A LABORATORY MODEL OF STUDENT / ADMINISTRATOR CONFLICT

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FRANK JAMES SMITH
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This is to certify that the

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presented by

Frank James Smith

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of the requirements for

Ph.D. degree in Psychology

William L. Quaas
Major professor

Date August 17, 1972

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ABSTRACT

A LABORATORY MODEL
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By

Frank James Smith

This study examined a set of factors that are basic to the dynamic processes of student/administration conflict. From historical accounts of student movements and youth rebellions, several reoccurring conflict themes were delineated. The type of conflict that is based on issues of students' civil rights was selected for experimental investigation. An early consideration in this project was then to establish ties between the dynamics manifest in historical literature and established traditions in social science theory. Exchange theory and organization theory were judged to be particularly applicable to the present research objectives. Major tenets from these theories were abstracted as hypotheses for experimental evaluation.

Both historical analyses and theory pointed to the importance of administrative exchanges (cooperative/conflictive), and administrative decision structure (participative/authoritative) in determining student exchanges (cooperative/conflictive). Peer exchanges (cooperative/conflictive) were judged to be a critical mediating influence in the strictly dyadic student/administration conflict. The critical experimental dimensions detailed above were defined in accordance with previous work in this area. The scales were then validated on a large set of events data relating to the Berkeley Free Speech Conflict (1964-1965). Both scales proved to be predictive of students' perceptions of

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interaction events. These scales then served as the experimental control for simulation of student/administration conflict. In this research, both independent and dependent measures were operationalized through scaled events.

The experimental design was a 5-way analysis of variance design. Empirical analyses described the communications from subjects toward their administrator counterparts, their moderate peer, and their extremist peer. Analyses were both evaluative and explorative. Hypotheses of theoretical foundation were evaluated by appropriate main effects. Explorative analyses of high order interactions between experimental factors were discriminated by appropriate simple effects.

Results strongly refuted the widely held contention that authoritative and punitive administrative actions deter conflict generated by students. To the contrary, a consistent reaction effect was found which implied an operative norm of conflict reciprocity. The effects of participative decision making were complex but generally contingent upon the cooperative/conflictive character of the administration. If students had a vested interest and an expectation that their interest would be well served by student participation in decision making, then an invitation by administrators for student participation had a generally moderating influence on student generated conflict. The general effect of the peer models was to set a standard for social exchange toward which a subject would conform. However, when peer models were divided on the position of cooperation/conflict, then the behavioral result was toward resolution of intrateam differences rather than influence interteam conflict. The study was successful in

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demonstrating a new experimental simulation technique.

Discussion focused on policy implications for management of student/administration conflict. More generally discussion reviewed innovations in methodology and evaluations of theory that were addressed in the research project. Experimental results were fortified by their convergence and thus their partial replication of student behaviors manifest at Berkeley.

A LABORATORY MODEL OF STUDENT/ADMINISTRATOR CONFLICT

By

Frank James Smith

A THESIS

Submitted to

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in partial fulfillment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

1972

To: MY PARENTS

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William D. Crano served as chairman of my dissertation committee. His expertise and enthusiasm for this research project gave me an extra incentive to produce high quality and useful work. I give him highest aclaim for his supervision of my graduate program.

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I want to thank my ten undergraduate experimenter assistants and a special thanks to Kevin Shaney who worked closely with me in the formulation of this research project.

Siegfried Streufert introduced me to the rudiments of experimental simulation when I visited his research installation at Purdue University. I appreciate his contribution.

The research was made possible with the cooperation of Becky Briggs, Director of the Michigan State University Language Laboratory. My wife typed this whole damn thing four or five times, I thank her.

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INTRODUCTION

The best generalization that can be made at the outset of this project is that the data concerning student rebellion are both voluminous and feeble. That is while much has been written and said about student revolt, the majority of accounts reflect more the passion of involved groups than the rigor of the scientific method. Obviously, the occurrence of student rebellion can embroil an entire University in conflict and the consequences of this involvement can have great personal impact. As personal involvement increases, the capacity for scientific rigor may be correspondingly decreased and, therefore, rebellion within the university may incapacitate those who would otherwise be best prepared to study and explain the phenomenon. The present research attempts to circumvent this passionate interpretation of processes manifest in student rebellion by strict adherence to empirical facts from experimentation and to logical deductions of experimental simulation.

This study examines the behavioral dynamics of student rebellion. The introductory section will review the comparative/historical and popular literature relevant to the topic of student rebellion. This literature provides an appreciation for the complexity of social processes that constitute student rebellion. The introduction also demonstrates the potentially great social and psychological impact of a student rebellion. The next section of selected literature and theory provides a more rigorous review. There the purpose will be to seek established traditions from social science theory that can be

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made to account for the dynamics manifest in the comparative/historical and popular literature. In this effort, major tenets from exchange theory and organization theory are expected to be particularly applicable. Together, sections 1 and 2 are intended to provide a syntheses and integration of current writings and thereby offer an improved theoretical position for empirical study of student rebellion.)

A third section sets forth a rather complex methodology appropriate for the study of student rebellion. The section presents the operational definitions for the test and measurement of student/administration conflict. Next, a system for the content analysis of social interaction is devised and validated on two substantive dimensions of real-world data. Apparatus and soft-ware are then developed for laboratory simulation of these real world processes. The guiding principle of laboratory design is to create an atmosphere in which students involve themselves in extemporaneous interaction with other students and administrators and at the same time to control unobtrusively social interaction messages in accordance with experimental design.

The fourth section presents the experimental results and the fifth section discusses the meaning of these results with regard to the theoretical framework built in sections 1 and 2.

Finally, section 6 presents some suggestions for future research. Included in this section are some models that are amenable to empirical test given the data generated by the present study. Concluding remarks concentrate on the value of this research method and policy implications that can be made at this preliminary stage of research on student rebellion. The remainder of this section will introduce the dissertation by considering the general dimensions of student rebellion.

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The social significance of student rebellion can be great. The works of Altbach (1967), Fuer (1969), Heirich & Kaplan (1965), and Lipset (1971) have shown from a comparative/historical viewpoint the historical panorama of student rebellion.

During the latter half of the nineteenth century in Russia, university students were the principle agents to engage in demonstrations demanding freedom and economic reform. Student disorders were frequent from the late 1880's and of increasing intensity leading into the revolutionary period beginning in 1905. Berdyaev (1962) reports that the Russian workers learned the value of street demonstrations from students. Similarily, in China students helped greatly in bringing about the downfall of the Manchu Dynasty at the turn of the century. Chinese student politics reached a second climax in May 1919 when massive student demonstrations beginning in Peking brought about the second Chinese revolution. In the 1930's, student movements, demonstrations, and strikes played a major role in undermining Chiang Kaishek; and following World War II, student riots contributed greatly to the final downfall of the Nationalist regime. Perhaps contemporary efforts by the rulers of Communist countries to repress student political activities may be explained in part by their awareness of the importance of student movements in undermining the precommunist regimes of these countries. This applies especially to the cases of Poland and Hungary in 1956. In Poland, the chief organ of criticism was a student journal, Po Prustu (Plain Talk), which served as the main rallying point for the liberal elements as long as it was permitted to exist. In Hungary, too, university students were a major force among the groups taking part in the unsuccessful revolt. The Syngman Rhee regime in

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Korea was finally overthrown in 1960 as a result of student demonstrations, and similar actions have been directed against its successor, military regime during 1964. Mass demonstrations in Japan, manned almost entirely by students and directed against the passage of the Japanese/American Security treaty, prevented President Eisenhower from visiting that country in 1960. Simiarily, recently proposed visits by Nelson Rockefellor and his entourage, the Nixon Task Force on the Americas, were aborted due to the threat of violent outbreaks planned largely by student activists. The list of countries in Asia, Africa, and Latin America in which student political activity has formed a major threat to the stability of the polity could be extended almost indefinitely.

Student conflict in the United States has only recently shown an intensity and scope that would resemble those events by students in certain developing nations as noted above. Nevertheless, there is a discernable pattern of student conflict activities dating back to the early 1930's. Heirich and Kaplan (1965) have documented what they believe to be four relatively distinct periods of student conflict over the span of the last forty years in the United States. Heirich and Kaplan illustrate the historical periods of student conflict with the events on the Berkeley campus. In the early thirties, the tenor of social life changed on the Berkeley campus. Prior to this time, football games and social events were the focus of collective energies. With the advent of the thirties, however, students became more concerned with the socio-political issues. It is perhaps surprising that with the trauma of the economic depression students did not engage themselves with the issues of New Deal economic management. Instead, students

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waged a protracted demonstration against the breakdown of international disarmament and the domestic approach to war. The period of 1941 through the late forties was marked by the absence of collective student activities of any kind. Campuses, it seemed, were drained of their surplus energies in order to meet the war effort and the subsequent post-war adjustments. The fifties was a period of resurgence of the frivolity and social hell-raising common to the thirties. This was the time when panty raids were an activity of national vogue. The fifties, it has been said, marked a "silent generation" but the argument here is that these years were only silent in the sense that rebellious activities were not directed toward the socio-political system, that is, the establishment. Apparently, students felt no need to involve themselves with substantive issues of social-political significance.

The end of the frivolous student events was clearly signaled at Berkeley in 1957 with the formation of TASC (Toward an Active Student Community). The reemergence of student interest in political action inevitably led to situations of student/administration conflict. The period beginning in 1957 was characterized by a highly politicized student subpopulation.

