kahn, 1966), is not provided by the organization and its acquisition rests solely on the shoulders of the supervisor.

Tannenbaum (1968) maintains that one way to increase the total amount of control in an organization is through participant management procedures. The position is best articulated by March and Simon (1958, p. 54):

Where there is participation, alternatives are suggested in a setting that permits the organizational hierarchy to control (at least in part) what is evoked. 'Participative management' can be viewed as a device for permitting management to participate more fully in the making of decisions as well as a means for expanding the influence of lower echelons in the organizations.

This mode of thinking, that is the result of participative procedures, is more than adequately substantiated in the literature (Tannenbaum, 1966; Lawler and Hackman, 1969; Preston and Heintz, 1949; and Coch and French, 1948).

In addressing the central issue in this research, it is a small theoretical step to conclude that if it is possible to increase

the amount of control of subordinates by a participative management procedure, and the literature indicates that it is, it would follow if Tannenbaum is correct, that the organization would, in a like manner, increase its control over its subordinates. If this in fact is true, then participation in decision making as a management procedure would be one way to deal with the problem of the acquisition of supervisory situational power.

It would be difficult to locate an appropriate experimental situation, in an ongoing organization, that would provide for an adequate and pure test of the Tannenbaum theories. As an alternative it was decided that a good test of the model could be achieved by a laboratory simulation. Though organizational research in the laboratory has been criticized (Dalton, 1964) it is felt that, given the constraints of organizational reality, a more than adequate test could be provided by a laboratory simulation procedure.

The operationalization of participation in decision making in the laboratory situation should be a straightforward one so that the subjects are aware of their influence or lack of influence over their environment. If a task group of experimental subjects were told that it is necessary for them to have a supervisor to guide them in accomplishing the task before them and then given an opportunity to choose from among three candidates for the position, then this procedure would be analogous to many participative procedures

employed in ongoing organizations. What should happen in this situation is that the subjects should be more ego involved than if they had no influence over the supervisory selection procedure. They should be more involved because they have some control over the situation and by the same token, according to Tannenbaum, their supervisor should be more able to control them. The control of the supervisor who comes to his position through a participative procedure should be measurably greater than his counterpart who comes to his position through an arbitrary appointment procedure.

Since it has already been established that power can only be measured by the result of an attempt to influence, it is necessary to measure the amount of supervisory situation power, to have the supervisor attempt to influence his subordinates in one of the situational aspects of the work situation. This influence attempt should have direct bearing on the task before the group so as to be as close approximation as possible to supervisory attempts to influence in an ongoing organization. As a result of constraints of the aforementioned nature, the following experimental situation and influence attempt is proposed: Each experimental group is faced with the task of preparing a speech. After the varying supervisory selection processes (participatory or nonparticipatory) have taken place, a previously unknown individual, the supervisor, enters the laboratory, introduces himself and informs the subjects that in this meeting they

are to read a paper on ecology and prepare a rough draft of a speech outline. He goes on to inform them that they will return the following evening and write the final draft of the outline. At the end of the first session the supervisor initiates an influence attempt. He informs the subjects that quality is important and that they should do the best work that they can do. The supervisor attempts to influence the subjects to do two things: 1) He tells the subjects that he has reserved a paper on the improvement of speech style for them and that they should go and examine the paper prior to the second meeting where they will write the final draft, and 2) He tells them that because quality is an important dimension, they should make every effort between the sessions to do a quality speech.

This experimental situation is a viable one in that it isolates and attempts to simulate the supervisor-subordinate relationship often found in work organizations and at the same time it should provide the subjects with a feeling analogous to that of being a small part of a large work organization. This design is a viable one in that it permits a test of the Tannenbaum control model, it permits a test of a possible extension of the French and Raven model of the bases of social power and at the same time allows a test for a possible solution to the problem of a supervisor's acquiring situational power.



Based on the aforementioned rationale, it is concluded that this procedure would yield an internally valid (Campbell and Stanley, 1966) test of the arguments that have been presented. As a result of this two hypotheses have been advanced:

1. Where subordinates have influence over who is named supervisor and receive the man of their choice as supervisor, there will be a higher proportion of subjects examining the speech style paper and making a general effort to do quality work, than when the supervisor is arbitrarily appointed without any consideration for the subordinates' opinions.
2. Where subordinates have influence over who is named supervisor and do not get the supervisor of their choice, there will be a higher proportion of subjects examining the speech style papers and making a general effort to do quality work than when the supervisor is arbitrarily appointed without any consideration for the subordinates' opinions.

A second issue raised in this research deals with the possible effect that the race of a supervisor may have on his ability to control his subordinates. A pragmatic issue raised in light of the recent social changes and the ever increasing pressure to place more minorities in management positions, this issue is of both

theoretical and practical import. In this vein, research (Aronson and Golden, 1962) indicated that Black communicators had less persuasive influence than their White counterparts who made identical arguments. These results may be interpreted in many ways according to the interpreter's religion, politics, and/or political inclination. Interpretation notwithstanding, the possibility that an effect analogous to that demonstrated by Aronson and Golden may exist within the confines of the formal work organization is an issue that needs to be studied. From the point of view of both the organization and the minority supervisors, it is necessary to establish whether or not this phenomenon is a fact so that appropriate measures may be undertaken to deal with the inequality.

The previously described laboratory setting should provide an opportunity to examine the extent to which the Aronson and Golden finding may be generalized. In this situation, two Black and two White supervisors should role play each of the three participation conditions.

Based on the aforementioned rationale, the following hypothesis is advanced:

3. No difference will exist in the proportion of subjects examining the speech style papers and making a general effort to do quality work as a function of the race of the supervisor.

## Chapter IV

### METHOD

#### Participants

Fifty-nine White male introductory psychology students were employed in this research ( $N = 59$ ). Each subject received class credit for his participation. Their assignment to treatment conditions was random and each subject served in only one experimental condition.

Supervisors: Four supervisors were used in this experimental situation; two White and two Black. Each supervisor participated in each of the three treatment conditions.

#### Procedure

While waiting to be admitted to the laboratory, the subject got acquainted with the other two members of his work group. The other two group members, both White males, were confederates of the experimenter.

The group was then brought into the laboratory by an individual who introduced himself as an experimenter aide working with this project (Appendix I). This experimenter told the subjects that they were taking part in an experiment conducted by the psychology department of the university. He said, "The purpose of this project is to examine the relationship between attitudes about ecology and the content of a speech." He then explained that

previous studies have demonstrated that the attitudes of a person heavily influence the content of anything he says or writes. However, there has never been any research to indicate that the attitudes of an individual regarding ecology are related to the content of a speech that he writes. Therefore, this study is designed to examine this kind of relationship.

Because the study ostensibly examined the relationship between attitudes and speech content, the experimenter told the group:

It is about the relationship between attitudes about ecology and the content of a speech; therefore, to get the credit for participating in the project, you don't have to write a Nobel Prize winning outline, but all you need do is write an outline today and return tomorrow and write the final draft of the outline.

In the "participation in decision making" situation the group was then informed, by the experimenter, that they must have a supervisor whose job it would be to guide them in the preparation of their speech. They were told that there were three men working with the project, who were experienced in varying aspects of public speaking and were available at the time to supervise their efforts. Then

the group was presented with the vitas of three individuals whom they had never met (Appendix V).

The background information revealed that each of three individuals were competent to direct preparations for public speaking. Supervisor 1 was described as an experienced public speaker. He, as a high school student, was a member of the school public speaking club and ranked among the best in the club. In his four undergraduate years here at the university, he has participated in the public speakers forum and in numerous public speaking contests.

Supervisor 2 was described as a senior at M.S.U. majoring in Secondary Education with a specialty in speech. Having participated successfully in his high schools' speech club, he has turned his efforts to teaching speech and has done so, in conjunction with his professors, in numerous workshops and seminars around the state.

Supervisor 3 was described as a student, a senior, who has been involved since high school in public speaking. With a major in Journalism, he has, since his freshman year at the university, been employed as a judge for debating and public speaking contests and on a number of occasions has covered speeches both here on campus and at the state capitol, for the university newspaper.

From these three individuals, it was up to the group to come to a unanimous decision regarding the man they wanted to be the group's supervisor. During this decision phase, one of the two

confederate group members always solicited from the subject his choice of who the supervisor was to be. At that point one of the confederate group members agreed with the subject and the other then made some argument against that choice and offered a choice of his own. A discussion followed and the dissenting group member was won over by the superior judgment of the two other work group members.

The group was told that they may or may not get the man they want to be the supervisor. This was so, they were told, because there were other groups in the study who were going through the same process and selecting from the same pool of individuals. The final supervisory selection rests in the hands of the study director. They were told that his selection was dependent on a number of factors which were beyond the experimenter's control; however the study director would make every effort to give the group the man they preferred as their supervisor.

This supervisory selection process set up two experimental conditions: 1) where the group received the supervisor they wanted (PDM 1) and 2) where the group received someone other than the supervisor they chose (PDM 2).

In a third condition the experimenter informed the group that they also have to have a supervisor to guide them in their speech preparation. In this condition, however, the supervisor was appointed by the study director and the experimenter merely informed

the group who their supervisor was to be. The wishes of the group were not considered when determining who the supervisor should be.

In all conditions the experimenter informed the group that the supervisor had complete control over the speech preparations of the group. They were to take their directions from him from that point on.

Fifteen minutes after the group informed the experimenter whom they wanted to be the supervisor or after the supervisory appointment had been made known (condition 3), the supervisor arrived and introduced himself. In the first two conditions the supervisor introduced himself as the man they selected, or someone other than the man they selected. In the third condition, he simply introduced himself as the leader and give some background information on himself. After the introduction and a brief get acquainted period, the supervisor in all conditions began to inform the group what was to be done and how they were to do it.

They were told

your job here is to read a paper on ecology and write an outline for a speech using this paper as a starting point. You may outline any type of a speech that you care to as long as it is about ecology. Tomorrow, you will return and write the final draft of the speech outline and complete a short questionnaire.

It was emphasized here that they would not have to give a speech, but were only to write an outline as though they were going to give a speech.

The supervisor then answered all questions, presented the group with the ecology paper (Appendix III) and gave them approximately thirty minutes to read and write a rough draft of their speech outline. They were told to work individually in this portion of the project.

After completion of the written portion of the exercise, the supervisor had the group members read their outlines to him. He made comments but no criticisms. After all outlines were read he told the group that "\_\_\_\_\_ 's (subject's name) outline seems most reflective of his attitudes and personal beliefs on ecology and that this is the kind of thing that the project director is looking for in the outlines; so tomorrow \_\_\_\_\_ (subject's name) is to return and write the final draft of his speech outline. The other two men return at the same time to complete another part of the research. Each of you, then are told, "is to be at your respective locations at 7:30 p.m. tomorrow."

