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**GROUPS AS SELF-REGULATING SYSTEMS:  
A CONTROL THEORY PERSPECTIVE OF  
NORM FORMATION AND ENFORCEMENT**

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# **Groups as Self-Regulating Systems: A Control Theory Perspective of Norm Formation and Enforcement**

## **ABSTRACT**

This paper attempts to describe the integrated nature of norm formation and norm enforcement. Previous research in the study of norms falls short of explaining the reasons that norms emerge and are enforced. Control theory (Carver & Scheier, 1981), a theory of self-regulation, is applied to both norm formation and norm enforcement to provide models of both of these processes. The hierarchical nature of normative control is discussed as well as the implications for how norms become institutionalized.

# **Groups as Self-Regulating Systems: A Control Theory Perspective of Norm Formation and Enforcement**

Gary C. McMahan

Increasingly, organizations are designing work to be performed in groups (Bettenhausen, 1991). Although the organizational behavior literature has provided some valuable techniques for motivating higher individual performance when that performance is independent of others (e.g., Locke, Feren, McCaleb, Shaw, & Denny 1980), the new emphasis on work teams presents unique challenges for managing employee behavior in the context of groups. One of these challenges is to understand the processes through which group norms affect individual behavior.

The study of norms can be traced back to the classic studies of Muzafer Sherif (1936). Many authors have subsequently utilized the concept of norms to explain a variety of social events (Asch, 1951; Seashore, 1954; March, 1954; Trist and Bamforth, 1951; Schachter, Ellerston, McBride and Gregory, 1951; Whyte, 1955; Jackson, 1966; Janis, 1972; Longley and Pruitt, 1980).

Although norms are rarely documented or even discussed, they can have a powerful and consistent influence on group behavior (Hackman, 1976). Bettenhausen and Murnighan (1985) stated that norms are one of the least visible and most powerful forms of social control over human action. Norms are a critical social-psychological and organizational concept that influence group effectiveness. Despite the fact that norms have been frequently discussed throughout the literature, little is known about the actual formation or enforcement processes. There is agreement that norms develop and are enforced, but very little theoretical attention has been paid to the processes through which norms emerge and regulate human behavior.

The purpose of this paper is to examine the phenomena of norms as it relates to group outcomes. By using basic concepts from control theory, a model of both group norm formation and group norm enforcement will be presented. Although both models may well be generalized across a variety of norm-type behaviors, the scope of this paper will center around group

production process norms (Goodman, Ravlin & Schminke, 1987). This type of norm accounts for group standards (e.g., output), task behaviors (how to get the job done) and indirect production activities (coordination, communication, etc.) (Goodman, et al, 1987).

## **CURRENT THEORY OF NORMATIVE PROCESSES**

The phenomenon of norms, although certainly not a new discovery, still seems to lack thorough understanding. Sherif (1936) defined norms as the customs, traditions, rules, values, fashions, and any other criteria of conduct which are standardized as a consequence of contact with individuals. Steers (1981) called norms a standard that is shared by group members and which regulate member behavior. Norms are therefore the informal rules that groups adopt to regulate and regularize their members' behavior (Feldman, 1984). These rules are socially constructed guides which, for the individual, act as frames of reference through which the world is interpreted (Brown, 1988). While there is little disagreement regarding what norms are and what norms do, relatively few attempts have been made to explain how norms develop and how they are enforced. This section will review these prevailing views on norm formation and enforcement, and discuss their shortcomings.

### **Norm Formation**

Feldman (1984) identified two areas that have continually been overlooked in the study of norms. His work discussed both norm formation and norm enforcement as the missing ingredients to the understanding of normative control. He stated that norms develop gradually as group members learn the behaviors necessary to provide effective outcomes. Those behaviors requiring regulation, as informally defined by the group's needs, will ultimately be brought under normative control. He posited that norms develop in one or more of the following ways: a) by explicit statements from supervisors or co-workers, b) from critical events in the group's history, c) by effects of primacy, and d) from the carryover behaviors from past situations.

Another major contribution to the understanding of norm formation involves the concept of behavioral scripts. Bettenhausen and Murnighan (1985) discussed norm formation as a dependence relationship with group member scripts. As group members interacted with each other they either revised their own beliefs about appropriate action and adopted the emerging group norm, or they tried to pull the group toward their own direction through challenges to the implied norm. Using the concept of cognitive scripts, Bettenhausen and Murnighan (1991) found that members of newly-formed groups determine their actions and interpret others' actions based on their similar experiences in other groups. They noted that similarities in interpretations of others' actions and similarities in cognitive schemas and scripts used to give those interpretations meaning lead members to implicitly agree on common understanding of appropriate behavior for a given situation. In the absence of these similarities, members must negotiate over what constitutes appropriate behavior.