Very recently (1971-1972), there has been widespread doubt as to the possibility of future rebellious behavior by students; all this in response to the unpredicted lull of political activity in the 1970-1971 year. The implicit question is whether we were entering into a new and qualitatively different period of student consciousness. Newsweek (1971) called 1971 an "enigmatic" year noting that the frequency and intensity of campus distrubances had inexplicably

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declined. Careful reading of various polls and surveys (Playboy, 1971; Gallup, 1971 and 1972), however, indicates that the conditions that had fostered earlier disturbances persist and that latent conflict is as high as ever. Perhaps the lull reflects an alternative to the simple confrontation strategy being sought.[1] However, with the recent upswing of student activism that coincided with President Nixon's decision to increase the bombing and mining of Haiphong harbor, the argument for a new more tranquil period of student/administration interaction is considerably weakened.

It is established above that student/administration conflict can have great social significance. It is also true that this conflict can have particularly harsh consequences for individuals within the social system. A career may be threatened; personal resources of time and capital may be lost; and ties with family, friends, and colleagues may be strained as a consequence of the divisive issues central to the student/administration conflict. A particularly dramatic example is given by the personal effect felt by Vladimir Lenin. Character studies of Lenin describe the psychological trauma he suffered as a result of his older brother's death in a student clash with the Czar's army. At least one of these studies (Fuer, 1969) attributes Lenin's later activism to this major event in his developmental history. It is clear

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[1] Fuer has noted that the student movements of the past have relied almost solely on the confrontation strategy. Polarization, being an element of the confrontation strategy, prevented participative association with administrators. Within student syndicalism movements, however, there is the distinct tendency for students to become knowledgeable about the workings of the system that most intimately affect student affairs. Traditionally, this has been manifest in active participation in the internal governing bodies of the university.

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then that the study of student rebellion can have both social and psychological importance.

This study will focus upon rebellious activities which are observed within a closed system of dyadic interaction where the one party of the dyad is a student body and the other party of the dyad is an administrative body. The primary interest will be the intensity of cooperation/conflict manifest in the course of dyadic interaction. However, before one can fully appreciate the dynamics of dyadic interaction, it is necessary to elaborate the social issues that underlie the interaction. The following paragraphs categorize three prototypic issues of student/administration conflict.

Historically, one can distinguish three basic issues of student/administrator conflict. The issues relate to student syndicalism, socio-political association, and student liberties. The first issue is that of student self-interest or student syndicalism (Fuer, 1969).

> "Student syndicalism embraces the variety of student activities and organizations which are primarily devoted to promotion of student well-being, such as mutual aid, transportation, examination schedules, housing, and tuition. Student syndicalism may even emerge in demonstrations against the government, especially when the universities are state institutions. A student syndicate is, however, an example of studentism pure and simple; it is preoccupied with the normal interests of the student elite, and is devoid of the back-to-the-people motif. As such, it lacks essential psychological characteristics of student movements."

Unlike a student syndicalist movement, a student movement is characterized as follows (Fuer, 1969):

> "A body of students inspired by aims which they try to explicate in a political ideology, and moved by an emotional rebellion in which there is always present a disillusionment with and rejection of the values of the older generation. The members of a student movement have the conviction that their

> generation has a special historical mission to fulfill where the older generation, other elites, and other classes have failed. The inner dynamic of student movements leads them to 'politicalize' all the university's activities. To politicalize the university means more than having all students take intelligent, informed stands on political issues. What is sought, rather, is that every activity in the university be linked with, infused by, and subordinated to the alienated ideology of the student movement. The students' work, friendships, readings, play, pleasures, the theater, and concerts he attends must all be imbued somehow with the ethos of the student movement."

A student movement, then can take on issues that transcend strictly student self-interests. In particular, a closed system of dyadic conflict has the potentiality of incorporating external conflicts.

A second issue of conflict arises from socio-political associations of this type. Consider the illustrative case where students charge administrators with complicity with forces of war, e.g., the military-industrial complex. Students then demonstrate their opposition by carrying the flag of the National Liberation Front and thereby are displaying a spiritual association with revolutionary movements. By implication, the students cast university administrators as the "Yankee Imperialists." As a result, an external conflict, i.e., the Viet Nam War, has been brought within the closed dyadic system of student/administration conflict. Specifically, the status of ROTC, military research, and job recruiting have been imbued with a multiplicity of meanings and have, by association, become issues of administration/student conflict. Similarily, Berdyaev (1962) has noted that:

> "The Russian studentry at the turn of the century was imbued with this 'revolutionary asceticism.' In the United States, students in a populist enthusiasm would fancy themselves white Negroes, cultivate a speech and gait modeled on the Negro, walk

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> on picket lines clapping their hands and prancing in a way which seemed to them to fulfill this identification. In Russia, they would don workingmen's and peasants' clothes as part of an experience of transfiguration akin to that of the wearer of priestly vestments. Under ordinary circumstances, fashions diffuse downward from the upper to the lower classes -- in these circumstances, however, fashions were borrowed from the lower classes and diffuse to the upper."

Because a university is no longer to be regarded as removed from the larger society, it is natural that questions arise within the university that have implications beyond that immediate setting. Especially common are the issues relating to the constitutional liberties of students. As was the case at Berkeley and Columbia, students may want to be involved in collective secular activities. For a variety of reasons, administrators may choose to restrict this type of student activity. These opposing tactical positions have been a reoccurring source of contention between administration and students. For example, Fuer (1969) offers the following scenerio:

> "A compelling and discernible pattern runs through the repeated events of student protest. A typical student action might begin with a small political group advocating some particular political or social reform. At first, the majority of the students would be quite indifferent. Then, some episode of repression would take place; the authorities and police would deny the students the right of free association or use sheer physical violence against them. Thereupon, indignation against the elders would sweep the studentry. The minority political movement would become transformed into a majority generational uprising. Generational solidarity of the most primitive kind would then manifest itself; demands for students' rights and manifestoes of generational independence would come to the fore."

This passage describes a pattern of active conflict during the Russian Student Movement of 1905. The description, however, is hauntingly appropriate to more contemporary student activism, e.g., Berkeley

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Free Speech Movement. Furthermore, the 1964-65 disturbances on the Berkeley campus of the University of California seemed to have set the pace and defined the general style of the many such campus actions that were to follow throughout the country.

The thrust of this research project will be to investigate certain social psychological factors which underlie the behavior of students in conflict with administrators. The presumption is that those psychological factors operate in a predictable fashion and are of potential significance across a range of conflict situations. Crano (1971) has made the argument as follows:

> "Many social scientists have contended that large-scale social movements are basically ahistorical, and thus the study of any specific confrontation can offer little insight into any that might follow. In a certain limited sense, this assessment is correct, since the specific conditions, demands, and personalities that exist at one place and at one time will almost certainly not be repeated at other places or at other times. The psychological dynamics that seem characteristic of almost all confrontations in which the threat of violence exists, however, are quite consistent. This consistency, in turn, lends a certain 'sameness' to the general form of many demonstrations."

Because the Berkeley Free Speech Movement so clearly exemplifies in broad, general design the forces operating in a great proportion of campus confrontations, it will serve as a prototype for experimental simulation. Discussion of results will compare behaviors of student subjects in the laboratory and the actual behaviors of students at Berkeley.

The social ferment catalyzed by the Russian studentry culminated in a thorough-going national revolution, though the students were of lesser political significance in the later stages than the former stages of the revolutionary period. The final impact of the student activism

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This introduction has been based on the history and popular literature of student rebellion. This literature is often rich in content but unfortunately it is mostly void of theoretical underpinnings. The next chapter will evaluate the applicability of social science theory as a hueristic for the study of student/administration conflict.

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SELECTED LITERATURE AND THEORY

The question of why students rebel would appear to have many partial answers. This chapter will begin by considering a selective review of these partial explanations. Later, these partial answers will be interrelated and subsumed by a body of theory. To Goodman (1965) the reason for student rebellion was simple and obvious:

> "At present in the United States, students-middle class youth - are the major exploited class. The labor of intelligent youth is needed, and they are accordingly subjected to tight scheduling, speed-up, and other factory exploitative methods. Then it is not surprising if they organize their CIO. If is frivolous to tell them to go elsewhere if they don't like the rules, for they have no choice but to go to college, and one factory is like another."

Others have suggested that youth is simply predisposed to rebellion, i.e., that is is simply a consequence of incomplete socialization. Allport (1961) in analyzing the changes in personality that accompany "maturing," suggested that youth are inherently less able to handle ambiguity, to accept their weaknesses as well as strengths, tend to overreact to stimuli, and lack a high capacity for tolerance. Similarly, Weber (1946) suggested students hang on to idealistic beliefs longer than others. They tend to develop an ethic of "absolute ends" rather than of "responsibility." In addition, students find themselves in a marginal status role. Although physiologically mature, and often above the age legally defined as adult, students have been expected to refrain from full involvement in the adult world. Hence, the student who

leaves home to attend a university finds that he has actually entered a highly controlled situation, while many aspects of the society urge him to become independent (Lipset, 1971).

Apparent universality of differences between the old and the young common to student movements has been abstracted by Fuer (1969) as his central theoretic principle.

> "A generation in the sociological sense consists of persons in a common age group who in their formative years have known the same historical experiences, shared the same hopes and disappointments, and experienced a common disillusionment with respect to the elder age groups, toward whom their sense of opposition is defined."