At this point the supervisor said,

I'd like to caution you about something before you leave today. Quality in speech writing is always an important dimension and should be strived for at all times. I think that you should make a significant effort to put together the best possible speech that you can. You should make every effort to write a quality speech; one that reflects your capabilities and that looks like you really did some work on the project. To facilitate your efforts, I have placed, in room 7 in Olds Hall, a paper on the style and delivery of a speech [Appendix IV]. You should



examine these papers tomorrow between 8 a.m. and 4 p.m. These papers may or may not help you in your quest for a quality paper, however I think that it would be to your advantage to examine these papers and give them serious consideration. At any rate, do whatever is necessary for you to put together a quality speech and I'm sure your speech will be a truly excellent one.

Then the group was given more details regarding the next evening and it was emphasized again that the subject would not have to give a speech; he was reassured that his job was only to write an outline of a speech.

The next evening the subject returned and in the presence of other subjects from the previous day, wrote the final draft of the speech outline. He then completed a brief questionnaire, was thanked for his participation and told that a full explanation of the study and its results would be available in the near future. To receive a copy of the results he was told to contact the Department of Psychology.

### Dependent Measures

There were two dependent measures employed in this study.

- (1) The proportion of subjects in each condition who went to examine the speech style papers to which the supervisor made reference. This dichotomous measure was obtained from the number of subjects

who signed the required form to take the papers out and read them.

(2) The amount of effort exerted by the subject to write a quality paper. This was measured by the subjects' responses to a questionnaire (Appendix II) designed to assess the amount of effort expended on paper preparation between the first session and the second.

## Chapter V

### RESULTS

In assessing the results of this experimental procedure, it was first necessary to establish whether or not the treatment made a significant difference in terms of the subject's perception of his influence in the supervisory selection process. The unequivocal establishment of treatment differences is of pivotal importance to subsequent interpretation of the results.

To gather information relevant to the subject's influence perceptions, an item was included in the questionnaire (Appendix II) which had direct bearing on this issue. The responses to this question were analyzed in a three by two analysis of variance (Table 1). The results indicated that the treatment did make a large and significant difference in the subject's perceived influence over who was to be named the supervisor of his work group ( $F_{2,53} = 24.808$ ;  $p < .0001$ ). The differences were in the expected direction. Subjects in the PDM-1 and PDM-2 conditions did perceive themselves as having significantly more influence over who their supervisor was to be than subjects in the Appointed Condition.

TABLE 1

ANALYSIS OF VARIANCE OF TREATMENT EFFECT SCORES  
THREE LEVELS OF INFLUENCE (A) BY TWO OF RACE (B)

Source	df	SS	MS	F
A	2	23.684	11.842	24.808*
B	1	.380	.380	.7974
A x B	2	.802	.4018	.8417
Error	53	25.296	.4773	

\*p < .0001.

#### The Dependent Measures of Control

Two measures of supervisory control were used. One was a dichotomous measure of the proportion of subjects in each condition who went to examine the speech papers. The second was a continuous measure, the average amount of effort exerted to do quality work. This measure was obtained through the subject's responses to a questionnaire.

Regarding the dichotomous measure, it was found that, of the total sample of fifty-nine subjects, only four subjects went to examine the speech papers. For all practical purposes, this rendered

the behavioral measure totally ineffective for this research. The subjects who did go to examine the speech papers formed no particular pattern. No statement is possible regarding the treatment conditions' effect on the subjects who examined the speech papers.

All subjects completed the questionnaire portion of the study. Therefore, all subsequent analyses of effort, as a measure of control, refer to effort as defined by the questionnaire measure.

The reliability of the questionnaire measure was assessed in an analysis of variance paradigm (Hoyt, 1967). This technique (Table 2) indicated an internal consistency reliability coefficient of .689.

TABLE 2  
RELIABILITY OF QUESTIONNAIRE MEASURE ESTIMATED BY A  
SUBJECT (A) BY ITEM (B) ANALYSIS OF VARIANCE

Source	df	SS	MS	F	r
A	58	52.343	.902	3.216	.689*
B	7	77.822	11.117	39.618	
A x B (Error)	406	113.927	.280		

\*Internal consistency reliability coefficient.

### Supervisor Effects

Any experimental design, where role playing is employed, is enhanced by having more than one individual play the varying roles. To have a really effective demonstration of what the study purports to demonstrate, no differences should exist when two, three, or more individuals play the same role. If only one person plays the roles, the results, regardless of direction or their strength, can be said to be personality specific. That is, it may be said that the results are attributable to the personality of the individual playing the role and not to the role itself.

For the purposes of this demonstration, two Black supervisors and two White supervisors were employed in each of the three treatment conditions. To ensure that no differences existed, in terms of the amount of effort exerted within the two pairs of supervisors (between two Blacks and between two Whites), two analyses of variance (Tables 3 and 3a) were performed. The results indicated that there were no differences between the two Black supervisors ( $F_{1,24} = 2.141$ ;  $p > .05$ ) and no differences between the two White supervisors ( $F_{1,23} = 0.9768$ ;  $p > .05$ ). These findings indicate that the results obtained in the study are due to the roles being played, Black Supervisor and White Supervisor, and not to

the personalities of, or other systematic factors, within the individuals who played the roles.<sup>1</sup>

TABLE 3  
ANALYSIS OF VARIANCE OF AVERAGE EFFORT EXERTED  
THREE LEVELS OF INFLUENCE (A) AND TWO LEVELS  
OF BLACK SUPERVISOR (B)

Source	df	SS	MS	F
A	2	.0080	0.0040	.0307
B	1	.2784	.2784	2.141
A x B	2	.7420	.3710	2.854
Error	24	3.1200	.1300	

TABLE 3a  
ANALYSIS OF VARIANCE OF AVERAGE EFFORT EXERTED  
THREE LEVELS OF INFLUENCE (A) AND TWO LEVELS  
OF WHITE SUPERVISOR (B)

Source	df	SS	MS	F
A	2	.4142	.2071	2.746
B	1	.0737	.0737	.9768
A x B	2	.1692	.0845	1.1208
Error	23	1.7342	.0754	

<sup>1</sup>The test for differences between Black Supervisor and White Supervisor is part of a separate analysis and will be presented later.

### Tests of Hypotheses

Three main hypotheses were tested in this study (1) Where subordinates have influence over who is named supervisor and receive the man of their choice as supervisor, there will be a higher proportion of subjects examining the speech style papers and making a general effort to do quality work, than when the supervisor was arbitrarily appointed without any consideration for the subordinates' opinions. (2) Where subordinates have influence over who is named supervisor and do not get the supervisor of their choice, there will be a higher proportion of subjects examining the speech style papers and making a general effort to do quality work, than when the supervisor was arbitrarily appointed without any consideration for the subordinates' opinions. (3) No differences will exist, in the proportion of subjects examining the speech style papers and making a general effort to do quality work, as a function of the race of the supervisor.

To test these hypotheses a three by two analysis of variance (Table 4) was performed on the amount of effort exerted. Regarding hypotheses one and two, it was found that no significant differences existed between PDM-1 and Appointed and between PDM-2 and Appointed ( $F_{2,53} = .6672$ ;  $P > .05$ ). That is, in terms of the amount of effort exerted, there were no differences associated with the three treatment conditions.



Regarding hypothesis three, it was found that no differences existed, in the amount of effort exerted, when a Black was supervisor as opposed to when a White was supervisor ( $F_{1,53} = 1.1600$ ;  $P > .05$ ).

TABLE 4  
ANALYSIS OF VARIANCE OF AVERAGE EFFORT EXERTED  
BY THREE LEVELS OF INFLUENCE (A) AND  
TWO LEVELS OF RACE (B)

Source	df	SS	MS	F
A	2	.1540	.0770	.6672
B	1	.0021	.0021	.0186
A x B	2	.2678	.1339	1.1600
Error	53	6.1162	.1154	

The lack of any differences in effort as a function of the treatment conditions is graphically demonstrated in Table 5. This table indicates the average amount of effort exerted as a function of treatment conditions. Note that between cell differences are virtually non-existent.

TABLE 5

AVERAGE EFFORT EXERTED AS A FUNCTION OF THE  
THREE LEVELS OF INFLUENCES AND THE  
TWO LEVELS OF RACE

		Race of Supervisor	
		Black	White
Amount of Influence	PDM-1	1.58	1.47
	PDM-2	1.57	1.46
	Appointed	1.54	1.72

In summary, the data indicate that differential perceptions of influence were established by the treatment conditions and there were no differences within supervisor groups, indicating that the obtained results of the study were a function of the roles being played and not idiosyncratic to the individuals playing the roles. Given these two data and the acceptance of the null hypotheses regarding the amount of effort exerted, it appears that the theory was not supported in this experimental situation. A discussion of sources of invalidity in the study and of the conditions necessary in laboratory for the approximation of organizational reality, will be undertaken in the next chapter.

## Chapter VI

### DISCUSSION

In the face of experimental results that do not support a theory, it is necessary, before reconsidering the theory, to examine each phase of the experimental procedure in search of possible flaws that may have produced the unanticipated results. Such results are a fact in the present study and therefore an examination of the experimental procedure is in order. The critique of the research procedure will comprise the first section of this discussion. The remaining three sections will discuss, in order, the meaning of the results, organizational conditions necessary for meaningful PDM and implications for future research.

#### Research Procedure: A Critique

In retrospect a question that is of prime importance is how much of a "supervisor" was the supervisor? That is, how closely does the role of supervisor in this study approximate that of supervisor in an organization? As stated previously, a supervisor by virtue of holding his position, has at his disposal the ability to mediate

rewards and punishments for his subordinates (Weber, 1966). He has a relationship with his subordinates that has a history and promises to continue for some time into the future.

In the present study, these two aspects of the relationship between superior and subordinate are conspicuously absent. The supervisor has no ability to make the working life of his subordinates either pleasant or unpleasant; he has no ability to recognize an individual who has performed admirably nor the ability to punish an individual who has performed inadequately. In short, he has been stripped of his organizational reward power and coercive power which have been, in a traditional organization, provided him to facilitate his achieving the required goals. Without these sanctions at his disposal, how much control can the supervisor have?

The lack of power on the part of the supervisor could explain why the subjects exerted only a marginal effort to do quality work. An examination of Table 5 indicates, on a five-point scale, that on the average, regardless of experimental condition, subjects exerted between no effort (a score of 1) and little effort (a score of 2) to do quality work.

The absence of the supervisory ability to mediate positive and negative sanctions for the subordinates is underscored by the fact that the subordinate, after the first meeting, never has to see his supervisor again. In this condition, any situational power

the supervisor may have as a result of having a continuing relationship with his subordinates is eliminated. It is quite possible that if the subject knew that, after the first meeting, they would have to see their group supervisor again and possibly be asked whether or not they did what he suggested, they may have been more influenced, for whatever reason, to put forth a serious effort.

Inherent in the continuous measure of effort exerted is another possible source of error in the study. Because the effort scale has only face validity and has not been validated against an objective criterion, it is possible that the scale does not measure, in fact, what, in theory, it is intended to measure. The scale (Appendix II) consisted of questions such as "which statement best describes your efforts regarding the content of your speech since the group meeting?" followed by a number of statements which describe activities which might be engaged in when an individual is making a serious effort to do quality work. Indeed, since no attempt was made prior to employing the instrument, to gather objective validity data, questions may be raised regarding whether or not the questionnaire measure did what it was intended to do.