### **Norm Enforcement**

Feldman (1984) stated that groups do not establish and enforce norms for every conceivable situation, but only with respect to the behaviors which have some significance for the group. He described four conditions under which he hypothesized that norms would most likely be enforced. Those conditions are 1) if the norm is required to facilitate group survival, 2) if the norm would help to simplify behavior expectations for the group, 3) if the norm assists the group to avoid embarrassing interpersonal problems, and 4) if the norm represents the central values of the group and clarifies the identity of the group.

### **Shortcomings of the Current Literature**

Although these previously discussed authors have provided some valuable insights, there is obviously much left to be learned about the actual process and reasons that norms are developed and enforced. Feldman (1984), was quite explicit regarding the types of variables which can influence norm formation, yet he did not explicitly discuss the process through which

these effects take place. He did not explain why, or under what circumstances a supervisor's comments or a critical event may result in a norm being formed. Bettenhausen and Murnighan (1985) were more explicit in defining how norms developed in newly formed task groups by presenting shared cognitive scripts as the basis for norms. However, they failed to discuss why and when these scripts would be adopted as norms.

Regarding norm enforcement, Feldman's (1984) delineation of the conditions under which norms would most likely be enforced was valuable to our understanding of when they are enforced. Feldman stated that one of the goals of his paper was to discuss why norms are enforced, and this led to the delineation of the conditions under which norms are likely to be enforced. However, he failed to discuss the specific manner in which these norms would be enforced, and questions still remain on how the process of group norm enforcement actually works (Goodman et al, 1987).

Finally, we argue that in order to better understand the normative control process, both norm formation and enforcement must be considered together. Research in this area cannot be advanced efficiently as long as researchers view these concepts as independent. In order to integrate norm formation and enforcement, what is needed is both an understanding of the socially constructed nature of groups and a theory which explains the relationship between these processes.

### **The Nature of Groups**

In order to understand how norms are formed and enforced in groups, it is important to recognize the nature of the group. Weick (1979) presented a model of the way in which groups become socially constructed which may aid in understanding the way in which norms are formed and enforced. He noted that groups are originally made up of individuals seeking to achieve their own individual goals. However, these individuals are interdependent upon one another, thus, in order to achieve some of their individual goals, concerted, interlocked actions are required. This results in members coming to agreement about the means (or behaviors). Once the members

converge on interlocked behaviors as they pursue diverse goals, a subtle shift occurs toward common goals. These individuals still have their diverse goals, yet these are subordinated to the emerging group goal or goals. One of these emerging group goals may be the perpetuation of the group. Thus, the group becomes socially constructed and the achievement of group goals becomes superordinate to the achievement of individual goals.

This leads to the assertion that groups, in some sense, regulate member behavior in order to achieve group goals. Weick's (1979) model demonstrates the fact that although individuals may start off having diverse goals, and even continue to hold these diverse goals, an evolutionary process takes place where the group goal becomes a superordinate goal. It is important to note that numerous goals can pre-exist or develop during the evolution of the group. While the individual's primary goals may be concerned with monetary or workrelated outcomes, over time, additional goals such as maintaining relationships within the group can develop. In any case, over time the group comes to a point where the behavior of individual members becomes regulated through shared schemas and scripts of what constitutes appropriate behavior. This regulation of individual behavior is directed toward achieving outcomes important to the group.

If, in fact, the regulation of group member behavior by other group members is done to enable the group to achieve valued outcomes, then groups exist as socially constructed cybernetic systems. These systems are capable of holding referent standards or goals, detecting deviations from those goals, and self-regulating to reduce discrepancies from those standards. This view of groups as self-regulating systems leads to our use of control theory as a means for examining the formation and enforcement of group norms.

## **CONTROL THEORY**

Control theory is a theory of cybernetic self-regulating systems (Weiner, 1948). This theory has been used in a variety of disciplines including engineering (Dransfield, 1968), applied mathematics (Berkovitz, 1974; Davis, 1977), economics (Balakrishnan, 1973; Davis, 1977), and medicine (Guyton, 1976). Although cybernetic theory has been used primarily in describing