Adopting a similar definition, Birnbaum (1969) notes that generational dissonance and revolt are not a perpetual social problem but assume acute forms only under conditions of rapid rates of social change that cause extreme differences in generational experiences. Uneven development is also a major factor in the development of dissonance where advanced ideas are combined with material backwardness or where egalitarian principles are disregarded in the operational pragmatism of bureaucratic functioning. When these conditions prevail, forces will lead to deauthorization of the status quo. In the terminology of Fuer, youth perceive the government of the old (gerontocracy) to be a failure. Through the student movement, youth seek to remove the illegitimate gerontocracy and replace it by a government of the young (juvenocracy). Legitimacy and authority are concepts which have been basic to the neo-Marxian theories (Weber, 1946; Dahrendorf, 1959). Brief elaboration of the literature relating to these concepts is included in Appendix D.

One can use an economic model (Hirschman, 1970) to exlain why students are prone to active conflict rather than passive disassociation

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with the university system. In his work, Hirschman has provided an elaboration of constructs that are applicable not only to the economic sector, but to noneconomic systems as well. Hirschman observes that any economic, social, or political system is subject to lapses from efficient, rational, law-abiding, virtuous, or otherwise functional behavior. A university is no exception. Persons learn to live with a certain amount of this disfunctional behavior and to manage its effect lest the misbehavior feed on itself and lead to general deterioration of the system.

Hirschman notes as a basic premise that deterioration in organizational performance may result from either or both of two conditions, as follows: a) from an adverse shift in supply and demand conditions while the willingness and ability of the firm to maximize profits are unimpaired; or b) from loss of maximizing aptitude or energy with supply and demand factors being unchanged. The argument advanced is that economists traditionally have attended only to the first condition, and the reversibility of changes in objective supply and demand conditions is held doubtful. The idea of a random and more or less easily "repairable lapse" linked with the second condition has been alien to economic reasoning.

Consider the case where a university is subject to deterioration for random causes which are neither so compelling nor so durable as to prevent a return to previous performance levels, provided administrators make appropriate adjustments. The deterioration will be reflected in an absolute or relative decline in the quality of services provided by the university; that is, larger classes, higher tuition, inadequate facilities, etc. The model assumes that the deterioration will activate a

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feedback loop which can operate in either of two modes, as follows: a) a student can withdraw from the university (this is the exit option); or b) a student can protest from within the university (this is the voice option). While the exit option might be effective as a feedback mechanism, there are external circumstances that mitigate against its use by students. For example, there is no sharp alternative to one university as all universities are relatively similar in structure and function. Further, there may be encumbrances that impede transfer from one university to another, for example, transfer of credits, inconvenience of moving, etc. At the same time, a university education is generally revered as the best means of personal advancement. Exit then is not a likely response to dissatisfaction with the university system. Since the exit option may be effectively foreclosed due to external constraints, students are likely to channel their responses through the second mode, the voice option. In this mode, students verbalize and act out their dissatisfaction within the university system. This type of behavior will constitute the basis for observation and empirical analyses to be done in a later section.

The literature shows the empirical analyses of student rebellion have been limited to correlational methods. Correlations between demographic variables (community and individual attributes) and participation in student disturbances have been explored by numerous researchers. It is not surprising really that this is so. Correlational studies are relatively easily done, but experimental study of complex social processes like student rebellion is an arduous task. The view here is that experimental studies are needed; nevertheless, it is worthwhile first to consider briefly the type of findings acquired through the correlational

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method. Later sections will focus on an experimental approach for research.

Keniston (1968) and Flacks (1967) have produced results showing that leftist students are largely the children of leftist or liberal parents. In the U.S., the bulk of the activism emerges from within the well-educated, affluent populations and particularly those engaged in intellectual and welfare occupations, and those having affiliation in progressive religious groups. There are also clear cut correlations between academic disciplines and political orientations. Students and faculty in the social sciences and humanities, and to a lesser extent the pure-theoretical fields, are more likely to be leftists than the more commercial, applied, and professional fields. When movements grow, however, they attract the support of population groups who are quite different from the early members (Lipset, 1971). This is reflected in decreased discriminability in correlations across demographic categories.

The Carnegie study found that the more selective the student body and the larger the institution, the more likely it was to have significant protest activity. The U.S. President's Commission (1970) report replicates this finding. Keniston and Lerner (1971) have theorized that size is a critical variable. As a consequence of sampling, greater size insures that more like-minded persons will be assembled. The grouping of these persons tends to create a mutually supportive social environment for what the majority of students might censure as deviant acts. This concept is analogous to the "critical mass" concept of nuclear physics. Also it has a certain face validity and does account for the correlation between size and the likelihood of protest activities. For a more complete review of correlational studies, see the

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McPhail (1971) has presented a critical review of the correlational literature including both student protest and civil disorder participation. McPhail finds that many of these studies have adopted some variation of the deprivation-frustration-aggression model.

McPhail shows that studies of this type are vulnerable to multiple confounds and have been criticized on those bases. The moderate and high association typically found between age, sex, ethnicity, educational level, and riot participation must be treated with caution. As McPhail (1971) has pointed out:

> "There is no compelling reason to accept the inference that persons are more impetuous because of their youth, more disenchanted because of their race, more daring because of their gender, or less rational because of their educational level. An equally plausible interpretation of these data is that such persons are simply more available for participation by virtue of the large amount of unscheduled or uncommitted time which results from being young, black, male, and without educational credentials."

Correlational studies have also tended to rely on insensitive and unreliable measures more out of expediency than design. Especially insensitive is the measure of participation. McPhail notes that a person is intermittently a participant and nonparticipant. Static indices that characterize a person as either a participant or a nonparticipant, however, cannot account for these dynamics of participation in a meaningful way. For dynamic investigation, one must devise a method of investigation in which time is a variable.

Whatever the factors that make students prone to rebellion, it is fairly certain that different administrative activities and different

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activities by peers within the social field evoke different intensities of student rebellion. The remainder of this chapter will focus upon substantive dimensions of this type. The guiding principle of the review will be to develop a theoretical base for the subsequent experimental simulation of student/administrator conflict. This study will investigate the multiple contingencies of social interaction as a function of five independent variables. Two of the independent factors simulate dimensions of university management strategy in a field of conflict. The first is the participative/authoritative dimension of decision structure set forth by administrative activities. The second dimension simulates the degree to which administration displays cooperation/conflict with students. A third factor specifies an important characteristic of the social field. Specifically, it simulates the degree to which a students' peers are volital and politicized and display cooperation/conflict with administrators. A fourth factor is time which is implicit in all dynamic simulation processes. The fifth factor represents the target categories that are associated with the units of interaction. These factors will constitute the ingredients of the subsequent research experimental design. The next section will examine the theoretical bases of these social dimensions.

Theory

Two theories are judged to be particularly useful in an investigation of interactive cooperation/conflict. First, exchange theory provides a structure for social interaction. It assumes that interactive behavior is a function of social reward. An important dimension of social reward is given by the implicit cooperation/conflict of

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interaction events. Second, organization theory emphasizes certain characteristics of social structure within a task group. Organizational characteristics define a social structure and task orientation for interactive behaviors. An important set of organizational characteristics is given by the dimension of participative/authoritative decision structure. The dimensions of cooperation/conflict and participative/authoritative interaction are conceptually independent. The former derives from exchange theory and accounts for a critical facet of social interaction. The latter derives from organizational theory and accounts for the mediating effects of social structure on social exchange.

Exchange Theory. The theory of social exchange assumes that men enter into associations with the expectation that the association will prove to be rewarding. The reward may be either intrinsic or extrinsic to the association itself. Similarly, the reward may be valued along various dimensions. As noted by Blau (1964), a paradox of social exchange is that it serves not only to establish sentiment bonds between peers but also to create status differences between men. One might assume that the exchange function operates with equal strength in the maintenance of an old relationship as in the build up of a new relationship. Given prior relational bonds between administrators and students, the interest here is focused primarily on such maintenance functions. Equity in social exchange requires that rewards bestowed upon one party by another party be reciprocated (Gouldner, 1963).

Social exchange between collectives as well as persons can be examined. The present research, for example, studies the interactions between a student coalition and an administrative coalition in a situa-

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tion where these coalitions have incompatible goal orientations. Blau (1964) suggests that differentiation of power in a system of collectives gives rise to higher order exchange functions. These higher order exchanges are understood to superimpose upon the lower order exchanges of interpersonal relations.

In a university the institutionalized hierarchy of authority is such that an administration unit has greater authority than a student unit. Given this prior condition exchange theory predicts that the fair exercise of power by a ruling coalition (administration) will elicit social approval by the subordinated coalition (students), whereas unfair exercise of power will evoke social disapproval. The social forces set into motion by this exchange lead to legitimation and organization on the one hand and to opposition and student rebellion on the other.

Exchange theory is not delimited by its principal advocates, but one can conceive of situations where it is likely that the predictions based upon the simple exchange function of reciprocity would be refuted. In the case of gross exploitation of a subordinant coalition, a norm of reciprocity would predict active resistance, rebellion or retaliation. While a subordinated collective may be predisposed to behave in a rebellious manner, the superior power of the ruling coalition may be sufficient to deter the occurrence of those activities. Deterrence theory may then better account for the patterns of social interaction given a gross imbalance in power distributions.