While it must be agreed that the previous argument regarding validity is, indeed, a salient one, it is the opinion of this writer that it is not sufficient to explain the obtained results. A more cogent argument, which is closely aligned with the discussion of

validity, is the position that the dependent measure, regardless of how valid, may not have been sensitive enough to small differences in the amount of effort exerted by the subjects. For the most part, statement one on the questionnaire (indicating no effort) was a statement regarding whether or not the respondent gave any thought to the speech outline. Statement two (ostensibly indicating slightly greater effort) was a statement regarding whether or not the subject actively engaged in some behavior relevant to the speech. It is quite probable that there are finer discriminations that should be made between statement one, thinking, and statement two, engaging in behavior. The variations in the amount of thinking, which may be excellent indications of the amount of effort exerted, go totally unexamined. There are probably many activity levels between doing absolutely nothing, or giving some thought to (statement 1) and actively engaging in some behavior to do high quality work (statement 2). The many activity levels between thinking on the one hand and actually engaging in behavior, on the other, were not tapped by the questionnaire measure and as such the difference between responding in the affirmative to statement one and in the affirmative to statement two, is, in terms of effort exerted, tremendous. What, in effect, has happened, is that statement two, an amount of behavior engaged in, represents a certain threshold of behavior noticeable, or measured, by the scale and the many types of behavior, or those

of lesser amounts than that in statement two, go unnoticed or unmeasured. The difference in responding in the affirmative to statement two (actively engaging in behavior) and statement three (actively engaging in more behavior) is no doubt smaller than between statements one and two. This position leads to two conclusions regarding the dependent measure: 1) It is, indeed, not sensitive enough to measure all meaningful variations in effort exerted, and 2) The difference between responding in the affirmative to any point on the scale and any other is not equal between all points on the scale. It appears that the assumptions of sensitivity and of the interval nature of the scale was not warranted.

A note regarding the apparent frame of mind of the subjects is also in order here. It is quite possible that the subjects, who volunteered because of class credit inducements and may have been willing to do only a minimal amount of work, may have been given a license to do nothing and receive the desired credits. In the initial phase of the study, the experimenter (Appendix I) said to the subjects:

You should realize two things about this study:  
1) it is about the relationship between attitudes about ecology and the content of a speech.  
Therefore, to get the six credits for participating you don't have to write a Nobel Prize winning outline, but all you have to do is to write an outline today and return tomorrow to write the final draft of the outline.

Because the dependent variable involved the subject's doing something, it is probable that the research procedure may have mitigated against obtaining results that would support the Tannenbaum (1968) thesis.

### Interpretation of Results

In the face of the aforementioned procedural limitations, the results of the study are more easily explained. While it was established that the treatment (Table 1) was successful, the results (Table 4) indicated that there was no significant difference in the amount of effort exerted as a function of the three treatment conditions ( $F_{2,53} = .6672$ ;  $p > .05$ ), or as a function of the race of the supervisor ( $F_{1,53} = 1.160$ ;  $p > .05$ ). Because of the previously discussed lack of resources at the disposal of the supervisor, it must be concluded that these results reflect the general lack of supervisory control. They cannot be said to reflect, adequately, a test of the theory that they were originally intended to evaluate. Support for this interpretation is found when we consider that the subjects' responses were all skewed to the low-effort end of the continuum (Table 5). An examination of the cell means presented in this table indicate that all supervisors had, at best, very little control over their subordinates. Because this situation exists here,



it lends to the artificial nature of the experimental situation. Indeed, it is difficult to believe that supervisors in an organization have so little control over their subordinates.

### Two Post Hoc Analyses

It is interesting to note that when a separate analysis is performed on the elements comprising the dependent measure, a marginally significant effect is found for the "amount of effort exerted" as a function of the treatment conditions. The three by two multivariate analysis of variance with eight dependent measures (each of the eight questions in the dependent measure), indicated that the treatment conditions did have an effect on the "amount of effort exerted" as measured by the eight separate questions ( $F_{16,92} = 1.6273$ ;  $p < .0771$ ). The general effect (Appendix VI) seems to be in a direction opposite to that which the Tannenbaum model would predict. Indeed, it appears that in the appointed condition, more effort was exerted than in the participation in decision making conditions. While this effect is not consistent for each of the eight measures, it does appear in the three measures that exhibit the most variation. Though the results of this post hoc analysis are weak and constitute statistically inadmissible evidence, they do tend to give credence to the aforementioned criticisms of the dependent measure.

In a separate analysis the second drafts of the speech outlines were evaluated on three dimensions of quality. The first pertained to exactly what the subject did with the outline; did he merely outline the paper he read during the first meeting, did the outline consist primarily of the subject's opinions, was the outline a combination of the two? Generally the subjects were evaluated on the apparent amount of effort that went into writing the outline. The second dimension was a subjective evaluation of the overall quality of the outline. Here the outlines were rated as being of poor, marginal, adequate, good, or excellent quality. The third dimension was an objective one. The quality of effort exerted was evaluated by counting the number of words in the outline.

The three evaluations were analyzed in a three by two multivariate analysis of variance design. The results (Appendix VI) indicated that no differences exist as a function of the treatment conditions ( $F_{6,88} = .8431$ ;  $p > .05$ ) or as a function of the race of the supervisor ( $F_{3,44} = .7475$ ;  $p > .05$ ).

Quality of output is perhaps the most sensitive measure possible of the amount of effort exerted to do quality work. As such, the failure to find differences as a function of treatment conditions, or race of supervisor, which is consistent with the findings when the questionnaire measure is employed, lends credence

to the contention that the supervisors were not sufficiently powerful to influence their subordinates in a significant manner.

#### PDM: The Necessary Preconditioning

While Tannenbaum does not make it clear under what circumstances increased control on the part of subordinates results in increased power on the part of the organization, over the subordinates, a statement in this regard is in order. Considering the ethos of the times in which the model was formulated (the model having its roots in the Human Relations School of Management), it would seem that two prime organizational ingredients are necessary for the hypothesized relationship between having power and being controlled to manifest itself. These are: 1) An atmosphere of trust between management and labor, and 2) Some amount of ego involvement with the organization on the part of those individuals who are concerned. A brief discussion of each of these will be undertaken.

In the literature of the human relations approach to management it is implicit (Herzberg, 1966), and explicit (Argyris, 1964), that an essential element in the development of a meaningful relationship between management and labor, or for that matter between management and management and/or labor and labor, is trust. Whether

in organizational development one is attempting to institute the linking-pin notions of Likert (1961) or the Scanlon Plan notions described by Lesieur (1968), the trust relationship between the individuals involved must be addressed and established. Argyris (1964, p. 31) speaks to this issue.

The degree of trust and respect between management and employees are also very important factors. As we shall see, when the climate of trust is low, the employees may gain part of their success by aspiring to break various management rules and "get away with it." Under conditions of low trust (and high frustration) the employee may express his agitation by setting very low or very unrealistically high levels of aspiration. In either case, the goals will probably never be achieved.

Argyris goes on to state,

however, under a climate of trust the individuals may increase their opportunities for psychological success. With trust, the management may tend to feel less of a need to develop tight control mechanisms, thereby creating greater opportunity for psychological success. However, also under a climate of mutual trust, the employees may be more willing to see the legitimate needs of the organization (p. 32).

Similar statements regarding the importance of the trust relationship have been made by other theorists (Campbell et al., 1970; Marrow et al., 1967). Generally, they conclude that the trust relationship is the cornerstone on which any form of human relations management is built and without such a relationship efforts to make significant changes in an organization would be fruitless.

Ego involvement on the part of all concerned is another point stressed by the human relations school of management. Lesieur (1968, p. 52), in describing worker participation on production problems, speaks to this issue.

The ideas on production methods and the problems of the business as seen by workers, by foremen, and by top management are laid before members of the organization. The constructive efforts, mental as well as physical, of everyone are solicited. Each individual then, has the opportunity and feels the obligation to work for the best interests of the group. This is what "participation" means--not only strong criticism of many established practices, but positive and constructive suggestions for improvement.

Let there be no mistake at this point. Though these crucial aspects of PDM have their roots in the Human Relations approach to management, they represent an expansion of the Human Relations model and are best understood as being representative of the Human Resources model of PDM. The difference between these two models is a qualitative one. Ritchie and Miles (1970, p. 348) make this difference clear:

Managers who hold the Human Relations theory of PDM believe simply in involvement for the sake of involvement, arguing that as long as subordinates feel they are participating and are being consulted, their ego needs will be satisfied and they will be more cooperative. The Human Relations theory of PDM thus stresses only the amount of involvement and implies that participation in routine organizational matters or limited consultation on important issues is sufficient to produce the desired results--an increase in satisfaction and thus in cooperation. On the other hand, the

Human Resources theory of PDM is primarily concerned with the meaningful utilization of subordinates' capabilities and views satisfaction as a by-product of their participation in important organizational decisions.

This need for quality participation is again substantiated by Pelz (1958). In a study of some factors in group decisions the author concludes that mere discussion, or participation, is not sufficient to increase the amount of positive action on the part of experimental subjects; what is necessary is a combination of discussion and meaningful decision making, or quality participation.

Though the aforementioned aspects of the work situation are more implicit than explicit in the Tannenbaum writings they are, nonetheless, crucial to the success of the model. Anyone who would consider testing the Tannenbaum thesis, in an experimental or non-experimental organization, should realize the salience of these preconditions and act in a manner to ensure that these conditions are part of his, or her research. In this same vein, anyone who would seek to implement these notions of control in an ongoing system for unilateral gains, should assess their motives for doing so, and the overwhelming likelihood that these motives will manifest themselves, in full light of the necessary precondition for meaningful and effective PDM.

### Conclusions and Implications for Future Research

Perhaps the most salient conclusion that can be arrived at is in regard to the apparent need for coercive and reward power on the part of the supervisor. While Tannenbaum (1968) and Katz and Kahn (1966) discuss, at length, the need for supervisors to have control based on legitimate, referent, or expert powers, it appears that one should not lose sight of the central importance of supervisory coercive and reward power; that is, one should never forget that the supervisor role carries with it the ability to make life pleasant or unpleasant for subordinates and this power is the first law of organizational life. In many situations coercive and reward powers are enough to influence subordinates to accomplish at least a marginal amount of work. However, as these results may be said to indicate, referent power in and of itself may not be sufficient to influence subordinates adequately. The subjects did virtually nothing. It is concluded, therefore, that Tannenbaum, Katz and Kahn, and other theorists should, in their discussions of control and incremental influence, consider that the foundations of supervisory control may be the coercive and reward capability of the supervisor and that reciprocal control and incremental influence represents supplementary power and should not be considered as a substitute for the primary bases of power, except under special conditions.

Basically, many of the original questions of this research still remain. How does an organization go about aiding its supervisors in gaining the type of power that is needed to bring many jobs to a successful conclusion? Do supervisors possess differing amounts of power over their subordinates as a function of the supervisor's race, or sex, or his national origin? These questions were crucial at the outset, have been inadequately addressed here, and are no less crucial at this point.