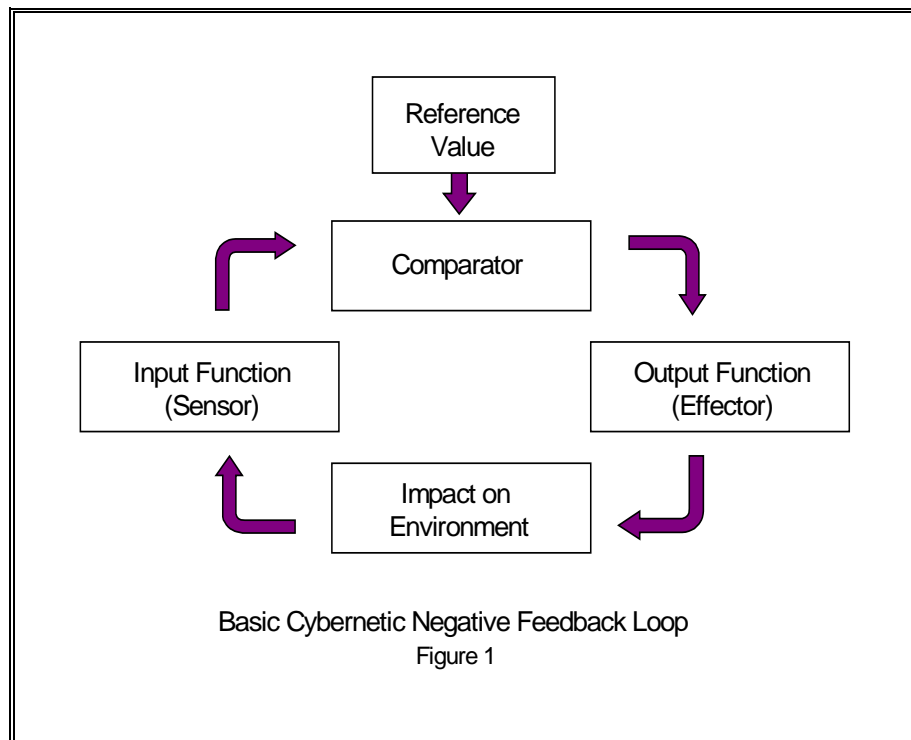


mechanically controlled systems, it is being hailed as a valuable theory for understanding human behavior (Klein, 1989).

Although various models of control theory have been used in the literature, each basic feedback model has the same essential components: 1) the input function or sensor, 2) the output function or effector, 3) the reference standard or reference value, and 4) the comparison mechanism or comparator (Carver and Scheier; 1981, Klein, 1989; Powers, 1973).

The negative feedback loop, illustrated in Figure 1, is the basic unit of cybernetic control (Carver and Scheier, 1982). The term negative is used to describe the function of the feedback loop because the system is designed to reduce discrepancies from a comparison value. The loop begins when the input function senses the current situation. The perception of the current situation is then compared to a reference value through a comparison mechanism called a comparator. If a discrepancy exists, a behavior is produced to reduce that discrepancy. This produced behavior interacts with the environment, influences a new perception, which then processes through the cycle again. As Carver and Scheier (1982) point out, this cycle produces a closed loop of control with the overall purpose of minimizing deviations from the standard reference value.

A common example of how this regulating system works is that of thermostat control. The referent value serves as the temperature that the thermostat is set on, the input function is the element that



monitors or senses the room temperature, the comparator is the mechanism which compares the current temperature and the desired state, and the output function or the effector is the furnace or air conditioning system. The continuous process of gathering input, comparing to the standard, adjusting the behavior is repeated until the discrepancy is reduced.

When using control theory to discuss human systems, it is important to understand both the cognitive and affective elements of the behavior (Carver and Scheier, 1982). The cognitive element consists of the processing of information on the situation's current state. The affective element evolves from the perceived discrepancies between the reference value and the assessment of the current situation. It is the affective component (i.e., one's desire to reduce discrepancies) which initiates behavior (Carver and Scheier, 1981).

Another important concept in control theory is the notion of the behavioral script (Carver and Scheier, 1981). As previously discussed, scripts are sequences of behavioral events expected by an individual. They are dependent on an individual's history of experiences both as a participant in event sequences and as an observer (Abelson, 1976). The basic ingredient of a script is a vignette. Vignettes represent the raw constituents of remembered episodes in the individual's life history (Abelson, 1976). A script is a linked chain of vignettes stored as a sequential unit of understanding and is called upon at appropriate moments during human functioning.

Individuals possess scripts for situations that they have encountered. A script becomes stronger as the frequency of calling on the script increases (Schank and Abelson, 1977). Cognitively mediated social behaviors depend on the dual occurrences of 1) the selection of a particular script to represent the given situation, and 2) the individual assuming a participant role within that script (Abelson, 1976).

Carver and Scheier (1982) provide a concrete example of control theory applied to human behavior using the example of driving an automobile. When one drives a vehicle the process involves maintaining a visual image of the road sweeping past the fenders and the hood of the car. The driver attempts to keep a portion of the road visible on the left side while the right edge

of the road's image intersects the hood at just the proper place. If the image is not maintained due to a left curve in the road the driver will notice that more of the road is showing on the left side. This perception differs from the standard perception that guides the driver's process. The experienced driver has at his disposal a behavioral script to reduce this discrepancy. The script, in this case, is the actual turning of the steering wheel. This behavior brings the image of the road back into an acceptable operating view. The experienced driver therefore, is able to adjust so smoothly that discrepancies are kept to a minimum.

There has been a considerable amount of attention paid to control theory as a means of explaining human behavior in organizations (Klein, 1989; Campion and Lord, 1982; Taylor, Fisher and Ilgen, 1984; Hollenbeck and Brief, 1988). However, a noticeable exclusion in the exploration of human behavior using control theory has been the potential to explain group processes. With this understanding, this paper takes an important step in using control theory to understand the normative control process within groups.