Deterrence theory is usually applied in the context of international decision making, given the ominous presence of nuclear weapons technology. Nevertheless, it is conceivable that university

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administrators have access to forces that would dissuade students from certain forms of social interaction. Brody (1960) is one of many who have explored deterrence theory in detail. From his and other empirical studies on foreign policy, doubt has arisen about the validity of the deterrence model (Snyder & Paige, 1958; Holsti, 1962). Despite the lack of social scientific confirmation of the major premise on which elemental deterrence theory is based, there is widespread a priori acceptance of its truth. Many university administrators, as documented by the President's Commission Report on Campus Unrest, have behaved in such a way that one would presume they believed in the deterrence strategy. Subsequent research will offer further indication of the utility of the deterrence explanation versus the social exchange explanation.

Argyle (1969) and others, Gestaltists, have judged the exchange model to be inadequate because, "it fails to take account of the purposive sequences of social interaction." If, however, one can assume theoretic linkages between cognitive states and behavioral states then cognitive theory will augment the otherwise purely behavioral theory of social exchange. To this point, Collins (1969) has provided a set of assumptions that in large part bridge the cognitive and behavioral domains. He notes that in the cognitive domain, the simplest case of social psychological equilibrium is represented by reciprocity of sentiment relationships between person, P, and other person, O. Collins argues that positive sentiment by P towards O leads to activities by P that are perceived to be rewarding to O. As a result, O will have reinforced positive evaluation of P which will become internalized in the form of positive sentiment toward P.

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Completing the cycle, positive sentiment for P by O will be actualized by O in behavior rewarding to P. Iteration of the cognitive-behavioral-cognitive cycle leads to both cognitive restructuring and behavior modification. Through iterated interactions, interdependencies between cognitive elements and behavioral elements settle into a structural relationship of least dissonance. The question of primacy of behaviors or cognitions is thus superceded by structural interdependencies.[2]

The concept of legitimacy serves as a common link between the domain of exchange theory and the domain of organization theory (Appendix D). Gurr (1970) states a regime (administration) is legitimate to the extent that citizens, students, faculty, and other university personnel regard it as proper and deserving of support. Similarly, exchange theory postulates that behaviors by a ruling coalition will elicit social approval in a subordinant coalition if those behaviors are perceived to be legitimate. There is evidence to suggest that perceptions of legitimacy are affected significantly by a factor of decision structure irrespective of equity by which the ruling coalition operates. Pastore (1952) found that when subjects thought that a frustration was reasonable or justifiable, they gave fewer aggressive responses to it than when they perceived it as arbitrary. Cohen (1955) has shown that arbitrary decisions are seen to be less legitimate and elicit less obedience than do nonarbitrary decisions.

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[2]Reciprocity represents a special case of balance for a system of two units. Balance for a system of N units is represented by conformance to a product-rule interaction matrix structure. The extent of imbalance can be measured by the Abelson-Rosenberg index (1958).

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One might then surmise that in an authoritative system where workers or students are removed from the decision process, the final decision may appear arbitrary for the simple reason that one would not be cognizant of all the input and optimizing criteria employed in decision making. Even in the case of a perfectly rational and equitable decision, the decision might provoke rebellion if the underlying rationality and equity are hidden within a closed decision structure. Indirect support for this sort of participative/authoritative effect was found by Raven and French (1958). They found that support for leaders is directly related to feelings of legitimacy and the intervening process variable of democratic/participative ascendency to leadership. The idea that organizational decision structure itself is a critical factor is, therefore, worthy of study. We proceed with full exposition of the relationship between management decision structures and associated tendencies of organization conflict.

Organization Theory. Administrators of a university function as managers of a large nonprofit organization. Therefore, it will be useful to consider another body of literature that falls under the ruberic, organization theory. Organization theory is a term broad enough to encompass the scientific contributions of social psychologists, as well as the research efforts of those within the domain of business administration. The substance of organization theory may be conceptually subdivided into its two major areas of interest. They are design and administrative functions and behavioral, social psychological functions. Design and administrative interests of the organization theorists relate to the structural qualities of the business firm. For example, line and staff relationships, distribution

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of authority and responsibility, the flow of communications, etc., are structural characteristics. These characteristics have largely been the concerns of the classical organization theorists. Behavioral social psychological interests of organization theorists relate to the human factors that impinge upon an individual in a work environment. Clearly, this facet of organization theory is augmented by social psychological research. The human relations orientation is distinguished by its primary emphasis on such factors as leadership, movivation, social interaction, and development of social standards (norms). These are all social psychological factors which have obvious application in the field of organization management. Consideration of several different micro-theories of management will serve to explicate the role of administrative authority relationships with students.

The classical theory of management (sometimes called Theory X) is represented by the works of Taylor (1911) and Fayol (1949). In a university setting, the theory assumes students dislike scholastic work and must be coerced, controlled, and directed toward organizational goals. Furthermore, students are assumed to prefer to be treated this was so they can avoid responsibility. In accordance with this theoretical position, administrators should provide a set of formal rules, procedures, and control systems so specific and so comprehensive that role ambiguity is entirely eliminated. This theory emphasizes the need for well-established lines of authority and clearly defined expectations.

The classical theory of management has relatively neglected the influence of man, his personality, and his interaction with others in the work setting. Recognition of this neglected aspect of theory has

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prompted the consideration of alternative theoretical explanations. The principal alternative hypothesis to be presented has focused upon the human factors that might intervene in the structural system of the organization and thereby mitigate against the viability of the formal organizational structure. This alternative theory will be referred to as the human relations theory (or Theory Y). The assumptions that underlie human relations theory as might be expected diverge greatly from those advanced for classical organization theory. The human relations approach assumes that most students have an intrinsic interest in their work, desire to be self-directing, desire to be responsible, and want to be creative (Roethlisberger & Dickson, 1939). Under this set of assumptions, administrators are advised to minimize formal rules, and maintain a loose and flexible operating system. Attention here is placed on the "informal organization" of social interaction and motivation. This theory stresses the desirability of involving students in organizational decision making. The next step in the evolution of organization theory is distinguished by its attempt to integrate factors intrinsic to the classical theory and the human relations theory.

The systems approach has given direction to research and development in the field of organization theory and is now a dominant academic force. Specifically, emphasis is now being directed toward the explication of organizational subsystems and the investigation of the manner in which subsystems interact with one another. This effort is elaborated in the next section.

Morse and Lorsch (1970) reviewed the literature on Theory X and Theory Y and provided empirical evaluations of the two opposing

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theories. This contribution signaled a new purpose for organization theorists, namely to study the "fit" between task structure and people. In sum, the works of these researchers and others (Lawrence & Lorsch, 1965; Woodward, 1965; and Perrow, 1970) suggest a new set of basic assumptions which they claim move beyond Theory Y to what they term "contingency theory." These theoretical assumptions emphasize that the appropriate pattern of organization is contingent on the nature of the work to be done and on the particular needs of the people involved. The consistent findings of contingent theory studies show the following: a) Highly routinized and predictable tasks are optimized under mangement of highly structured and formal practices because in these situations behavior must be ridgidly defined and controlled around the automated production line; b) In an unpredictable, dynamic environment demanding adjustment and flexibility, task productivity is optimized by unstructured procedures. In summary, contingency theory argues against the idea of a universal set of principles for organization management. It represents a further achievement in the development of a viable theory of organization.

Systems theory (March and Simon, 1958) has been proposed as a means by which the entire organization might be described, including both the classical and human systems. Drawing upon various academic disciplines, the systems theorists have sought to describe authority systems, communications systems, and energy systems as structural environments within which informal human social interaction systems and motivation systems operate. The primary contribution of systems theory has been to demonstrate the complexity of an organizational system, and that the organizational system is itself the product of

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Illustrative of the work of the systems theorists are the seminal works of Likert (1961, 1967), who was principally concerned with the interaction of the subsystem of administrative decision making and motivation. This interaction is also a critical factor in the current research project.

Equifinality theory (Katz and Kahn, 1966) is in certain respects a logical extention of contingency theory. Equifinality implies that for any given organization in any given organizational environment, there may be (and probably are) a number of equally appropriate ways to achieve a given end. Equifinality suggest that there may be no one best way to organize even for a particular set of contingencies. From this perspective, contingency theory is only of use in that it identifies a set of appropriate but not necessarily optimal organizational responses to a particular set of situational contingencies. Equifinality theory contrasts more sharply with the classical and human relations theorists who have sought universal principles or rules which would help organizations arrive at the one best way to organize for any purpose. Equifinality theory is insightful and probably the most accurate statement of organization processes yet made.

In summary, the union of exchange theory and organization theory provides a basis both for tests of specific tenets of social theory and for exploration of social relations manifested as organizational conflict. Neither theory is reductionistic, but to the contrary, each provides for and in fact encourage investigation of the complexities and multiple contingencies of dynamic social interaction.

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METHOD

The review above has shown that current social exchange theory and organization theory call for consideration of multiple social and situational contingencies in the analysis of behavioral interactions. There are, however, great difficulties in formulation of a research design that satisfies this objective. One is confronted with a basic problem of research, namely, how to study the behavior of a complex social system in a way that provides for internal validity of causal inferences and at the same time maximize external validity for real world environments. Reductionistic experimentation insures internal validity by experimenter control but is inadequate for the study of multiple contingencies as the set of social and situational factors is severely restricted. Survey investigation does tap real world events but not in a way that permits experimental control over situational contingencies. The method of computer simulation can deal with the complexities that might arise in the study of a complex social system; computer models, however, do not lend themselves well to external validation. These comments are not intended to devalue these various methodologies, but rather to call attention to their inherent limitations. I endorse the concept of multioperationalism (Campbell, 1969; Crano & Brewer, in press), i.e, the idea of convergent investigations employing various independent methodologies. This research, however, will present a relatively new experimental simulation method, which is particularly appropriate to the study of multiple

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contingencies of complex social systems. This method circumvents or minimizes most of the methodological problems associated with pure experimental, field, and simulation methods. The experimental simulation method brings together the positive qualities of experimenter control and multivariate design.