A relatively small but significant procedural change should provide for an adequate test of the original propositions of this research. As was mentioned previously, subjects took part in the research to receive extra class credit and were told that all they needed do for their credit was to write the rough draft of the speech outline and return the following evening to write the final draft of the outline. If, instead of giving the subjects a fixed amount of credit for a minimum amount of work, the subjects were told that they would receive a variable amount of credit and the amount they would receive would be determined in part by the supervisor, the supervisor would then be invested with a measure of power traditionally provided in ongoing organizations. In this situation the subjects would never be given any reason to believe that the amount of credit received was a function of the amount of effort exerted. The reward contingencies should definitely remain unclear to the subjects.



This situation would more closely approximate organizational reality and as such correct a source of internal invalidity and allow a better test of the research questions at hand.

It seems clear that in future research attempts should be made to explore the effects of the human relations approaches to management on the ability of a supervisor to control his subordinates. This issue of influence is, indeed, of both theoretical and of obvious practical importance.

Research to date has not dealt adequately with the extent to which an organization can control the behavior of its members at varying levels. The control exerted by a supervisor over his production line employees, where compliance or failure to comply is readily observable, is of little theoretical interest. The exertion of power in this case is of such minor interest because it is axiomatic that the failure on the part of the subordinate to yield to the legitimate will of his supervisor will lead to reprimand or dismissal. On the other hand when we are concerned with situations where failure to comply with the directives of the superior is not readily observable, as in the situation of a manager or professional receiving a directive from his superior, the ability of that superior to control the behavior of the subordinate is quite another matter. It is possible that among managers or professionals the supervisor has very little control. Because today more and more jobs are of the

technical, managerial, or professional type, the matter of controlling the individuals in these jobs is increasing in importance and future research should reflect this trend. Katz and Kahn (1966) employing the concept of incremental influence, which is based on French and Raven (1959) concept of referent power, represents one attempt to move in this direction.

The implications of this mode of research are far reaching. Today, many changes in social policy are being implemented through large governmental bureaucracies. Within these bureaucracies there is ample opportunity for individuals whose attitudes may be counter to the policies being implemented to selectively implement or differentially interpret the policy with no repercussions to themselves.

Cyert and MacCrimmon (1968) speak to this issue:

Leadership may be directed toward accomplishment of organizational goals or toward the fulfillment of the participants' own needs. The discretionary component of the role of a participant may be used to further his own needs at the expense of the goals of the organization, or perhaps more generally, without any regard for the goals of the organization. The extent of such behavior depends not only on the discretionary component, but also on the resources available to the particular role occupant and on the generally constraints imposed by the organization on a participant in any role.

It should be clear, at this point, that, if social policy is to be carried out through large bureaucratic organizations, effective modes

of ensuring that each individual at each level is performing in accordance with policy must be established.

The supervisory selection process and its effects on the selectee's control capability over his subordinates, is another area of research that demands further attention. Would arbitrary, as opposed to participatory, supervisory selection procedures have the same result among professional staffs as among manual labor personnel? In spite of the general trend toward participation in decision making for most aspects of organizations, it is likely that professional staffs would expect some form of meaningful participation in selecting their supervisors. This may not be the case with manual labor personnel. The violation of expectations may have deleterious effects. Scontrino (1971) studied the effects of fulfilling and violating group members' expectations about leadership style. His results indicated that failure to fulfill expectations that participation will be used, leads to less positive attitudes than if the employees had expected that participation would not be used. If, in fact, professional staffs do expect participation, any procedures not involving them in the selection decision, would result in very negative attitudes on the staff's part.

Closely aligned with this mode of thinking is the largely untested Tannenbaum concept of reciprocal control. This notion implies that a supervisor has control over his subordinates and at the same

time the subordinates have control over their supervisor. Documentation of this phenomenon has only been found in nonexperimental field studies of control (e.g. Bachman et al., 1968). As a result this reciprocal control has never been operationalized and proven, experimentally, to exist. The operationalization of reciprocal control in an experimental situation would be a relatively simple task. All that need be created is a situation where a subject, playing a supervisory role, attempts to influence another subject, playing a subordinate role, to perform in a certain manner; at some later point in the situation the subordinate subject could attempt to influence the superior subject to behave in some prescribed manner. If Tannenbaum is correct there should be a positive relationship between the amount of control of a supervisor over his subordinates and the amount of control of subordinates over their supervisor. Because reciprocal control is so easy and interesting to study, it is difficult to see how future research could ignore the phenomenon.

Perhaps more than anything else, the direction of future research will be in the study of the interaction, in terms of amount of supervisory influence, between participation in decision making and a host of organizational variables (e.g. the nature of the people involved in the work situation). Classically, PDM is talked about as the solution, or mode of operation; it is only recently that researchers are coming to recognize that everybody does not want the

responsibility that comes with meaningful participation. Vroom (1968, p. 239) states:

It would be naive to think that group decision making is always more "effective" than autocratic decision making, or vice versa; the relative effectiveness of these two extreme methods depends both on the weights attached to quality, acceptance, and time variables and on differences in amounts of these outcomes resulting from these methods, neither of which is invariant from one situation to another. The critics and proponents of participative management would do well to direct their efforts toward identifying the properties of situations in which different decision-making approaches are effective rather than toward wholesale condemnation or deification of one approach.

It is in these directions that I see future research moving.

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**APPENDIX I**  
**SUPERVISOR AND EXPERIMENTER ROLES**

APPENDIX I  
SUPERVISOR AND EXPERIMENTER ROLES

SUPERVISOR

**Entrance:**

PDM ONE (subjects have influence and get the supervisor of  
their choice)

Upon entering the room the supervisor greets the group and informs them that his name is \_\_\_\_\_ and that he is to be their supervisor for the following activities. He says "he is happy that the Project Director was able to match their desires with the demands of the project." At this time, he repeats his qualifications relating to the particular task at hand.

PDM TWO (subjects have influence but don't get the supervisor  
of their choice)

Upon entering the room the supervisor greets the group and informs them that his name is \_\_\_\_\_ and that he is to be their supervisor for the following activities. He says "it is unfortunate that the Project Director was unable to match their desires with the demands of the project but that he is a capable supervisor and hopes that we will

be able to affect a good working relationship." At this time, he repeats his qualifications relating to the task at hand.

APPOINTED (subjects have absolutely no influence regarding who their supervisor is to be)

Upon entering the room, the supervisor greets the subjects and informs them that he is to be their supervisor for the following activities. He then gives his name and qualifications and begins to talk about the nature of the project at hand.

AFTER THE INITIAL STATEMENT, THE PROCEDURE IS EXACTLY THE SAME FOR ALL CONDITIONS.

#### THE TEXT

He then tells the subjects that "your job here is to read a paper on ecology and write an outline for a speech using this paper as a starting point. You may summarize the paper, criticize it, or write a speech based on your ideas that the paper evokes. You may outline any type of a speech that you care to as long as it is about ecology. Tomorrow, you will return and write the final draft of the speech outline and complete a short questionnaire." At that point the supervisor pauses to answer questions that may have come up regarding their activities both today and tomorrow.

He then gives the group about thirty minutes to read and write a rough draft of their speech outline.

After completion of the writing portion of the exercise, he then has each subject read their outlines to him and he makes comments, but no criticisms. After each paper is read he tells the group that " \_\_\_\_\_(name) outline seems most reflective of his attitudes and personal beliefs on ecology and that this is the kind of thing that the project director is looking for in the outlines. So tomorrow \_\_\_\_\_(name) is to go to 304c Wells Hall where he will write the final draft of his speech outline and you other men return to Baker Hall then to complete another part of the research. Each of you are to be at your respective locations at 7:30 p.m. tomorrow."

At this point the supervisor says: "I'd like to caution you about something before you leave today. Quality in speech writing is always an important dimension and should be strived for at all times. I think that you should make a significant effort to put together the best possible speech that you can. You should make every effort to write a quality speech; one that reflects your capabilities and that looks like you really did some work on the project. To facilitate your efforts, I have placed in room 7 in Olds Hall, a paper on the style and delivery of a speech. You should examine these papers tomorrow between 8 a.m. and 4 p.m. These papers may or may not help you in your quest for a quality paper; however, I think



that it would be to your advantage to examine these papers and give them serious consideration. At any rate, do whatever is necessary for you to put together a quality speech and I'm sure your speech will be a truly excellent one."

He then answers questions and tells the group that they may leave now.

#### EXPERIMENTER

The experimenter enters the room and introduces himself to the three subjects as an aide whose job it is to inform the subjects as to what is happening in the project and to help them get oriented.

He says, "The purpose of this project is to examine the relationship between attitudes about ecology and the content of a speech." He then says, "previous studies have demonstrated that the attitudes of a person heavily influence the content of anything he says or writes. However, there has never been any research to indicate that the attitudes of an individual regarding ecology is related to the content of a speech that he writes. Therefore, this study is designed to examine this kind of relationship."

He tells the group then: "Your job today will be merely to read a paper about ecology and using the paper as a reference point,

you are to write out an outline of a speech that you would give about ecology. Tomorrow you will have to return and simply write out the final draft of the outline."

He then says, "you should realize two things about this study:

1) It is about the relationship between attitudes about ecology and the content of a speech; therefore, to get the credits for participating in the project, you don't have to write a Nobel Prize winning outline, but all you need do is write an outline today and return tomorrow and write the final draft of the outline. What the research is about is content and not the quality of your writing ability. 2) Secondly, you should keep in mind the fact that you will not actually have to deliver the speech at anytime; the total extent of your job is to act as though you were to give the speech and write an outline accordingly.

PDM (choice of supervisor)

The experimenter then says, "To guide you in the preparations of your speech outline, it is necessary to have a supervisor. We don't want to assign you arbitrarily, a person to be your supervisor. What we would like to do is to match your desires in terms of who the supervisor is to be, with the requirements of this research project. What I want you to do now is choose between these individuals (giving them the vitas) the person you prefer to be the supervisor. This, of course, is no guarantee that you will get the person that you want.

The Project Director is attempting to come as close as possible to matching your desires with the demands imposed by the research situation." Also the subjects are told at this point, "when making your decision I want you to justify why you chose the person that you did. The people are somewhat similar but there are differences. Don't just pick one of the people at random, but choose based on some knowledge or a personal preference."

He then says, "you people come to a consensus about the person you want and I'll return in about five minutes for your decision."

He returns in a few minutes, asks for the decision of the group, asks if everybody understands the exact nature of their task and repeats it if necessary. He then says, "I'm going to give your choice to the Project Director and he'll make the final decision regarding the supervisor. The supervisor should be here shortly."

APPOINTED CONDITION (subjects have no choice at all)

The experimenter says, "To guide you in the preparation of the speech outline we have appointed a supervisor for your group. He is a person who has had a good deal of experience in the area of speech and he will fill you in on more details about the study." He asks if everybody understands the exact nature of the study, repeats its purpose if necessary and then tells the group that their supervisor will be here shortly. He then leaves the room.