### **CONTROL THEORY MODEL OF NORM FORMATION**

Using the assumption that groups are goal-directed, self-regulating systems, the process of norm formation can be examined from a control theory perspective. In the context of control theory the reference value is initially the goal of the group. Carver and Scheier (1981) note that goals can exist at various levels of abstraction. Thus, we conceptualize this group goal quite broadly, recognizing that the goal could range from a goal for a certain production level to a goal of achieving and maintaining a state of harmony within the group.

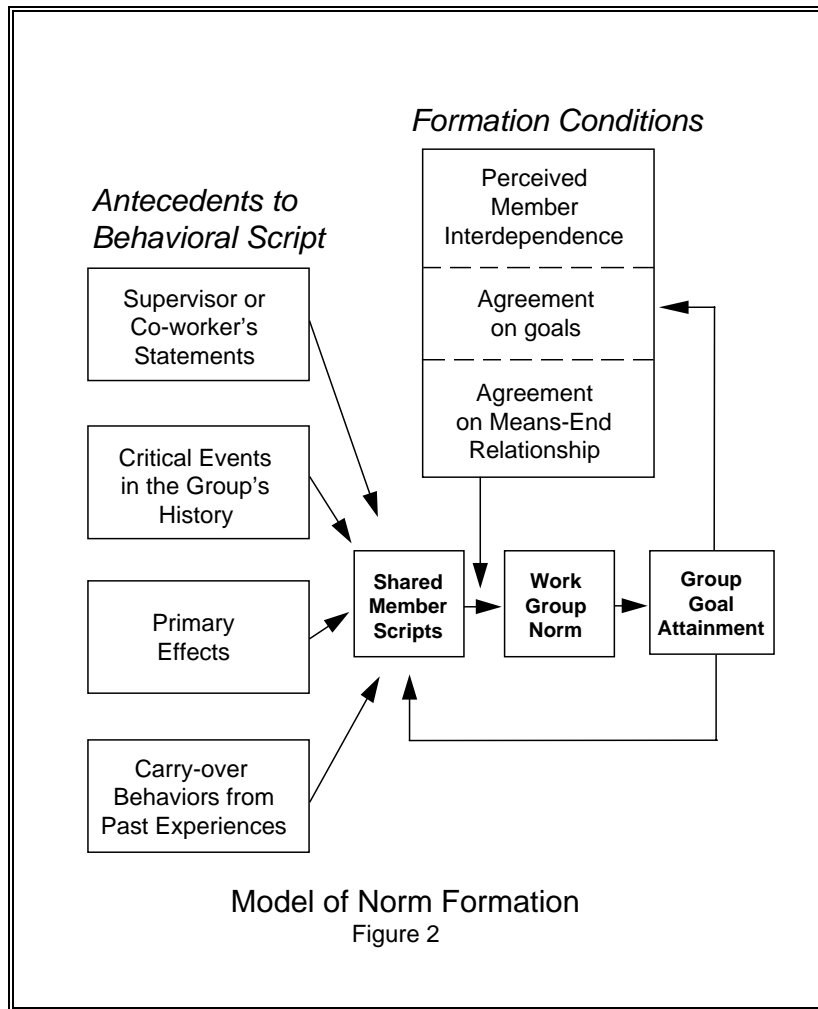
In addition, similar to Weick (1979) we note that the goal does not preclude diverse individual goals, and in fact may have developed as a result of the interlocked behaviors in pursuit of these individual goals. However, once agreement exists as to the group goal, group members must come to agreement about the interlocked behaviors which will allow the group to achieve that goal. The group will then self-regulate member behavior such that the probability of goal attainment is maximized.

Figure 2 represents a model of norm formation. A norm is defined in this model through the learned behavioral scripts that assist in leading groups to goal attainment. The model describes four potential antecedents to norm formation. These antecedents constitute the behavioral events that produce the scripts which may lead to the development of a norm.

Thus, goals and scripts are critical to the understanding of norm formation. The group goal serves as the motivating force within the individual group members. This goal need not be a quantitative performance goal, but could be a qualitative goal such as maintaining interpersonal relationships among group members. Normative

behavior exists inside a

group to assist the group in reaching its goal. Scripts serve as the behavioral components that define a norm (Bettenhausen and Murnighan, 1985). Scripts are processed through the control hierarchy until the sequences of the behavior are consistent and acceptable to the group.



## **Antecedents to Behavioral Scripts**

Feldman (1984) described four antecedents to norm formation. These are behavioral events which he hypothesized would lead to norm formation. As we previously noted, Feldman did not specify the process through which these events become norms. According to a control theory perspective of normative control, these events serve as the behavioral content of cognitive scripts.

Supervisor or co-worker statements are defined as explicit announcements of expectations by a strong leader or group member. These statements can specify the goals of the group and can persuade group members to accept these goals. In addition, statements made by supervisors and co-workers can specify the scripts considered acceptable among group members.