Experimental simulation is a method that has recently been developed by social psychologists at Princeton (Streufert, Clardy, Driver, Karlins, Schroder, and Suedfeld, 1965). The intent has been to create an elaborate laboratory task situation that approximates certain complexities of a real world environment and to superimpose a parametric experimental treatment and control with enough finesse so as not to disturb the phenomenon under investigation. Those many which contribute to laboratory reality but not the explicit focus of experimental investigation are held constant. The ultimate advantage of the experimental simulation method is that experimental results should have greater applicability in complex real world environments. Before presentation of the procedure for experimental simulation, it is necessary to operationalize some terms.

To be useful in social science, theories require a scheme by which major theoretical tenets may be operationalized. For the cases of exchange theory and organization theory, what is needed is a method for quantifying social interaction. Bales (1950) has contributed to this need through the development of a scheme by which types of social exchanges may be classified. The Bales coding scheme permits the testing of many social psychological hypotheses relating to forms of interaction and how they are bound to repetitive cycles of action and reaction. The Bales sytem, however, is relatively content free and as

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such cannot capture many substantive factors that may effect the nature of interaction within the social system. To describe the substantive qualities of interaction, it is necessary to develop rules for the disaggregation of interaction discourse into single interaction events and to scale the interaction events as independent conceptual units.

Works by Azar (1970) and McClelland (1967) serve as preliminary models for this type of coding of social interactions. Operationally, the task of coding involves the transformation of interaction discourse into discrete units of activity in a form amenable to empirical measurement and analyses. We will define the specific unit of interaction that will be employed as a part of the current research; it is the interaction event.

Definitions

The University community (organization) can be formally described as an interacting system. Within the university system, there is an institutionalized hierarchy of authority such that an administration unit has greater authority than a student unit. An event is a behavior within the system that describes an activity by an actor directed toward a target that is qualified with respect to issue-area and date (Azar, 1970). Useful notation for this system is given by Phillips and Connor, (1970). If S designates a set of social units capable of interaction, then S is called the actor set. Similarily, T designates the target set, the set of social units toward whom the activity can be directed; and A designates the set of actions that can be initiated by a member of S toward a member of T. The event set (E) is defined by the cartesian product (S X A X T). If the source and target sets are restricted to the same two members, e.g.,

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Rebellion will be viewed as a specific behavioral form of the subsuming concept of conflict (See Appendix A). Rebellion is further delineated by its conceptual intersection with the concept, political violence (See Appendix C). In this work, rebellion will be defined as a behavioral process within a system characterized by interaction activities of implicit conflict directed by an actor of lesser authority toward a target of greater authority.

Coding of Interaction Events

McClelland (1967) first proposed to "monitor" the exchange and flow of official acts between all governments in the international system. As conceived by McClelland, the task of monitoring involved the collecting, coding, and computer-banking of events as reported in selected popular media. Azar (1970) adopted the basic ingredients of events monitoring as set forth by McClelland but has concentrated his effort within an international subsystem, the Middle East. Within the Middle Eastern international subsystem, Azar has coded news of directed behavior for both domestic and international events. While the present task of coding definitely has been in the tradition of Azar (1970) and McClelland (1967), the situation which is strictly domestic-organizational has demanded an independent effort that has resulted in some revision of the coding procedure.

Collecting data from primary sources is an arduous task. Fortunately, however, there are agencies that devote time and expertise to this task. Hopefully, a social scientist can rely on secondary sources for data and thereby the task of monitoring interactions

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reduces to coding and computer-banking. For example, Azar (1970) began with a set of 13 secondary data sources, (abstracts, journals, and indices). Through empirical techniques, Azar, concluded that a subset of two sources provided nearly the same coverage as the total set of 13. The two superior sources in the reduced set were the New York Times Index and the Middle East Journal.

An early consideration in the present research was to locate an adequate source on student/administration interaction. Interaction events that sociometrically describe activities on the Berkeley campus during the Free Speech Movement (FSM) of 1964 have been collected. The staff of the California Monthly compiled news briefs that appeared in a sample of primary sources throughout the Bay Area. The California Monthly is actually a secondary source. From this secondary source, interaction events have been systematically extracted. These data give comprehensive coverage of interactions between actors within the University system for a four month period of escalation and deescalation of hostilities (Sept. 10, 1964 - Jan. 10, 1965).

The content of the news briefs were systematically recorded in interaction event format. In the case of a simple news report in active tense, coding corresponds to simple grammatical structure. The subject corresponds to the actor category, verb to the activity, direct object to the target, and residual components to the issue-area, (Appendix E).

More typically, however, news briefs do not appear to be so isomorphically related to our operational definitions of an interaction event. Numerous problems arise in the process of forcing free text to the constraints of the operational definition above. The

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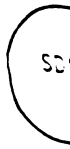

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Coding E

overriding consideration is to capture the essence of the reported activity as close as possible to the original semantics. Journalistic statements that in complex form embody more than a single directed activity are disaggregated into discrete events. Consider the following report: "The Students for a Democratic Society (SDS) have begun a picket of the administration building to protest administration suspension of student Free Speech leaders." This news report includes two types of activities and must, therefore, be disaggregated and coded separately for each one. The primary activity is the one of the SDS picketing against the administration. A secondary activity is implied; it is the SDS picketing in support of the Free Speech leaders. The set of interaction events can be represented in a

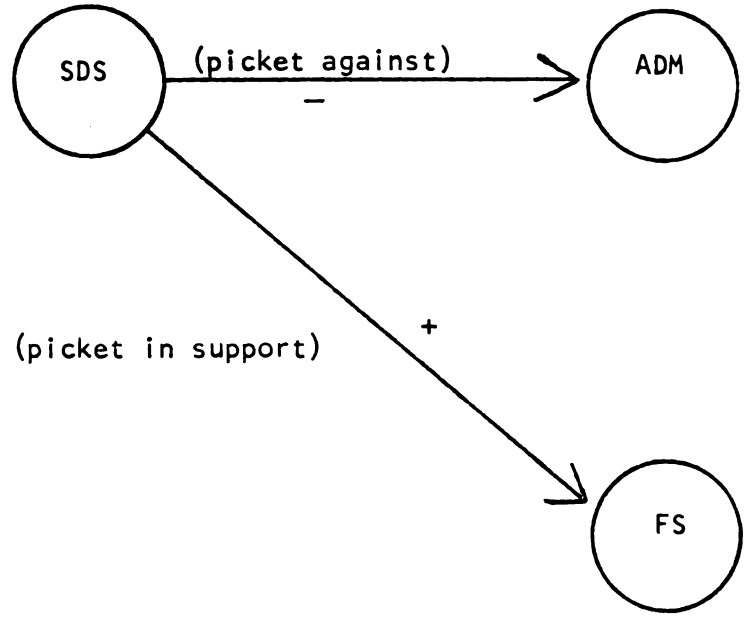

Figure 1

Coding Events: Disaggregation of Primary and Secondary (Implied) Event Targets

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directed diagram (Figure 1). These and related considerations necessitate elaborate rules that describe the exact process by which textual data are transformed for experimental purposes. Such rules are presented in the coding and scaling manual that has been developed as a part of the current research project (See Appendix E). Though coding is a complex task, trained coders operating in accordance with the stated rules demonstrate a high degree of intercoder reliability. The result of these coding efforts is the creation of a set of 754 interaction events including an actor set = 97.

Scaling of Interaction Events

Once in coded form, the implicit meanings of an interaction event can be measured. Scaling is the means by which data are measured along some dimension or set of dimensions. In the present context, scaling procedures will be employed that measure coded interaction events on a dimension of decision structure (participative/authoritative) and a dimension of social exchange (cooperation/conflict). First we will consider literature and theory relevant to each of these two dimensions of interaction. A synthesis of this literature and theory will culminate in the substantive description of each scale. Later each scale will be subject to independent validation procedures.

Participative/Authoritative Scale. Likert was principally concerned with the interaction of the subsystem of administrative decision making and motivation. This interaction is also a critical factor in the current research project. Likert has substantively distinguished four kinds of systems of administration. An authoritarian organization, whether exploitative or benevolent, is one in which both broad policy and specific decisions are made almost

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exclusively at the upper administrative levels. In an exploitative-authoritarian system, the administration is solely concerned with the welfare of the organization. In a benevolent-authoritarian system, the administration gratuitously concerns itself in a paternalistic manner with the welfare of its members. Two other systems are the consultative system and the participative system. In the consulting system, the ideas of those individuals who will be affected by an imminent policy decision are ascertained prior to the setting of that policy. However, the final decision is ultimately made in upper administrative levels. In this regard, a consultive system has authoritarian overtones. In the participative system, the guiding principle for decision making is that decisions be made by those individuals in the organization who are directly affected by them. In a participating group, decision making is widely done throughout the organization, although well integrated through linking processes provided by overlapping groups. Decentralization with integration is the key to a participating group organization. Although Likert(1967) intended these four systems to be qualitatively different, it would appear that these systems might be ordered along a single dimension. The four systems described by Likert imply an order along a dimension of participative/authoritative decision structure. The participative/authoritative scale underlying Likert's four organizational systems does not include a mid-point or zero point. It is fairly clear, however, that the exploitative and benevolent authoritarian systems tend to designate degrees of one polar condition (authoritative) and the consultative and participative systems designate degrees of the other polar condition (participative). A null level for this dimension

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can be inserted inbetween these levels; it in essence marks a symmetrical bisection of the dimension. Events that are ambiguous or indeterminant on this dimension can be given a zero weight by assignment of this null level. Specific scale descriptors are as follows: scale value 1 = exploitative authoritarian; scale value 2 = benevolent authoritarian; scale value 3 = neither authoritarian or participative; scale value 4 = consultative; and scale value 5 = participative.