APPENDIX II  
QUESTIONNAIRE

APPENDIX II  
QUESTIONNAIRE

General Information

Name \_\_\_\_\_ Student No. \_\_\_\_\_

1. Race: 1 Caucasian \_\_\_\_\_  
2 Black \_\_\_\_\_  
3 Oriental \_\_\_\_\_  
4 Other \_\_\_\_\_
2. Age: 1 17-18 \_\_\_\_\_  
2 19-20 \_\_\_\_\_  
3 21-22 \_\_\_\_\_  
4 23-25 \_\_\_\_\_  
5 25 or older \_\_\_\_\_
3. Marital Status: 1 Single \_\_\_\_\_  
2 Married \_\_\_\_\_  
3 Divorced or Separated \_\_\_\_\_  
4 Widowed \_\_\_\_\_
4. Your overall G.P.A. is: 1 2.49 or below \_\_\_\_\_  
2 2.50-2.99 \_\_\_\_\_  
3 3.00-3.49 \_\_\_\_\_  
4 3.50-3.74 \_\_\_\_\_  
5 3.75-4.00 \_\_\_\_\_
5. What year in school are you? 1 Freshman \_\_\_\_\_  
2 Sophomore \_\_\_\_\_  
3 Junior \_\_\_\_\_  
4 Senior \_\_\_\_\_
6. On most political issues, I perceive myself as:  
1 Left \_\_\_\_\_  
2 Liberal \_\_\_\_\_  
3 Moderate \_\_\_\_\_  
4 Conservative \_\_\_\_\_  
5 Right \_\_\_\_\_

7. Regarding the number of children in your family (family meaning, your father, mother, sisters and/or brothers), which are you:
- 1 The only child\_\_\_\_\_
  - 2 The oldest (first born)\_\_\_\_\_
  - 3 The middle child (not the oldest, but not the youngest)\_\_\_\_\_
  - 4 The youngest child\_\_\_\_\_
8. What kind of a writer are you?
1. A poor writer\_\_\_\_\_
  2. A marginal writer\_\_\_\_\_
  3. A competent writer\_\_\_\_\_
  4. A good writer\_\_\_\_\_
  5. An excellent writer\_\_\_\_\_
9. How much influence did you have over the decision as to who the supervisor of your group was to be.
1. No influence at all and final decision was made by the research director of the project.\_\_\_\_\_
  2. Some influence but the final decision was made by the research director of the project.\_\_\_\_\_
  3. Considerable influence but the final decision was made by the research director of the project.\_\_\_\_\_

The following are questions and statements about your preparations for writing the final draft of the speech outline. Simple circle the number next to the statement which best describes your activities.

10. Since the group meeting, how many books, periodicals, etc. have you examined relating to the content of your speech?
- 1 I examined no additional materials.
  - 2 I examined only two or three additional sources.
  - 3 I examined four to five additional sources.
  - 4 I examined six or seven additional sources.
  - 5 I examined more than eight additional sources.

11. Which statement best describes your efforts regarding the content of your speech since the group meeting?
- 1 I exerted no more effort than was absolutely required for the completion of this project.
  - 2 I solicited advice from friends (those readily accessible) regarding the content of my speech.
  - 3 I exerted a special effort to solicit the advice of friends (those not readily accessible) who are knowledgeable in the content area of my speech.
  - 4 I solicited the advice of my instructors (those with whom I have a class) regarding the content of my speech.
  - 5 I exerted a special effort to solicit the advice of particular instructors (instructors other than those with whom I have a class) who are knowledgeable in the content area of my speech.
  - 6 I exerted a special effort to solicit the advice of friends and instructors who are knowledgeable in the content area of my speech.
12. Since the group meeting how many books, periodicals, etc. have you examined relating to the style of your speech?
- 1 I examined no additional materials.
  - 2 I examined only two or three additional sources.
  - 3 I examined four to five additional sources.
  - 4 I examined six to seven additional sources.
  - 5 I examined more than eight sources.
13. Which statement best describes your efforts regarding the style of your speech since the group meeting?
- 1 I exerted no more effort than was absolutely required for the completion of this project.
  - 2 I solicited advice from friends (those readily accessible) regarding the style of my speech.
  - 3 I exerted a special effort to solicit the advice of friends (those not readily accessible) who are knowledgeable in the style aspects of my speech.
  - 4 I solicited the advice of my instructors (those with whom I have a class) regarding the style of my speech.
  - 5 I exerted a special effort to solicit the advice of particular instructors (instructors other than those with whom I have a class) who are knowledgeable in the style aspects of speech.
  - 6 I exerted a special effort to solicit the advice of friends and instructors who are knowledgeable in the style aspects of speech.

14. How much time did you spend thinking, beyond that during the group meeting, about what you would write for a speech?
- 1 I spent no time at all.
  - 2 I spent little time thinking about it.
  - 3 I spent considerable time thinking about it.
  - 4 I spent a lot of time thinking about it.
  - 5 I spent a great deal of time thinking about the speech.
15. How much effort did you spend rewriting the speech in preparation for the final write up.
- 1 I did absolutely no rewriting of the outline beyond the draft prepared at the group meeting.
  - 2 I did some but not very much rewriting beyond the draft prepared at the group meeting.
  - 3 I did considerable rewriting beyond the draft prepared at the group meeting.
  - 4 I did a lot of rewriting beyond the draft prepared at the group meeting.
  - 5 I did a great deal of rewriting beyond the draft prepared at the group meeting.
16. How would you feel if the quality of the speeches were assessed and yours was determined to be of poor quality?
- 1 I would be totally unaffected.
  - 2 I would feel somewhat badly.
  - 3 I would feel very badly.
17. Which statement best describes your feelings about returning today and writing the final draft of the speech?
- 1 It really didn't matter whether I returned or not.
  - 2 I was concerned about my performance, however, I was very calm.
  - 3 I was somewhat anxious about my performance.
  - 4 I was very anxious about my performance.
18. During the group meeting the leader of your group told you that there were some speech style papers and said that he thought it to be a good idea if you examined the papers. Did you examine the papers?
- 1 NO
  - 2 YES



This portion of the questionnaire is concerned with your feelings about the supervisor of your group. Again, respond by circling the number next to the statement which best describes your feelings.

19. What kind of a supervisor directed your group?

- 1 He was totally incompetent.
- 2 He was somewhat incompetent.
- 3 He was competent.
- 4 He was very competent.
- 5 He was extremely competent and knowledgeable.

20. What did you think of your supervisor as a person?

- 1 He was the kind of person that I'd definitely not like to encounter again.
- 2 He was the kind of person that I'd rather not encounter again.
- 3 It really wouldn't matter if I encountered him again or not.
- 4 He was the kind of person I would rather like to encounter again.
- 5 He was the kind of person I'd definitely like to encounter again.

\*\*\*To answer the following questions imagine that you have worked with your group supervisor over a prolonged period of time and respond based on your limited impressions of him.

21. When a question arises about how something should be done, my supervisor is most apt to:

- 1 Insist that, rules or no rules, everything be done in the supervisor's way.
- 2 Insist everything be done according to organization rules and regulations.
- 3 Insist that the individuals, in the group, must adjust to the work in his own way.
- 4 Insist that the work groups come to a common agreement about the work.

22. When my supervisor finds someone disagreeing with him, he is most likely to:

- 1 Refer to his own experience and know-how to back up his opinions and act accordingly.
- 2 Get agreement on his ideas by influencing certain individuals.
- 3 He would do both A and B.
- 4 Go along with the decision of the work group in deciding the issue.
- 5 Reconcile the opinions of the work group and the established policies of the organization in deciding what course of action would be best.

23. My supervisor is most likely to give out new orders and information by:

- 1 Sending or posting a written notice for those subordinates who are directly affected.
- 2 Sending or posting a written notice for every subordinate in the work group.
- 3 Telling each employee about them if he feels it is necessary.
- 4 Discussing them with the group and getting the group's comments and questions.

24. My supervisor tries to get the work accomplished by:

- 1 Carefully instructing and constantly supervising the workers regarding the exact procedure to do the job.
- 2 Carefully instructing and providing some supervision regarding the exact procedure to do the job.
- 3 Carefully instructing and providing minimal supervision regarding the exact procedure to do the job.
- 4 Carefully instructing and allowing a great deal of interaction between himself and subordinates regarding the procedure to do the job.

25. To accomplish his job, my supervisor seems to depend most on:

- 1 His ability to punish a subordinate if he performs inadequately.
- 2 His ability to reward a subordinate if he does the proper thing.
- 3 His ability to influence subordinates to do the job simply because he is the supervisor and has the right to prescribe behavior for those individuals who are his subordinates.
- 4 His general ability (because people like him) to influence people to do what has to be done.
- 5 His technical knowledge of the area in which the group is working.

26. In general, what effect does your supervisor have on his subordinates:

- 1 He seems to create an "I don't care" attitude.
- 2 He seems to create an atmosphere where his subordinates have only marginal interest in whether or not the task is accomplished.
- 3 He seems to create an atmosphere where his subordinates are somewhat interested in whether or not the task is accomplished.
- 4 He seems to create an atmosphere where his subordinates are very interested in whether or not the task is accomplished.

### APPENDIX III

### ECOLOGY PAPER

A Future That Makes Ecological Sense

By

Garrett De Bell

For the last few years I've noticed two trends in literature about the future. Journals like Audubon Magazine, Sierra Club Bulletin, and Cry California are generally concerned about imminent ecological disaster--the death of canyons and valleys, the end of whales, big cats, eagles, falcons, pelicans, and even man. The magazines popularizing science, such as Popular Science and Popular Mechanics, speak of the technological Utopia of the future--a television screen attached to every telephone, a helicopter on every rooftop, and sleek supersonic transports for the fortunate few within them who cannot hear their sonic boom. The two kinds of journal seem oblivious of each other and mutually exclusive. Yet there is a connection: The more we strive to reach the popular science future, the more likely we are to achieve the ecological disaster.

The production, use and disposal of technologically sophisticated gadgets is a big part of our ecological problem. The solution to the problem is not found in a simple banning of billboards and non-returnable bottles, nor in the promotion of anti-litter campaigns and highway beautification. Some of our best polluters encourage such useful activities with advertising that professes deep concern about environment. This kind of effort is at worst cynical and at best misguided. Dealing with our ecological crises in population, water and air pollution, pesticides, transportation and the quality of life

requires more than mere palliatives. It requires the restructuring of many aspects of society.

We need first to halt growth of the world's population and then work toward reducing the current three and a half billion people to something less than one billion people. This number, perhaps, could be supported at a standard of living roughly similar to that of countries such as Norway and the Netherlands at the present time. The absurdly affluent and destructive standard of living in a country like the United States could not be sustained for very long for a population of more than three or four hundred million people all over the world.

One of the main purposes of the teach-in and the whole ecological movement in this country today is to direct attention to a new kind of thinking about our environmental problems, a search for options so that we can decide the goals and the directions to take to provide for a future that makes ecological sense. What might such a future be like? Imagine your own.

You can imagine hearing someone say, "Remember the subdivision that used to be where that orange grove is?" You can see a web of parks throughout the cities replacing the freeways and streets that once dominated. You can see agriculture become diversified again, with a great variety of crops grown together, replacing the old reliance on mass-produced single crop operations that are highly dependent on pesticides, machines, and cheap farm labor. The

traditional American values of rural life come back, and many more people grow their own food on smaller holdings and with a better quality of existence for the farm workers--and for everyone else.