Critical events in the group's history are particularly good or bad experiences which affect the behavioral scripts of the group members. These events influence the behavioral scripts of group members through a shared experience. When all group members share the experience, there is a high likelihood that they will consequently share the behavioral script associated with the event. As new members enter the group, these critical events are passed on in the form of stories, resulting in new group members vicariously experiencing the critical events.

Primacy effects are initial behavior patterns that can set group expectations. These initial behavior patterns serve as scripts that all members share. They also may influence group members' perceptions about the group's goals. From these behavior patterns group members may retrospectively develop goals which are consistent with those patterns (Weick, 1979).

Finally, carry-over behaviors from past situations consist of expectations individuals bring from prior group experiences. These prior experiences influence individual perceptions of what constitutes legitimate goals of the group and the means of attaining those goals.

Bettenhausen and Murnighan (1991) hypothesized and found that members of new groups based their actions and interpret others' actions based on their experiences in previous groups.

While we agree with Feldman (1984) regarding the fact that these four behavioral events can serve as antecedents to norm formation, these events do not always lead to norm formation.

Thus, the problem with Feldman's discussion is that it does not specify when these events will lead to norm formation.

We argue that these antecedents are not direct precursors to norms, but rather, are precursors to behavioral scripts. As previously discussed and congruent with Bettenhausen and Murnighan (1985; 1991), the norm in this model is a result of shared member scripts. The four antecedents that Feldman (1984) discussed can affect the development of norms by providing a behavioral script which may or may not develop into a norm. The scripts evolve in response to the formation conditions, yet, are not in and of themselves norms. In the next section we will discuss the conditions necessary for these behavioral scripts to evolve into norms.

### **Formation Conditions**

The key to understanding this control theory model of norm formation exists in the conditions necessary for a behavioral script to develop into a norm. As mentioned above, the antecedents produce the necessary scripts which may result in the formation of a norm. However, individuals within groups have a plethora of behavioral scripts, yet not all of these behavioral scripts evolve into norms. A control theory perspective helps to understand when behavioral scripts may develop into norms.

As was previously mentioned, Feldman (1984) described norms as rules that groups adopt to regulate and regularize their members' behavior, yet failed to specifically discuss how and why this takes place. It is important to recall the discussion of Weick's (1979) model of group formation. Three characteristics of his model have implications for norm formation. First, Weick's model called for interdependence among group members. Secondly, group members must come to agree on the goals of the group. Finally, members must come to agree that the behavioral script increases the likelihood of goal attainment.

Thus, it seems that in a control theory model of norm formation, these characteristics moderate whether or not behavioral scripts become norms. In our control theory model of norm

formation, these group characteristics are referred to as formation conditions. They are further defined and discussed below:

1) Perceived member interdependence is the extent to which group members rely on each other for goal attainment. As with any organization (Thompson, 1967), groups function in a complex web of interdependence. As Weick (1979) noted, individuals begin with diverse goals, but find that when they are interdependent upon others for the attainment of these individual goals, they must engage in interlocked behaviors that allow each individual to achieve their diverse goals. To the extent that individuals are able to attain all of their individual goals independently, there is no reason for them to engage in coordinating their behaviors with others. This leads to a lower likelihood that norms will develop.

2) Agreement on goals is the extent to which goals are shared among group members. As Weick noted, as individuals pursue diverse goals through interlocked behaviors in an interdependent context, these individuals goals will be supplanted by a superordinate group goal. Where group members exhibit high levels of agreement as to the goals which they are seeking to achieve, norms are much more likely to exist. Because there is agreement on the group's goals, norms may specify some of the means for achieving those goals.

3) Agreement on Means-Ends Relationships is the extent to which group members share the perception that the behavioral script promotes goal attainment. Feldman (1984) stated that "Norms are formed and enforced only with respect to behaviors that have some significance for the group," (p. 47). Similarly, Brown (1988) stated that one purpose of norms is to facilitate the achievement of group goals. It is important to note that over time, norms become institutionalized, such that they may no longer promote group goal attainment, yet they continue to be enforced. However, a control theory perspective would argue that at least initially, group members must share the perception that the behavioral script promotes goal attainment in order for it to evolve into a norm.

Finally, a control theory view recognizes the dynamic nature of group norm formation. As depicted in Figure 2, group goal attainment reinforces the formation of a norm in two ways.

First, it increases the conditions of perceived interdependence, agreement about goals, and agreements about means-ends relationships. As the groups experiences success, cohesiveness (in terms of perceived interdependence, common goals, and common beliefs) increases. Thus, it increases the likelihood that shared member scripts will become norms.

Second, goal attainment reinforces the shared member scripts. Successfully attaining the goal strengthens group members' beliefs regarding the instrumentality of these scripts for achieving the goals, thus, increasing the extent to which these scripts are shared by all group members.

Thus, control theory goes beyond Feldman's (1984) model by providing an explanation for when supervisor/co-worker statements, critical events, primacy effects, and carry-over behaviors will result in group norms. His model, while accurate, did not address this question. For example, all groups have supervisors and co-workers that make 18 statements, critical events, primacy effects, and carry over behaviors. So how does any one or all of these result in the formation of a norm?