Cooperative/Conflictive Scale. The dimension of cooperation/conflict has been given some treatment in the literature in which various substantive discriminations of levels along this dimension have been made. Virtually all scaling models have distinguished between verbal and physical activities showing cooperation/conflict. Verbal categories are considered to be of lesser intensity than physical categories. Within this dichotomy, finer discriminations can be made. McClelland discriminates a total of 22 levels and Azar finds 13 levels of cooperation/conflict. The present research discriminates 7 levels of conflict. While the scale is perhaps very insensitive to gradations of conflict, it is at the same time highly reliable. Within the range of verbal activities, we suggest two levels. A null level of cooperation/conflict is represented by relatively objective statements. A low intensity level is given to events clearly loading on the cooperation/conflict dimension. Within the physical range of activities a discrimincation is made between legal and illegal forms of cooperation/conflict. It would seem that students are particularly adept at drawing the line between legal and illegal strategies of confrontation.

From this synthesis of prior literature, one can explicate a

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symmetrical scale of cooperation/conflict. Scale descriptors on a symmetrical 7-point scale are as follows: 1 = extra-legal support and cooperation; 2 = physical action of cooperation; 3 = verbal statement of cooperation; 4 = neutral cooperation/conflict; 5 = verbal conflict; 6 = active conflict; and 7 = extra-legal conflict. (See Appendix E for complete exposition of the scaling procedures.)

Validation of Scales

The scales developed above have face validity, that is, they appear reasonable given the knowledge we have about the dimensions. It is necessary, nevertheless, to validate these dimensions on an independent sample of naive scalers. If the theoretic scales prove to account satisfactorily for the perceptions of naive subjects, they can be used as independent measures in experimental simulation.

A sample of students (N = 89) was asked to give meaning to a sample (N = 79) of the real Berkeley interaction events through the semantic differential scaling procedure (Osgood, 1958). The sample of events was selected so as to give uniform representation to all levels and interactions between levels on each of the theoretically derived scales (Appendix F). The whole sample of events was composed of two subsamples distinguished by actor designations. Subsample A defined all events directed by an administrative actor toward a student target, and subsample B defined those events directed by students toward administrators. The events of subsample A were scaled independently on each of the two experimental dimensions that apply to administrative activities. The events of subsample B in the same way were scaled along the dimension that applies to student activities.

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orthogonality between the participative/authoritative and cooperative/conflictive scales. Each event was viewed in its entirety as a concept. Subjects are given only polar descriptors and asked to impart meaning to levels within the polar extremes. The interest here is to test the degree of correspondence between the meaning given to the scale levels by naive subjects and the meaning prescribed in theory.

Data derived from the independent scaling efforts of naive subjects and trained experimenters were subject to correlational analyses. Data from the events of subsample A provided a measure of students' perceptions of events which are directed by administration toward students and which were implicitly cooperative/conflictive and participative/authoritative. Correlations between scale values given by naive subjects and those given by trained experimenters were calculated across all events of subsample A. This is actually a Q correlational analysis, i.e., correlations represent covariances between subjects rather than between events. The correlation between each naive subject and the trained experimenter provided a measure for the extent to which that naive subject's perceptions could be explained in terms of the theoretically derived scales. The results of analysis show a mean correlation coefficient of .820 across all subjects on the scale of event cooperation/conflict. The result signifies that $(.820)^2$ or about 65% of the variance in subjects' judgments of cooperation/conflict can be predicted from the simple independent measure of cooperation/conflict. Furthermore, the scale is consistently predictive for individuals within the sample of naive scalers as the standard deviation of the correlation mean was only .054. Apparently the predictions

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Explanation of subjects' perceptions on the scale of participative/authoritative decision structure was somewhat less successful. The average correlation across subjects was .620 and the standard deviation of this correlation mean was .109. This result means that $(.620)^2$ or about 37% of subject variance in perception of the participative/authoritative qualities of events are predictable from the single independent measure. While this dimension is less predictable here than was the dimension of cooperation/conflict, it is still sufficiently predictable and of such theoretical interest to warrant its further use in experimental research. Further, it is possible that error variance derives not from the inadequacies of the scale so much as the experimental situation that asks subjects to do something that is quite unnatural, i.e., to scale interaction events along a single dimension rather than what is more natural to form a judgment based upon multidimensional considerations. Indication of this effect is found in a slight but consistent association between the two scales of events analysis. While the events sample had been constructed so as to represent equally all scale levels of one scale within all scale levels of the other scale and thereby maximize scale orthogonality, an average correlation of -.162 was found between scales across all subjects and the standard deviation around the mean was .109.

The above results give confidence that we can account for student subjects' perceptions of events directed by administrators toward

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students along the two dimensions of cooperation/conflict and participative/authoritative decision structures. Being able to account for perceptions will make it possible for us in a later section to manipulate experimentally perceptions along these dimensions. It is of experimental importance and theoretical interest to establish empirically that the same scale of cooperation/conflict which is predictive of administrative activities toward students (subsample A) is also predictive of events representing activities directed by students toward administrators (subsample B). Results of analysis confirm that the same theoretically derived scale of cooperation/conflict is predictive of events in both subsample A and subsample B. In the latter case, a mean correlation was .812 and a standard deviation .087 for naive subjects with trained experimenters. This finding will allow for the explanation and control of interaction events originating with students and directed toward administrators along the dimension of cooperation/conflict. This result will have important experimental consequences not only for independent manipulation of perceptions of events associated with student peers but also for quantifying the major dependent variable of subject (student) cooperation/conflict with various targets. In conclusion, both scales are judged to account satisfactorily for perceptions of a subject population as a whole and beyond that to account satisfactorily for the vast majority of individuals that compose the population. With this degree of control over how events will be perceived, one can proceed with an experimental simulation study of social interaction in which independent and dependent measures are operationalized by scaled events data. Given the small between subject variation in the perception of events,

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Apparatus

The standard language laboratory is well suited for the communication control system that will be required for this experimental simulation, and thus for our purposes became the behavioral laboratory (See Figure 2). The laboratory booths are equipped with both transmitting and receiving devices which, in the experimental task, are used to transmit interaction events (messages, announcements, questions, behavioral intentions). A subject is free to initiate a message toward either one or both of his teammates or his collective opponents. Subjects understand that all messages are to be transmitted to and then relayed by switchboard operators (experimenters) in the language laboratory control station. (See Figure 3 for pictures of the laboratory booths and control station.)

Experimenters

The subsequent experimental simulation requires a team of five trained experimenters. This includes two switchboard operators (senders), two switchboard assistants (coders), and one courier. The experimenters will play a critical role. They must generate all messages sent to subjects and they must record all messages sent from subjects.

Experimenters were recruited from a senior level social psychology course. They were promised that if selected they would gain valuable experience in professional research and at the same time earn three credits in an undergraduate research course (Psy 490). From 28 volunteers, ten were selected. The criterion for selection were grade