More fruits and vegetables have insects on them instead of poisons. They can be brushed off or swallowed accidentally without harm. They are not mutagenic. They eat very little themselves, and because there is no monocrop, they can't wipe it out.

We see an end to some of the contradictions in American life. Where we once burned fossil fuels and polluted the air to provide electricity to run the escalators and other labor-saving devices that fattened us and sent us to the electric exercise machines and calorie-free soft drinks, we can rediscover walking. Where we overheated or overconditioned our air, we rely again on the human adaptability to stress that shaped us and gave us our physical integrity over a million years of living. Although the small labor-saving devices did not use much power, their aggregate use increased the demand for electricity, and with it the need for more dams, more oxidizing of fossil fuel, and more proliferation of nuclear power plants and their radionuclides. We find that diminishing dependence upon electric devices diminishes the need to build dams on wild rivers, pollute the air and sea with fossil fuels, and poison the ecosphere with dispersing nuclear waste.

With conspicuous consumption eliminated, we have more leisure time and a shorter work week. There are fewer automobiles, less



reliance upon wasteful packaging, and less need for the labor-saving devices that exploited natural resources in order to save time to spend with little reward in our overdepleted world. We produce what we need and not a surplus. We allocate limited resources. New economists adjust economic sights to accommodate the requirements of our spaceship Earth, limited closed system that it is. The economists rethink about growth and know that "growth for the sake of growth is the ideology of the cancer cell," as Edward Abbey pointed out.

There is less spectator sport and more participating. The American people, once a nation of watchers, are "do-it-yourself people" again. They ski where the snowmobiles took them, walk where trail bikes cruised the wilderness and swim where motorboats droned over lakes they oiled. The people buy less music and make more of their own. There is a world quiet enough to hear it in.

People are healthier. Fewer coronaries strike them because walking and bicycling and swimming keep them fitter. They are fewer people in hospitals because the old murderous automobile-oriented transportation system has been brought under control. Even the former automobile manufacturers, salesmen, and service people live longer, better lives. One major change is that every product we buy includes in its price the cost of its ultimate disposal. The many products that once were cheap because they were dumped at will have become so expensive that they no longer end up cluttering the environment.

Many of the people who were producing automobiles have been shifted into the housing and building industry. Their main job is restructuring the urban wastes to planned cities, restoring land to good agricultural use, building high-quality clustered dwellings at the edges of the good agricultural land, using recycled material from the old buildings. People ride the short distance to their work and have a chance to farm a little in the sun. There are legs and arms and abdomens where the flab was, and the air is once again transparent.

The idea that a steady state works is commonplace. The population is declining slowly toward a balance between man and the other living things upon which his own life depends. The need for, and number of, schools, doctors, highways, roads, public parks, recreational facilities, swimming pools, and other facilities is roughly the same from year to year. People work enough to service equipment and to replace things that wear out. They devote energy to increasing the quality of life rather than to providing more and more possessions. The job of the garbage man and junk man is elevated to the stature of recycling engineer, looping systems in such a way that materials cause no environmental deterioration. Many power plants and dams are dismantled as the amount of energy needed each year declines and people develop sensible ways of living that require much less power, pollution, and environmental disruption. There is decentralization of many

basic services. Ecologically sound food stores prosper, offering pesticide-free produce in returnable containers.

Advertising serves to inform, not to overstimulate, and is believable again. Wilderness areas are no longer under attack, and retread wilderness increases substantially each year; less land is needed for commercial timber production because of effective recycling of wood products, reduction of conspicuous consumption and the lessening of need as the population drops. Poisoning of the ecosystem by the leaded automobile gasoline has ceased because engine redesign eliminates the need for lead additives.

Emphysema and lung cancer caused by smog are eliminated and the smog goes. People learn how to garden again, and allow the recovery to take place of the natural forms of "pest" control instead of heavy doses of pesticides.

People are learning progressively more about relying less on gadgets. They have long since refused to buy ten cents worth of food in a T.V. dinner on an aluminum platter that will outlast the food for generations.

Many of the things built in the past in the name of conservation are being unbuilt. The Army Corps of Engineers is spending its time undoing the damage it has done over the past decades. Cities no longer ask the Corps to build a dam to prevent flooding of houses unwisely built on a flood plain. Instead, they ask the Corps to restore the

flood plain to a vegetative cover that accommodates floods--good creative work for engineers.

And that technological mistake, the supersonic transport, has long since been a strange delusion, the few that were built having been dismantled and forgotten.

So much for one view of the future--more Utopian than likely, unless people want it that way. Many believe we cannot solve the environmental problems because of the powerful influence of vested interests. Obviously we can't solve these problems unless we meet these interests directly in the political arena and demonstrate that survival--theirs and ours--requires continuing change. The massive grass-roots political movement which we now see growing can bring this about. One of the major changes of the decade can come from an ecological-political movement that bridges the gap between Left and Right and young and old. This movement will get people together behind candidates who press for a healthy environment and will turn out of office those who only pretend to do so.

The thing people must realize above all is that the solution to our environmental crises involves simple, small measures by many people in accelerating sequence. The changes needed will require a conversion like that required to win World War II and then to reconvert to peace. The reward is worth this kind of effort. Consider the alternative.

APPENDIX IV  
SPEECH STYLE PAPER

THE GROWTH OF A SPEAKER: FROM MEDIOCRITY  
TO EXCELLENCE

By  
Elwood Murray

It is easy to become a mediocre speaker. Most of us achieve that merely being alive, well, and talking. Obviously, the better speaker you are, the more influence you will exert in your environment. This seems like something worth working toward.

The past chapters have dealt with various concepts and perceptions of thought and of communications processes. So far, you have been dealing mainly with ideas and images. Now, you will become involved in a more personal sense, for our emphasis in this chapter shifts to people speaking.

While we will be dealing with reluctant speakers in much of our writing here, just keep in mind that no one is yet a perfect speaker. If he were, there would be no need for him to read this book or to take a speech course.

#### The Message: Semantic Overloads and Underloads

An easy way to lose contact with your audience is to present new or complicated information too quickly. You should realize from your own experiences as a listener that even one new word or new technical phrase can block attention to an important message. Each of us has his own level of input for new information, and anything that goes beyond that level is semantic overload. The result is a blown fuse in the brain, which sends out blocking signals saying

"I don't get it" or "That's beyond me." At this point, communication quickly halts. And if the speaker is perceptive, he will note the negative feedback and attempt to correct the semantic overload by connecting the new idea with an existing memory or an experience stored in the receiver's memory bank.

The thing for you to remember is not to crowd ideas on top of each other so quickly that your listeners cannot assimilate each meaning fast enough for comprehension and still keep up with your delivery. As an intelligent speaker, you will pace your delivery by regulating your rate of speaking, pitch and vocal modulations to keep the semantic patterns you are evoking in phase with your isomorphisms. Keeping pace with your listeners, allowing them to evaluate and comprehend the isomorphic concepts of your message, is an excellent measure of a speaker's deliberation, and deliberation is a meaningful measure of the speaker as an artist.

As you'll recall, we cautioned earlier about professional or occupational specialists who cloud listeners' minds with technical overload, e.g., the electrician speaking of "ohms," "nuvistor," and "diodes"; or the pilot speaking of "Omni," "VFR," and "IFR approach"; or the academician who speaks of "underachievers," "heterogeneous grouping," and "comprehensive evaluatory experience" to the local Rotary Club.



You, as a student fairly new to the world of communication, should be cautioned against using many of the new terms we have covered in this book merely to impress your less-fortunate friends who have not yet discovered us. Such frightening words as allness, isomorphism, and entropy are enough to frighten away most people and induce barriers to communication even among your own peers.

Semantic overload may be reduced by the use of diagrams, by roleplaying, by familiar examples, or by various visuals. In one way or another, you must always attempt to build a communications bridge across the semantic barrier between you and your listeners.

In addition to overloading your listener and blocking your message, you can find your message ignored through semantic underload. This happens when your listener recognizes your message as "old stuff"; redundancy immediately sets up a chair for boredom to sit in. When this happens, you also lose the listener.

Granted, some repetition of any idea may be necessary to establish meaningful communication. When more than one person is in your audience, your risk of semantic overlap and redundancy is greater. However, you must minimize this overlap as much as possible so as not to lose your group. Naturally, the more highly educated and sophisticated your audience, the less tolerance they will have for overlap.

The artful speaker succeeds in keeping himself balanced upon a tightrope, with the obscurity of overload on one side and the boredom of underload on another. In baseball, the successful base stealer knows just how much or little lead to take on the pitcher, and in speaking, the same knowledge applies the same way--that is, if you stay too close to the "base," you won't advance; if you get too far off, you might be tagged out.

Perhaps our best advice here might be: watch your words as carefully as you watch your step.

Awakening the Slow Learner:  
He Finally Makes It

There is a vast difference between the slow learner and the retarded person yet both may be more intelligent than initial contact would indicate. In the case of the slow learner, his problem usually is one of assimilation and comprehension, which seem guarded by a barrier of unresponsive lack of ambition. The retarded person, on the other hand, is usually a victim of a birth injury, childhood disease, or other physical abnormality.

In the case of the slow learner--and there are thousands of people of all ages in this category--the major problems are cultural deprivation; lack of stimulation, social contacts, and motivations;

a strong antilearning environment; and self-inflicted semantic disorders, e.g., the "I-can't-learn" feeling.

While the retarded have been aided greatly by both medical specialists and special-education people, the slow learners have been less fortunate in many cases. In instances where the special-education professionals have been able to work with slow learners, the progress in attainment has been marvelous. One of the most exciting ideas to come along in recent years is that the traditional IQ test measure of a person's intelligence is not a static quantity, and that a person who scores badly on an IQ test is not necessarily doomed to second-rate citizenship and mental inferiority for the rest of his life.

In the great gray "prisons" of our nation's slums and ghettos are children who have never been to a zoo or to a museum. They are hemmed in economically and socially, and they live in utter monotony, isolated from the rest of the world by neglect. No wonder they become hostile to the constructive, educational influences in society. Once in school, failure is heaped upon failure. For most, even a feeble showing of desire or curiosity is derided by peers or parents or squelched by an insensitive teacher. These rejections result in a loss of identity, and the youngster falls under the example of his peer group in his desperate search for "Who am I?" This is the classic life cycle of the dropout and delinquent and is an extreme case, both in terms and numbers, because there are so many of these young

people in our society today. They are easy prey for extremists who mobilize youthful anxieties into pointless violence.

Other slow learners come from low- and middle-class homes and don't live in ghetto areas. They, too, may be culturally deprived, and they often have emotional problems for one reason or another. While their problem is different and ostensibly less extreme than that of the ghetto child, it is no less distressing and often harder to overcome. In both cases, it is the communicator's role and the teacher's job to knock down the barriers to communication and learning. Let's look at these problems a little more specifically.