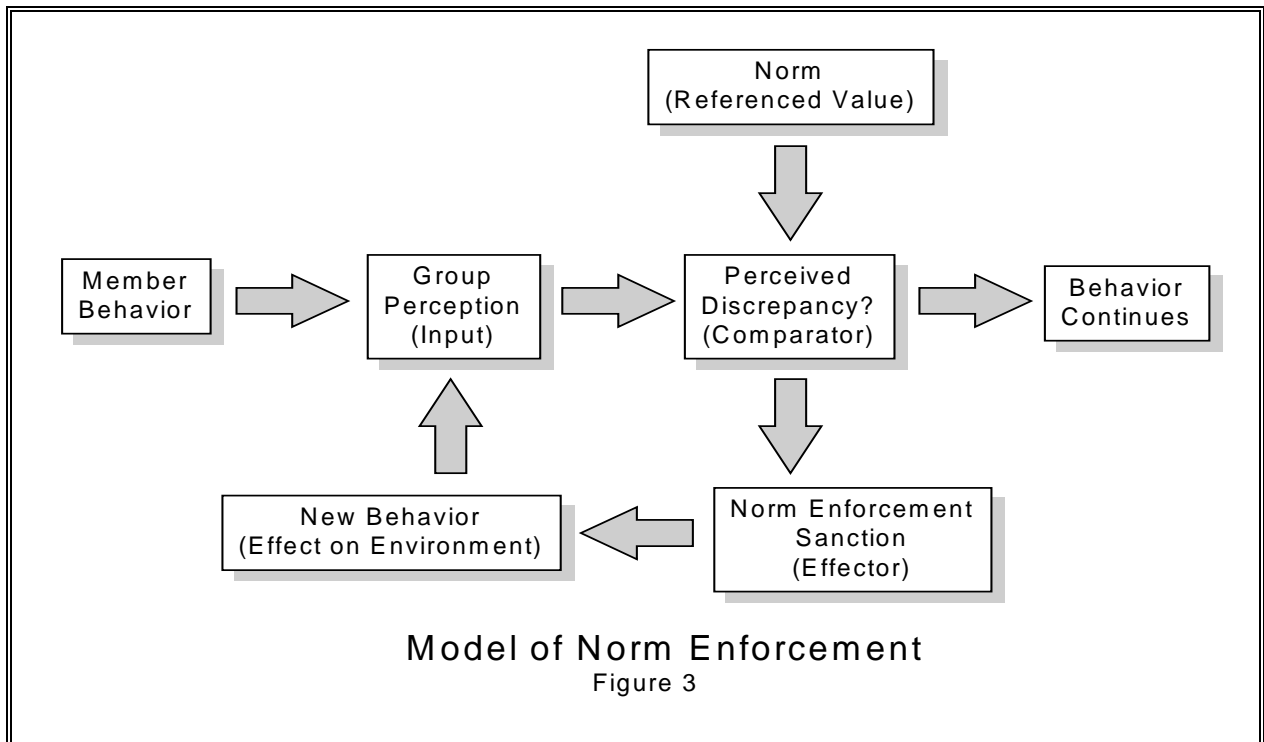
According to control theory, the behavioral events discussed by Feldman (1984) produce the behavioral scripts that form the basic structure of norms. However, it is the group members' interdependence, the agreement about the group's goal, and the agreement that the script promotes goal attainment that form the essence of the norm. These conditions lead to the development of a group norm that assists the group toward goal achievement. As shown, the norm exists in a mediating relationship with goal achievement. Finally, goal attainment reinforces the conditions that lead to norm formation as well as reinforcing the shared scripts of group members.

### **CONTROL THEORY MODEL OF NORM ENFORCEMENT**

We would argue that some degree of informal social normative regulation exists in all group goal situations. In other words, groups function as socially constructed cybernetic systems. Figure 3 represents a control theory model of group norm enforcement. The input box is the



sensing mechanism, or what is referred to as the group perception of the individual behavior. This perception is then registered into the comparator process and a comparison is made against the reference standard, the group norm. During this step an assessment is made concerning the individual behavior. If no discrepancy is found, the group perception remains constant, assumes acceptability, and awaits the next behavior that requires processing. If the behavior is found to be discrepant, the norm is enforced by some sort of group sanction. This sanctioning process is the output of the control loop, the behavior produced to reduce the discrepancy. The enforcement sanction directly impacts the environmental situation of the individual and results in some degree of modified behavior relating to the reference norm. This modified behavior is referred to as the new behavior of the individual and will be reprocessed by the group when the behavior is performed.