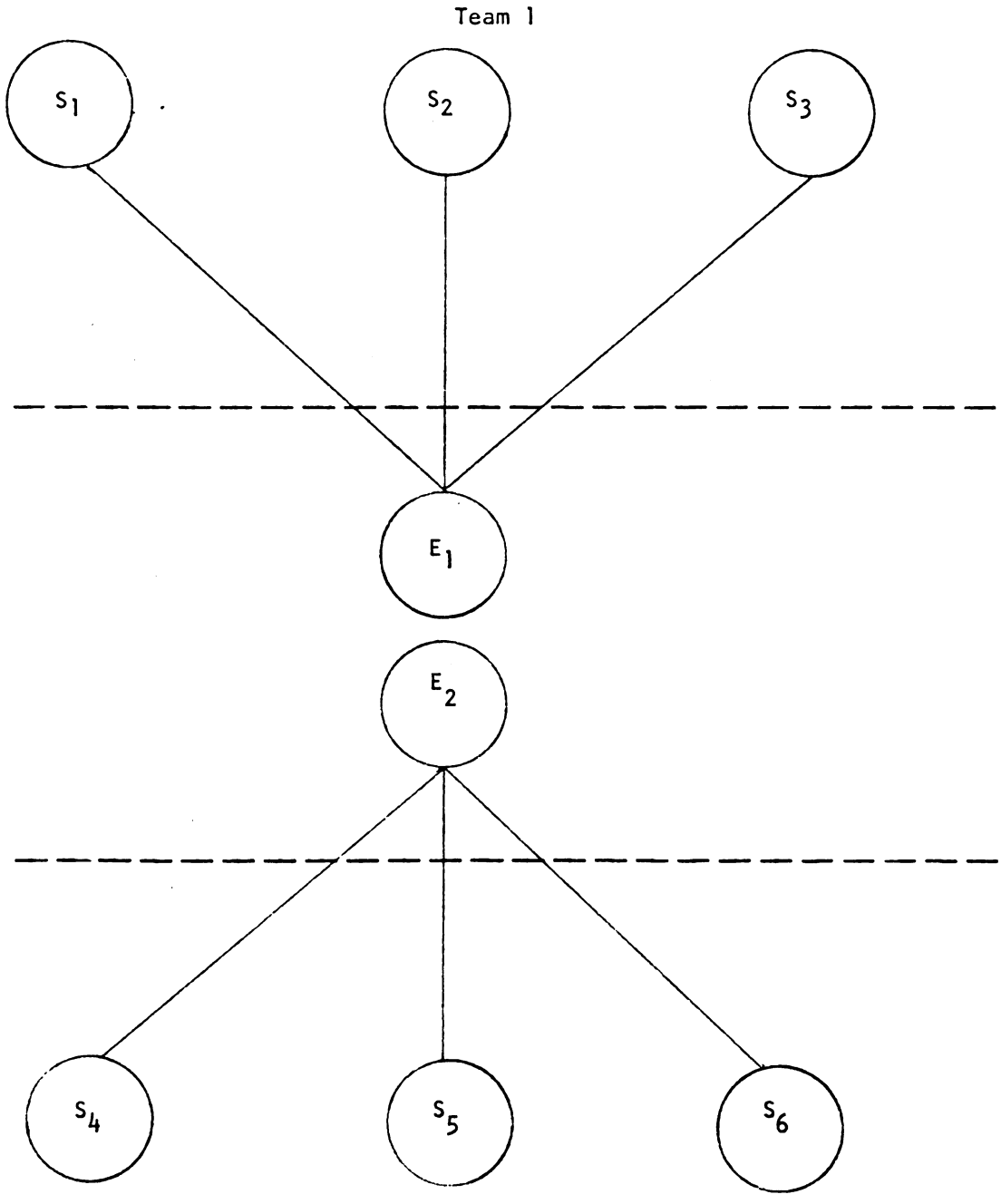

Figure 2

Communication Control System

Experimenter Control Station

Subject Communication Booth

Figure 3

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point average, oral skills exhibited in the interview, availability and subjective judgments pertaining to interviewee's interest, maturity, and ability to do the job. The ten, six males and four females, were assembled twice for a two hour block of training.

Extensive instruction for experimenters was given to insure a high level of precision and uniformity in experimenter control. Beyond instruction, experimenters were given a practicum in laboratory simulation procedures. In the course of the training, several experimenters gravitated to a position of relative superiority in mastery of both the coding/scaling procedures and the logistic demands of the communication system. All experimenters performed well, but four males out of the eight experimenters excelled. Given the experimental demand on the switchboard operators, it was important to recognize the talents of these few, and channel them into the more demanding role. Other experimenters were assigned to the important but less demanding roles of coders and couriers. Appendix G presents a more detailed description of the procedures for training and empirically evaluating experimenters.

Subjects

Subjects (N = 72) were recruited by telephone and by sign-up sheets for the experimental simulation. No special requirements for participation were needed except that the subjects be male and unexperienced with experimental paradigms of cooperation/conflict. The experiment was advertised as a "Simulation of Student/Administration Cooperation/Conflict." This title was intended to attract persons who were interested and perhaps experienced in student/administration confrontation. If the title has this effect, then the sample will more closely approximate that subset of the total university population that is

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inclined to participate in confrontation activities than would a random sample. The motivations for volunteering were mixed with some participating for money at the rate of $2.00 per hour, and others participating for psychology credits at the rate of 2 credits per hour. Upon empirical examination, however, there were indications that whatever motivations had governed a subject's decision to volunteer for the experiment were overrided by intrinsic motivations once the simulation was underway. This result, as well as others descriptive of the demographic constitution of the experimental sample, are presented in Appendix M. In general, these results show the success of recruitment and sampling procedures. The experimental population was of a constituency and motivational set similar to student populations documented as having participated in real instances of student/administration conflict.

Procedure

Six subjects were schedule to meet outside the laboratory. Upon arrival, the subjects were randomly assigned to one of two 3-person teams. Conscious of their team assignments (Team 1 or Team 2), individual subjects were ushered to separate laboratory booths. Figure 2 shows that the members of one team were all seated in the same general section of the laboratory and members of the opposing team were seated in the comparable positions on the other side of the communication control station.

Once isolated in the laboratory booths, all subjects were given a normative form of the Edwards Personality Preference Schedule (EPPS). The EPPS is a self-administered measure of personality characteristics. The standard EPPS is a valuable instrument but it is flawed by the

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measurement artifact of ipsativity. The normative EPPS maintains the basic items of the EPPS but responses are given in a Likert scale format rather than a forced choice format. The problems associated with forced choice (ipsativity) are therefore circumvented.

The EPPS was included as a part of the experimental procedure for the purpose of collecting data that could be used to explore the significance of covariation between personality scales and manifest interaction behaviors. These analyses, however, are peripheral to this thesis and will not be discussed as part of the research.

Having completed the EPPS, subjects were provided with a simulation manual entitled, The University Game (Appendix H). Subjects were given approximately 15 minutes to study this simulation manual. The contents of the manual were designed to do two things: a) to familiarize the subjects with the roles and rudiments of the experimental simulation; and b) to stimulate the interest and involvement of the subjects in the situation at hand. The simulation manual was prepared so that actors and issues would roughly parallel those at Berkeley. If the manual was successful, then one would expect subjects to display passions similar to those seen at Berkeley. Consequently, subjects should be relatively hostile toward administration actors and relatively supportive of student actors.

After the subjects had finished reading the simulation manual, a presimulation questionnaire was administered. The questionnaire included items about personnel, groups, and issues at Franklin State University and thereby provided data on the initial state of subjects having received the same instructions and the same preliminary simulation material. Assessment of these initial state attitudes will serve

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as a control state against which the effects of subsequent experimental manipulations can be evaluated. Appendix M presents the results of this analysis in detail. Because these results suggest an isomorphic relation between the initial stage of the Berkeley conflict and the initial stage of laboratory simulation, the subsequent events from the laboratory and from the Berkeley campus are amenable to direct comparisons (Appendix I).

Immediately after completion of the presimulation questionnaire, the experimenters presented a standard set of oral instructions (Appendix J). Oral instructions reemphasized some of the most important points presented in the simulation manual. In addition, the oral instructions detailed the use of the laboratory communication equipment and how messages would be delivered and received. Both the oral instructions and the simulation manual led each subject to believe that he was to function as one of a team of 3 student leaders of the Student Coalition at Franklin State University. Conversely, each group was lead to believe that the persons comprising the other team would function as administrative officials of President Raswell's Task Force on Student Unrest. All subjects were lead to believe they were peer C and had teammates who were peer A and peer B. The problem as it was presented to the experimental groups was that a conflict of interests had developed over the rights of students with regard to use of University facilities to promote political and social ideologies. Students were invited to engage in extemporaneous interaction with their team members and opposition and thereby exhibit their own personal behavioral tendencies.

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Experimental Simulation. After all the above preparations were completed, a subject was ready to begin the simulation. The simulation itself required that an elaborate deception scheme be maintained by the experimenters. The deception provided for complete experimental control of stimuli without affecting the subjects response set. The experimental stimulus was the interaction event message sent to the subject and the dependent response was the interaction event message received from the subject.

Experimental manipulation and control was gained by experimenter mediation of all social communications. The communication apparatus required that all messages be relayed through trained experimenters posing as switchboard operators. Messages sent to subjects were identified as to their ostensible source but in fact they were generated and directed by the switchboard experimenters according to an experimental schedule. The stimulus messages were of preprogrammed scaled intensity on the particular experimental dimensions but were made contingent upon previous substantive discourse of simulation interaction. In this manner, independent measures of social exchange and decision structure were superimposed on the flow of messages in a way that provided experimental control along these dimensions of experimental interest and also preserved the credulity of response contingencies. Now one can appreciate the richness of meaning of the word simulation.[3]

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[3]The word simulation or experimental simulation is used frequently throughout this volumn. The word carries two different meanings depending upon the perspective with which one views it. To the experimental subjects (students) the "simulation" is appropriate because they view themselves in a situation that models (simulates) the

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Consideration of the specific communication schedules will give a clearer understanding of the simulation process. The schedules present a preprogrammed array of stimulus messages which are substantively constrained to specified levels on two substantive dimensions, but beyond that are free with respect to activities and issue-area.

Preliminary work must be done to establish a range for the rapidity with which stimulus messages are presented, i.e., information load. From literature on other man-simulations and from pretests of this Franklin State University game it was decided to deliver 10 messages per 15 minute period evenly dispersed in time. At this rate, there was just sufficient time (1.5 minutes) for an experimenter to deliver a message to each subject and receive a message from each subject. In essence, the procedure generates an interaction function that conforms to the structure of a Poisson process with parameter equal 1.5, i.e., each subject can respond or not respond but at most each can respond only once per 1.5 minute interval. According to the literature (Streufert and Schroder, 1965; Castore & Streufert, 1966; Streufert & Driver, 1966; and Streufert, Suedfeld & Driver, 1965), one would expect that this information load would be at the upper bound for optimal

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interactions of real administrators with students in a real world situation. The word simulation, therefore, does not evoke a special suspicion or fear - it makes sense.