Slow learners typically abstract less than their capacities warrant, yet they notice and retain only a meager amount of information. They are dull in the discrimination of differences, and their inferences stop at the lower orders of abstraction. Obviously, because of the deprivations they have, they possess less with which to abstract. When self-reflectiveness is a factor, their predictability and evaluating become twisted and inadequate, and their abstraction of similarities soon becomes l3, activated by unpleasant past situations. Their "allness" attitudes are based on hopelessness, if not open hostility. They are often predominantly intensional in orientation.

As we've stated, release from these semantic disorders requires specialized help from schools and from community. Many slow

learners could be pulled from the morass of mediocrity by cooperative teamwork among parents, teachers, and otherw within the community and its social system. The basic problem is twofold: placing the child in decent personal relationship with his situation and showing him how to think relationally about what he could write or speak. Obviously, as his experience deepens, his reading and speaking take on fuller meanings, and his deprivations will begin to wash out of his active mind. As he begins to understand comparison and analogy, he sees meaningful relationships, and he begins to learn how to abstract, and his awareness deepens. In a reward sense, he finds his personal influence over his environment growing as his abilities grow.

Perhaps you wonder about the relevance of so many sentences about the slow learner. Perhaps you can identify only partly with his problems. Please recall that the term "slow learner" is a relative term, and we have given you only the darker side to show that nothing is impossible when it comes to communication and education. What application does this have for you? As a future teacher? As a speech student right now? As a businessman in a few years? As a civic leader later? As a housewife? As a human being? Only you can answer the question about your relationship to the slow learner--and we bet somewhere in your mind you are already doing so. With that, let's take another step up the educational ladder in our quest for communication betterment.

### From Reticence Into Leadership

The reticent speaker is not a slow learner in the sense of that term as we have just covered it. He is a person who, for one reason or another would prefer to remain silent and uncommunicative. Part of this attitude may lie within the person, e.g., he just has nothing to say for one reason or another. The major reason, usually, is a lack of confidence in ability to speak to others. For fear of failure, the reticent speaker shrivels his communication with others, and lets the less inhibited monopolize conversations.

Study of case histories of the reticent speaker indicates that little failures tend to escalate into bigger and bigger failures. Sensitive to the failure to meet the goals, the person begins to narrow his attempts, and a self negating pity begins to take over. How often have you heard a student express such attitudes as "I'm no good at . . ."; "I'm afraid of . . ."; "I couldn't do . . ."; "I just know I'd fail . . ."? Or how many times have you said something like that yourself?

This student passes up verbal opportunities, and often takes refuge in another type of activity, always seeking some means by which to win recognition. Oddly, some of the more reticent become excellent writers of theory and history, because they can "hide" in libraries, do research and writing, and let someone else promote their work.

To some degree, the reticent speaker recognizes his problems, and although he may not face up to them immediately, at least he knows he has a communications problem. Some authorities suggest that semantic indexing and semantic dating are possible solutions for the problem of reticence, in that both reduce the damaging assumptions of  $I_3$  and "allness" attitudes. The goal is the gradual increase of extensionality, which will cause the past influences to fade, and the spontaneity of thought, speech, and action to blossom forth.

What we are saying, of course, is that the person who is reticent needs to have his confidence developed. He should recognize, and so should his teachers, that this comes about gradually, with a block of success here and a block of success there . . . finally, someday, forming a solid foundation from which the newly successful speaker may address his peers. As this process is going on, however, the circles of influence widen as the speaker gains more and more confidence.

A college speech class probably offers the finest opportunity for the reticent to make progress in communication growth. This shouldn't surprise you. After all, do you come to a speech class as perfect speakers, only there to amaze each other with your oral grandeur, or do you come to learn and practice? The more useful speech classes will offer an assortment of activities for students including many channels for the reticent to interact with others

similar to him, and with other students too. For example, roleplaying has been demonstrated as an effective aid in developing confidence in reticents. Oral interpretation of drama and other writing has helped these communication-shy persons too. Hundreds of young men and women, for instance, have diminished their speech reluctances by taking the roles of Romeo and Juliet in the famous balcony scene, and have gone from there into more difficult areas that strike more directly, and actively, at their semantic disorders.

In addition to the above techniques, case studies and practical situations may be designed around the family, job, church, fraternity, sorority, or the community. Valuable preparation and involvement may be gained for the reticent when he takes part in these sociodrama situations. Of course, sociodrama is not truly real life, but it comes close, and it will at the very least provide a familiar referrent when the student does find himself in the "live" situation.

A similar activity that will aid the reticent in improving his ability is to take part in public speaking, discussion group, and debate activities. These are active and potent means for him to improve his speech personality, and they will enable him to build confidence in his own ability.

Unexpected bonuses await the student who is willing to admit he has a reticence problem, and is even more willing to try to do



something about it. We've listed a few examples of those "somethings" above. His reward? Improvement in relations with others is a direct result of improved speech communication. And with better relations in oral communication, the entire academic and social world suddenly becomes much brighter and more rewarding to the individual.

### From Crudity and Affectation--To Art

Speech, like other disciplines, has several areas of specialty. Public speaking, discussion, and debate often have been called "applied arts," while oral interpretation and drama are classes as "fine arts." The time has passed when this dichotomy served any useful purpose. All of us have been present at speeches, discussions, and debates--in person or on T.V.--that for ease, grace, wit, and finesse we called "art." Whether they were "applied" or "fine" art was unimportant.

Such men as John F. Kennedy, Winston Churchill, or Adlai Stevenson represent maturity of communication. Their "art" was far more than simple refinement and skill in language, logic, and persuasion. They achieved a pinnacle with their "art" because no one could seriously doubt their honesty, sincerity, and integrity. They seem to fulfill the classical concept of the speaker as a "good man who speaks well." They could stand up to judgment on both their purposes and their means.

This is very important to success at communication. Men who understand themselves extensionally have no trouble with their means.

This is very important to success at communication. Men who understand themselves extensionally have no trouble with their own identity. They understand what they can do and what they cannot do in a given situation. They are able to utilize many resources as they present their message. The expression of integrity or ethos from such men makes them appear credible, believable, to their listeners. True credibility cannot be achieved merely by sharpening skill.

The highest degree of wit, polish, and cultivation can become an instant and hostile interference with communication if there is the least suspicion that the speaker is not fully committed to what he says, particularly if the audience suspects some selfish motive or vested interest is concealed in the message. This was the problem faced by President Lyndon Johnson when he confronted the "credibility gap" issue, for many Americans suspected him of deceit, though little tangible evidence was offered by anyone to prove it. The late Senator Robert Kennedy encountered the same kind of suspicion in his tragically short campaign for the presidency in 1968. Many labeled him an "opportunist," a charge from which he never fully recovered. Thus neither position nor sophistication seems to be sufficient to establish credibility. The most scientific selection of words and phrases,

the most carefully selected, tailor-made ideas, beautifully enunciated, still do not raise the act of communication to the status of "art."

The man who is skilled, but is not fully credible is called a sophist. This uncomplimentary epithet implies that the audience regards the speaker as a "slicker" or "con artist." This inference is made often, and unjustly, about able and articulate speakers who appear crude and uncoordinated.

Whatever their validity, a speaker must live with the evaluations of his audience. The reputation lives and transfers to other times and other situations, for it cannot be assumed that the typical audience is capable or willing to use the semantic devices. Part of development of skill, therefore, demands the development of a strong ethos capable of carrying the speaker through the most threatening situations of negative evaluation.

Many of us react negatively to certain speech styles. We label a cultured tone as "phony," "put on," "ivory tower," or "theatrical." On the other hand, many listeners may be overawed by this same sophistication. There is a tendency to equate smooth and fluent delivery with superior intelligence. These people, according to Wendell Johnson, overvalue delivery without subjecting it to critical evaluation. It would appear that the intellectually snobbish, then,

are no less gullible as listeners than those persons with educational or cultural deprivation!

At that lower end of the cultural spectrum, you find the crude, gross, and uncouth mores of language and speech. Vocabulary is meager, and repetitious slang hangs heavy in the speech patterns, grammar is ignored; mispronunciation abounds, and profanity and vulgarity run rampant through conversation. There is no model of personality that these persons can follow to better their communication patterns.

Of course, a great deal of communication at this level is rebellion by young people against the standards demanded by their family and school situations. This rebellious use of crude patterns differs greatly from the slum-area patterns, although the results are likely to be self-defeating. While it is clearly understood that profanity, for example, can be a natural part of a man's style, the normal listener will still evaluate it negatively.

The only way to bridge this semantic gap is through face-to-face communication and a "selling job" on the idea that there is a better way to communicate, and that it really is better! In this respect, the mass media can do much to aid communication betterment. Television is widely criticized because it does not meet the cultural standards imposed upon it by various self-proclaimed literati who feel the medium must conform to their set of rules. However, the

success that television has had as a mass medium can be attributed to the fact that it does not conform to these elite ideals; instead, it is a natural idiom couched in the language and imagery of the mass population. Television "talks" the language of a far larger percentage of our population than do the literati who deem the medium a cultural desert or vast wasteland. While we could debate the honest and sincere motives behind contemporary programming practices, there is absolutely no doubt that television communicates effectively.

You, of course, share a great deal of responsibility in this area too, and this betterment of communication might just be one of the debts you owe your society. Think about it.

#### When Science and Art Join in Speech

An art is generated by the semantic responses of the person who involves his relationships with that which he beholds. Art is a value judgment, and an appreciation based on past experiences related to present perceptions. This does not mean that a man seeing Edward Steichen's photographs or hearing a Beatles' composition for the first time cannot appreciate either as art--although he must have something in his memory bank with which to associate the new perception in order to identify and evaluate it. Remember, though, that in communicating about any art, you are as subject to reactions and

to semantic disorders as you are to what the objects themselves symbolize.

We are saying that art is a series of abstractings of value judgments made on the symbolic worth--to the perceiver--of objects and ideas. Many speech students are blithely unaware of confusing orders of abstraction as they engage in futile arguments about what is or what is not art, what is or is not a speech disorder, or what is or is not good television programming. In discussions, and often in loose-format graduate seminars, speech students are prone to carry their rhetoric into even higher orders of abstractions after only the most meager analysis, and with little specific reference to the topic itself. This develops into unintelligent, generalized, intensional complaint about a concept into which the critic has little insight. Such emissions cannot be considered "art" regardless of the vehemence with which they are uttered.

If a message is not to the point, directly relevant to speaker and listener concerns, it cannot be art. Some speakers try to cloak their remarks in long words, attenuated and contrived phrases, hoping, perhaps, to overcome deficiencies in reason through the power of words. But words have little power if they do not point to extensional data. The typical audience responds to such a speech as "arty," and withdraws into a semantic stupor, hiding their real feelings with

devastating remarks like, "isn't that interesting?" A more frequent reaction, however, is a noncommittal, negative silence.

Response to an artistic performance is displayed through a change in our personality. An exciting speech, a truly great play or musical performance excites us, and we cannot help but express our understanding and approval. A speaker can estimate his own approach to the quality that would make him artistic by taking an extensional view of the response given to him and his message. When he is specifically aware that the audience "understands" and accepts, then he can feel secure in continuing. Messages of confusion or rejection require that he alter his style. It is imperative, when speaking to others, to make them the prime focus of concern. The speaker's task is to relate audience and topic. His personal concerns must be minimal in order to bring this about.