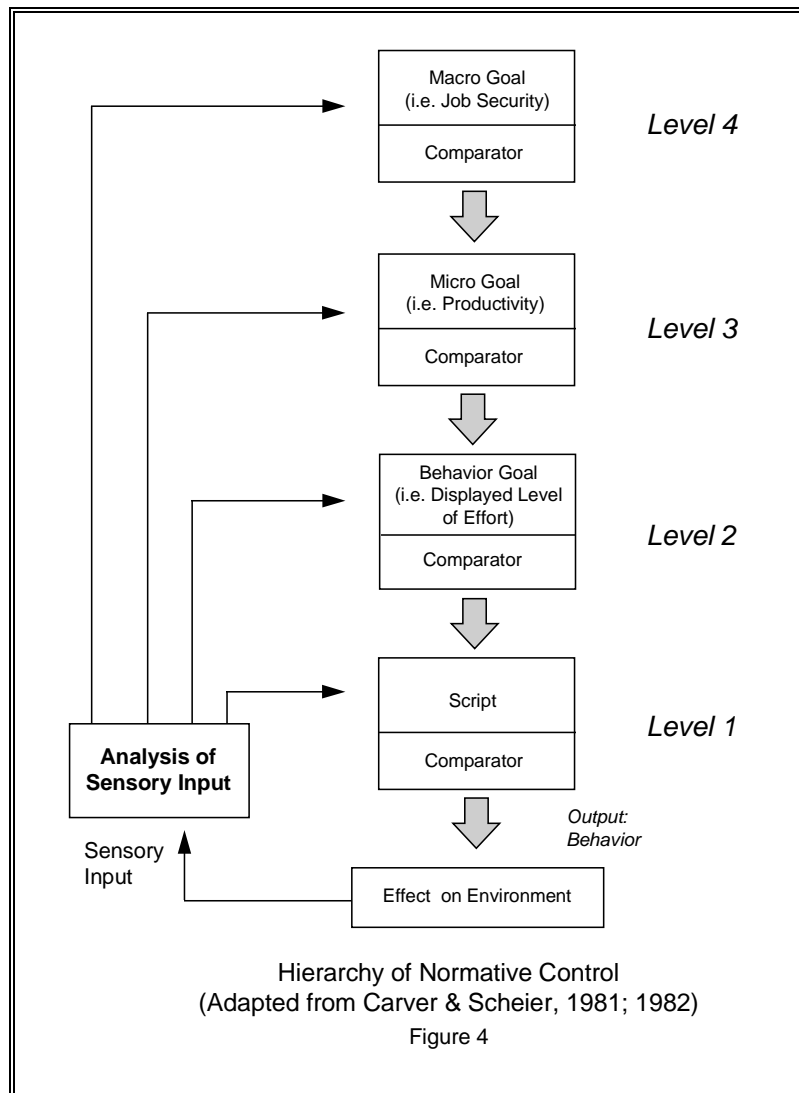
A control theory examination of norm enforcement also allows for exploring the hierarchical nature of normative behavior. It is important to note that according to Carver and

Scheier (1981) hierarchies of standards exist at various levels of abstraction. Powers (1973) suggested the possibility that control systems can be "interconnected hierarchically" and that this concept of hierarchical organization underlies the self-regulation of behavior in living systems. If normative behavior consists of the integrated concepts of formation and enforcement as presented in this paper, then the reasoning behind the hierarchical nature of control systems clearly explains the interactive process of normative control.

Similar to the hierarchical model presented by Carver and Scheier (1981), Figure 4 represents a hierarchy of normative behavior. In this hierarchy there exists a shared perception regarding the interrelationships among the different levels of the hierarchy. In other words, members possess shared scripts and share the belief that these scripts lead to the attainment of shared goals. Thus, the output function or effector at one level in a hierarchy is often the referent standard at the next lower level of the hierarchy.

The understanding of this hierarchy of normative behavior is critical to conceptualizing the integrated functioning of norm formation and enforcement. Moreover, the hierarchical loops explicitly explain the dynamic process of normative control. An example of the dynamics of this model can be traced to the experiments at the Hawthorne plant of the Western Electric Company (Roethlisberger and Dickson, 1941). The bank wiring room experiment has often been cited as an example of norm functioning. The norm of productivity was the critical issue in this experiment.

To view this example from the perspective of a hierarchical control mechanism, it is first important to understand the basic goal of the group. For the purpose of our example, we assume that at the highest level of the hierarchy (Level 4), the overarching goals of the group were job security and the avoidance of exerting excessive effort. If individuals within the group were to increase their productivity then all group members might be expected to increase their effort levels and higher group productivity would result. This increase in productivity may reduce the need for the same number of employees, thus, the company would be able to lay off some



employees. Thus, these overarching goals were the impetus for the productivity norms which were enforced. This resulted in the group implicitly agreeing on a specific level of productivity (roughly 2 completed assemblies) which group members were expected to achieve but not exceed (Homans, 1950). Thus, at Level 3 in the hierarchy, an individual's productivity (input) was monitored by group members and compared (comparator) to the reference value. If an individual's productivity exceeded this standard, the

process of "binging" (effector) was used to control his behavior. Although the new behavior is not necessarily produced instantaneously in all situations, in time the individual would stop over-producing and go over and help another worker. Thus, a norm had developed regarding the level of acceptable performance and this norm was enforced in an effort to achieve the higher level goal of job security.