Every idea has its own rhetoric, sources of persuasion. The speaker must discover in an idea elements that give it appeal for the audience. Part of this can be done by organizing or structuring it into a form that makes it easy for the audience to understand. The language with which the idea is expressed must be carefully selected so that words do not confuse or distract, and the delivery of the message should be coherent and appealing. Each of these isomorphisms represents a harmonious expression of the idea, a reinforcement that helps drive the idea through the various resistances that an audience

can raise against it. The speaker is the medium, and he and the message combine to reach the minds of the listener. The speech becomes an "extension of man" in the best McLuhan sense.

Now that we have found the art, the next logical step would be to draw some boundary lines around it. But there are no precise measures to separate the crude, the vulgar, and the tasteless from the beautiful and the cultured. It is functionally impossible because so much depends on the tastes of the listeners and the demands of the situation. Just as there are disagreements about what object is worthy of being in an art museum, there is discord about the qualities that make a communication "sublime." Of course, we will probably always have self-styled censors who would impose their own, often neurotic, whims and tastes upon us all. And, there will always be blind prejudice against new and startling ideas, forms, and styles. Critics will continue to be critics, usually unaware of what they are doing, as they blindly abstract and segment the communication process in their critique of various art and social forms and concepts. Surely, though, there must be a better way!

Perhaps, in the future, we can utilize scientific methods to help define the art of communication at operational levels. We have been discussing these operational levels in each chapter of this book so far, and we have been trying--almost desperately--to point routes along which the two forces could proceed toward unification



at the great common denominator--human interaction in the search for truth and authenticity.

It has been said that the greatness of a message lies in the truth it manifests. This word truth needs much indexing and dating, because there are as many truths as there are communicators and receivers to symbolize, everyone has his own truth. For example, truth may lie only in fidelity to the drives of the artist as he creates, without reference to others who might experience it. Art may lie in the capacity of the communicator to achieve goals, though this perhaps might be called "expediency." Art may refer to elevating the emotions, though this might be termed "demagoguery." Each definition that we make of art can be called by another name, a pejorative designation.

When scientific propositions are applied to an understanding of art, the production often loses its vigor. It does not help much to attempt to explain DaVinci by detailing the chemical composition of the colors he used on his canvas. By the same token, even the most careful examination of the nature of the words and phrases used by "artistic" speakers will offer little insight into what made their speaking great.

If we try to operationalize our investigation, we find some useful precepts. For example, we can be quite certain that effectiveness in speaking is related to the amount of understanding of,

and concern for, the audience that the speaker shows. We know that effectiveness has something to do with the speaker's unwillingness to compromise his personal belief, even while he adapts it to his audience's capacity to understand and believe. We know that propriety has something to do with effectiveness that communications which appear awkward, disjointed, or out-of-phase with the occasion or audience do not succeed well. We know that the artist-speaker must show more concern for a specific audience than the artist-writer, for the reader can put down what he finds unpleasant or obscure, while a listening audience often has no choice but to hear it out.

What we do not yet understand is the relationship between effectiveness and art. It appears, at this moment in time, that scientific investigation of the communication process can help us to become more effective. We do not yet have a way to pinpoint the elusive quality that carries us beyond effectiveness to art, and thus, we find ourselves still rooted in the term science-art when we talk about learning to speak well.

There are many texts which offer specific instruction for achieving success. This particular text will make no such suggestions. In the first place, the authors would have little more to offer than can be found in many good books. The Bobbs-Merrill Series in Speech Communication, for example, examines many types and styles

of speaking in detail, and covers the same ground we would have to cover, if we were attempting to give such advice. There is nothing to prevent a student from picking up these books and examining them, provided he understands that even though it appears that "rules of success" are being offered, the individual human is so crucial in the communication act, that the eventual result is a unique methodology, necessarily your own!

And so we repeat our one bit of advice. Learning to communicate well proceeds best through communicating, not in the form of isolated exercises, but with real people, about real issues, in real situations. Each experience can display improvement if the speaker carefully admits the maximum information (feedback) from his audience and processes it in his mind in reference to the reality. Consciousness of the goal, improvement of communication, helps the student speaker develop his own methodology for improvement. It seems to us that this is the only rational way.

Whatever happens, we must know that whatever change we make in our communication style will also change our personality. Or, do we have to change our personality to alter our communication style? Perhaps the next chapter will help us to answer this.

## APPENDIX V

### VITAS

## Journalist

### 1. Personal Information

Name: Gary D. Johnson

Address: Department of Psychology  
Baker Hall  
Michigan State University  
East Lansing, Michigan

Birth Date: December 2, 1950

Age: 21

Marital Status: Married

### 2. Present Position

Presently I am a senior (June, 1972 graduate) in the School of Journalism.

### 3. Education

High School: Brooklyn Technical High School  
Brooklyn, New York

College: B.A. (expected) June, 1972, Michigan State  
University Major: Journalism

### 4. Relevant Experience and Interests

During my four years at Brooklyn Tech, I was a member of the school's Debating Society. As a member of the society, I took part in a lot of debating contests and went to the semi finals in the city scholastic (high school) debating contest.

While at Michigan State, I retained my interest in debating. This interest is represented in my choice as majors. I am now a senior in the school of journalism. In this vain I have experience writing for the State News and am particularly experienced in covering addresses both here on campus and at the state capitol.

All in all, I am particularly experienced and adept at evaluating speeches, etc.

Public Speaker1. Personal Information

Name: Steven A. Thomas

Address: Department of Psychology  
Baker Hall  
Michigan State University  
East Lansing, Michigan

Birth Date: August 29, 1950

Age: 21

Marital Status: Married

2. Present Position

I am a senior in the College of Communication Arts.

3. Education

High School: The High School for the Performing Arts  
Manhattan, New York

College: B.A. (expected) June, 1972, Michigan State  
University      Major: Television and  
Radio production

4. Relevant Experience and Interests

Firstly, it should be realized that I am an experienced public speaker. In high school I took part in the public speakers club. As a member of the club we gave speeches on many topics both for class credit and in competition.

While at Michigan State, I have participated in the Speakers Forum and other debate clubs. Until my sophomore year, I participated in these activities only as a hobby; now however, I have decided to do graduate work in Television and Radio and seek a career as a T.V. or radio announcer. Throughout high school and college, I have given a total of one hundred and forty-three public speeches and as a result feel competent to direct speech preparations.

Speech Teacher1. Personal Information

Name: Prentice Stewart

Address: Department of Psychology  
Baker Hall  
Michigan State University  
East Lansing, Michigan

Birth Date: June 8, 1950

Age: 21

Marital Status: Married

2. Present Position

I am presently a senior in the College of Education. My major is secondary education and my minor is speech in the college of Communications.

3. Education

High School: Andrew Jackson High School  
Cambria Heights, New York

College: B.ED (expected) June, 1972, Michigan State  
University      Major: Secondary Education  
                         Minor: Speech (Communications)

4. Relevant Experience and Interests

As a high school student I participated in the Public Speaking and Debating club. As a member of the club, I gave numerous speeches in both public speaking and debating contests.

Although during my freshman year at Michigan State I participated in the Speakers Forum, I have since then, turned my interests to the teaching of speech. Since shifting my emphasis to teaching, I have participated, in conjunction with my professors, in numerous speaking and debating seminars around the state.

As a result of this experience I feel uniquely qualified to take part in this project.

**APPENDIX VI**  
**POST HOC ANALYSES TABLES**



TABLE 6  
 MULTIVARIATE ANALYSIS OF VARIANCE OF EFFORT SCALE  
 THREE LEVELS OF INFLUENCE (A) BY TWO OF RACE (B)

F-Ratio for Multivariate Test of Equality of Mean Vectors = 1.6273			
Source A	DF = 16 and 92	P < .0771	
Variable	Mean Square	F (Univariate)	P Less Than
1. Book related to content	0.0002	0.0018	0.9983
2. Effort related to content	2.4020	3.8014	0.0287
3. Books related to style	0.0487	0.9565	0.3908
4. Effort related to style	0.3235	1.6975	0.1930
5. Amount of thinking	0.4549	0.8704	0.4248
6. Amount of rewriting	0.2377	0.4480	0.6414
7. Feelings about returning	0.1138	0.3128	0.7328
8. Attitude of group	0.0903	0.2118	0.8098
DF (Hypothesis) = 2 DF (Error) = 53			
-----			
F-Ratio for Multivariate Test of Equality of Mean Vectors = 1.3671			
Source B	DF = 8 and 46	P < .2362	
Variable	Mean Square	F (Univariate)	P Less Than
1. BKSCON	0.0002	0.0018	0.9659
2. EFFCON	0.0249	0.0393	0.8436
3. BKSSTY	0.0170	0.3330	0.5664
4. EFFSTY	0.0207	0.1087	0.7429
5. THINKN	0.5181	0.9913	0.3240
6. Rewrit	0.9370	5.5352	0.0224
7. Feelin	0.3891	1.0693	0.3059
8. Attitu	0.7461	1.7496	0.1917
DF (Hypothesis) = 1 DF (Error) = 53			
-----			
F-Ratio for Multivariate Test of Equality of Mean Vectors = 0.7005			
Source A X B	DF = 16 and 92	P < .7867	
Variable	Mean Square	F (Univariate)	P Less Than
1. BKSCON	0.0002	0.0020	0.9981
2. EFFCON	0.1971	0.3119	0.7334
3. BKSSTY	0.0165	0.3242	0.7246
4. EFFSTY	0.2094	1.0987	0.3408
5. THINKN	0.3344	0.6398	0.5315
6. Rewrit	1.2835	2.4190	0.0988
7. Feelin	0.1149	0.3158	0.7306
8. Attitu	0.2875	0.6742	0.5139
DF (Hypothesis) = 2 DF (Error) = 53			

TABLE 7

MULTIVARIATE ANALYSIS OF VARIANCE FOR EVALUATION  
OF SPEECH OUTLINES--THREE LEVELS OF  
INFLUENCE (A) BY TWO LEVELS OF RACE (B)

Source		F Ratio for Multivariate Test of Equality of Mean Vectors = 0.8431 DF = 6 and 88      P < .5402		
A				
	Variable	Between Mean Square	Univariate F	P Less Than
1.	Quality of Effort	0.9156	0.9753	0.3848
2.	Overall Evaluation	1.0652	1.6499	0.2033
3.	No. of Words in Outline	6818.3122	.8113	0.4506
-----				
B		F Ratio for Multivariate Test of Equality of Mean Vectors = .7475 DF = 3 and 44      P < .5297		
1.	Quality of Effort	0.0925	0.0985	0.7551
2.	Overall Evaluation	1.3494	2.0902	0.1551
3.	No. of Words in Outline	8537.4454	1.0159	0.3188
-----				
A x B		F Ratio for Multivariate Test of Equality of Mean Vectors ! .7589 DF = 6 and 88      P < .6041		
1.	Quality of Effort	.2913	0.3103	.7348
2.	Overall Evaluation	1.2961	2.0076	.1460
3.	No. of Words in Outline	1299.7030	0.1547	.8572

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