However, this norm of performance required specific behaviors on the part of the individual. This leads to another level (Level 2) in the hierarchy of normative control. Individuals who were exhibiting behaviors which would lead to exceeding the performance norm (e.g., skipping coffee breaks, taking short lunches, failing to socialize with other group members)

were likewise subject to norm enforcement. If these behaviors (input) were observed and compared to the standard (comparator) by other group members, these members would similarly taunt or ostracize the deviant group member (effector).

Finally, at the lowest level in the hierarchy, certain scripts existed which served as the underlying foundation for the behaviors that were considered acceptable. As previously discussed, it is likely that individuals had similar experiences where, for example, they observed someone who skipped coffee breaks, and as a result, was a higher producer. These scripts (Level 1) were what led to the agreement that certain behaviors (Level 2) were simply unacceptable in order for the individuals to maintain the acceptable productivity level (Level 3) and, thus, for the group to achieve its goal (Level 4).

Thus, the normative control process can be viewed at multiple hierarchical levels. It is important to note, however, that we have not attempted to identify all of the potential levels in the hierarchy. Many additional levels could have existed which were parts of the normative control process, and these levels could be higher, lower, and even between the levels we have considered here. However, this model does depict how the normative control process influences behavior at multiple hierarchical levels.

The failure to recognize the hierarchical nature of group control systems has precluded past researchers from examining the processes through which norms function. Groups have overarching goals and scripts for achieving them. These goals may contain subgoals, with corresponding scripts for attaining those subgoals. This leads to viewing normative control as a process which exists at a number of levels of behavior, all of which are regulated by the group in pursuit of its goals.

### **Institutionalization of Norms**

The control theory model of norm formation and enforcement views norms as purposeful phenomena directed toward achieving some goal. However, it is important to note that goal hierarchies can change over time. We do not argue that the goals which norms fulfill at any

given time are necessarily the goals that they were originally directed toward fulfilling. Thus, these norms can easily become institutionalized (Meyer & Rowan, 1977).

Institutionalization refers to the processes through which social processes, such as norms, come to take on a rulelike status in social thought and action (Meyer & Rowan, 1977).

Institutionalization can lead to individuals accepting a shared definition of social reality where the norm comes to be taken for granted as defining the way things are to be done.

Control theory presupposes some goal-related reason for the development of a norm. However, it is entirely possible that through institutional processes, the norm becomes associated with different goals. This process could take place in two different ways. First, if the goal at one level in the hierarchy changes, a shared perception may develop among group members that the lower level is similarly linked to the new goal just as it was to the old goal. For example, the production norm observed in the Hawthorne experiments may originally have developed as a means of maintaining job security. However, after the threat of a layoff was gone, the norm could have become institutionalized through attributing to it other abstract goals (e.g., beliefs about equity, goals for maintaining group cohesiveness, etc. ).

Notice that the attribution of other goals to the norm does not argue against the validity of the notion of a control hierarchy. The hierarchy still exists; the only difference is that the next higher level of the hierarchical system has changed. In fact, Granovetter (1983) argued that a given practice may serve some function, yet this is not necessarily proof that the need fulfilled was the basis for the practice's origin. This explains how norms can be maintained in spite of the fact that the purpose they fulfill may not seem obvious, or the purpose they used to fulfill is no longer being fulfilled through the maintenance of the norm.

Second, over time, the behaviors or goals at each level in the hierarchy may develop into a goal in and of itself in the minds of work group members. In essence, as the group continually reinforces the fact that a certain behavior is expected, this behavior may become a goal by itself, to the point that no one questions its utility toward the attainment of higher level goals.

Similarly, this does not negate the notion of a hierarchy. It merely recognizes the fact that through social construction, work group members may redefine the hierarchy.

In both cases, even institutional processes can be explained through the notion of a hierarchy of self-regulating systems.

## CONCLUSION

Norms are a very powerful means of explaining group influence. They impact directly with the process of goal achievement. This paper attempted to shed some light on the process of both norm enforcement and norm development by using control theory. By viewing groups as socially constructed cybernetic systems, a control theory perspective of groups allows us to go beyond simply examining conditions which lead to norm formation and enforcement. This perspective allows us to examine the **processes** through which norms develop and are enforced. To describe the self-regulation process of work groups, norms were discussed as the means by which groups regulate member behaviors toward achieving group goals.

"It is only in the imagination that we can talk about a human group apart from norms" (Davis, 1950). It would seem that in the study of groups, researchers must try to understand the process by which norms form and the process by which norms are enforced. It is our belief that formation and enforcement must be studied and understood together. Furthermore, if researchers do not continue the study of these normative processes, then the entire concept continues to exist as only a mystic behavioral phenomena.

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