To the experimenters, the word simulation is appropriate for another reason. They realize that the subjects (students) in the laboratory aren't really interacting with anyone, and that the illusion of interaction is created (simulated) by elaborate experimental procedures. From this perspective, the word simulation is also appropriate for description of the actual process within the laboratory. It is hoped that the context will make it clear how the term simulation is to be interpreted.

information processing. However, subjects in this situation indicated that they would have preferred more messages. These results will be discussed in a later section but it is important here to note information load is an important parameter in simulation. Where messages are limited to disaggregated interaction events rather than more complex information packages perhaps messages can be processed easier.

Table 1

Message Schedule: The Case of a Cooperative (A1) - Authoritative (B2) Administration and Mixed Peer Influences (C2)

Rows	Columns				
	1	2	3	4	5
1	5/4	4/5	7/5	N -	6/4
2	3A	6B	4A	7B	N +
3	4/5	5/5	6/4	7/4	N -
4	6B	4A	3A	N +	7B
5	7/4	N -	5/5	6/4	4/5
6	4A	N +	7B	6B	3A
7	N +	6/4	4/4	5/5	7/5
8	7B	3A	N +	4A	6B
9	6/5	7/4	N -	4/5	5/4
10	N -	7B	6B	3A	4A
	Q[a]	Q	Q	Q	Q

[a] Q = Questionnaire

Table 1 gives a schematic description of the message schedule. Experimenters were to generate and deliver messages to subjects of the

type dictated by the message schedule. The schedule includes a total of 50 messages which were presented over the course of the experimental session. The experimental session itself was divided into five segments including a 15 minute block of simulated interaction followed by a 5 minute period in which subjects completed a questionnaire. Within each simulation block, 10 messages were presented. Four messages were ostensibly from administrative sources, another four messages were attributed to student peer sources (2 from A and 2 from B). This arrangement gives equal weight to interteam and intrateam communications. Two additional messages were attributed to sources external to the dyadic system of student/administration interaction. The external sources were identified as independent news sources.[4]

The message schedule is in the form of a matrix. Each matrix column contains a vector of scale values which specify dimensional characteristics of an event to be delivered. The five columns

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[4]The news flash is a remnant of an earlier version of this university simulation. It was invented to allow for controlled intervention in the chain of interaction events to reinforce a line of behavior supporting simulation objectives and to extinguish behaviors not appropriate to the simulated social structure.

While controlled intervention of this type is superior to an uncontrolled meddling with the process, the news flashes still creat some unparsimonious situations for analyses. Eventually, it is hoped that the simulation might be refined to function smoothly without the aid of experimenter intervention via news flashes.

In this research, the use of the news flashes was limited to the following functions: a) to introduce a new issue or topic for subsequent interaction; and b) to clarify a procedure or rule of the simulation game. The reinforcing and extinguishing aspects of news flashes arose only to the extent that some news flashes were interpreted by subjects as good news and others as bad. This limited use of news flashes should not have altered subjects' behaviors with respect to the principle dependent measure (cooperation/conflict). News flashes added to the flexibility, control, and viability of the interaction process and were retained for that reason.

correspond to the five 15 minute blocks. The schedule matrix has 10 rows. The odd numbered rows contain entries that specify scale qualities of messages attributed to administrative sources. The even numbered rows contain values that specify scale qualities of messages attributed to student peer sources. An exception is the case where one news flash substitutes for a peer source during each simulation block. News flashes are designated by the letter "N" and a sign (+ or -) indicating if the news is positive or negative for the student team (SC).

The schedule matrix provides a constant framework within which an experimenter interacts with subjects. The numerical entries in the message schedule matrix signify scaled levels within the dimensions of experimental interest. Messages attributed to student peers were systematically programmed along a single dimension (cooperation/conflict). The intensity of messages thus were constrained along that singular dimension. Messages attributed to administrative sources were systematically programmed along two dimensions. The one dimension was given by the scale of cooperation/conflict and the other dimension given by the scale of partivipative/authoritative organization. The set of numerical entries within the message schedule matrix constitutes an experimental treatment or condition. Matrices with different numerical entries were tested for possible differences they produced in the subject interaction. In this study, the experimental treatments were distinguished by the scale levels on the dimension of decision structure (participative/authoritative) and social exchange (cooperation/conflict). Exposition of the experimental treatments is most easily presented in tabular form (Table 2).

Table 2

Operational Definitions: Experimental Treatments and Dependent Measure

Experimental Treatments

Factor A: Administrators' Exchange Function (Cooperation/Conflict)

A1	R^a = 1-4	$\bar{X}^b$ = 2.5
A2	R = 4-7	$\bar{X}$ = 5.5

Factor B: Administrators' Organizational Structure (Participative/Authoritative)

B1	R = 4-5	$\bar{X}$ = 4.5
B2	R = 1-2	$\bar{X}$ = 1.5

Factor C: Peer Influence (Cooperation/Conflict)

C1	Peer A R = 3-4	$\bar{X}$ = 3.5;	Peer B	R = 1-2	$\bar{X}$ = 1.5
C2	Peer A R = 3-4	$\bar{X}$ = 3.5;	Peer B	R = 6-7	$\bar{X}$ = 6.5
C3	Peer A R = 4-5	$\bar{X}$ = 4.5;	Peer B	R = 6-7	$\bar{X}$ = 6.5

Factor D: Time

D1	Period 1
D2	Period 2
D3	Period 3
D4	Period 4
D5	Period 5

Factor E: Target of Interaction

E1	Administration
E2	Peer A
E3	Peer B

Dependent Measure

Measure X: Subject's Exchange Function (Cooperation/Conflict)

[a] R = Range of Scale Values within the Treatment

[b] $\bar{X}$ = Mean Scale Value of the Treatment

The primary factors in this research are factors A, B, and C. Each of these factors was operationalized through scaled interaction events. The operational form for factor B will be illustrated and it is to be understood that factors A and C are derived through analagous procedures.

Factor B represented the dimension of organization decision structure (participative/authoritative). For the purposes of experimentation, one can independently simulate student interaction with a participative administration and with an authoritative administration. These two independent simulations were run and thus represented two experimental treatments within B (B1 and B2).

Level B1 included interaction events attributed to administrative sources that were of a relatively participative type. The scale values in B1 ranged from 4 (consultative) to 5 (participative) with a mean scale value of 4.5. B2 included only interaction events attributed to administrative sources that were of a relatively authoritative type. Scale values in B2 represented the symmetrical compliments to the scale values in B1. In B2, they ranged from 2 (benevolent-authoritative) to 1 (exploitative-authoritative) with a mean scale value of 1.5. Events that tended to load on the neutral value of this dimension were excluded.

By the procedures above, B1 is understood to simulate a participative administration and B2 to simulate an authoritative administration. These experimental procedures allowed tests of experimental hypotheses, e.g., with regard to factor B that student cooperation/conflict toward administration is a function of administrative decision structure (participative/authoritative). Statistical inferences were made based

on the subject interaction data that were derived from the two independent simulations. Inferences were evaluated relative to the hypothesized effects of factor B.

The procedures for operationalizing the factors A and C were analogous to those for factor B. Factor A had two levels, A1 and A2 that bisected the dimension of cooperation/conflict into its cooperative range and conflictive range respectively. Factor C had three levels that were derived from the dimension of cooperation/conflict. Level C1 represented a condition where both peers (A and B) interacted with the administration within a cooperative range; C2 represented a situation where A was relatively cooperative and peer B was relatively uncooperative toward the administration; and C3 specified a condition where both A and B were in conflict with the administration. In a later section, the experimental procedure presented above will be formalized in an analysis of variance experimental design. It is clear that the frequency of messages was fixed. Also, the scale values varied within a certain range and were ordered in a consistent manner. It remains, however, to specify the frequency and order of scaled events messages within experimental treatments.

Message Frequency and Variation Within Treatments. For the treatments within factor B, four messages relevant to B in each simulation period contained 2 messages of moderate intensity and 2 messages of high intensity. For example, B1 had two messages of a consultative type and two messages of a democratic-participative type in each simulation block. Likewise, B2 had two messages of a benevolent authoritative type and two messages of an exploitative authoritative type.

For treatments within factor A, each simulation block contained

four messages relevant to A, one message each at a null intensity, low intensity, moderate intensity, and high intensity. Specifically, A1 included a single message of null cooperation, verbal cooperation, physical cooperation, and extra-legal cooperation. A2 was represented by the symmetrical compliment in the conflict range, i.e., null conflict, verbal conflict, physical conflict, and extra-legal conflict.

Within factor C, each simulation block contained 4 messages relevant to C. Two of these messages were attributed to each teammate (A and B). Of the 2 messages attributed to A, one was at the null level and the other at the low level of cooperation/conflict. Similarly, of the 2 messages attributed to B, one was at the medium level and one at the high level of cooperation/conflict. Peer A was made to appear moderate in his views and actions while peer B was rather extreme. By these procedures, the variation of scale values within experimental treatments was defined. It remains, however, to describe briefly the ordering of scale values within the matrix.

Order Within Treatments. Considering only the odd numbered rows, there were 5 numerical entries per column for each of the 5 columns. These values together constituted a 5 X 5 submatrix that specified the dimensional constraints on all interteam communications. These interteam messages were programmed along the two dimensions represented by factors A and B.

A treatment of A is composed of a specified set of scale values. The set includes 4 values of cooperation/conflict and a news flash. The news flash, for the purpose of ordering the components of the columns, can be thought of as the fifth value of cooperation/conflict having null intensity. Each of these 5 components of the submatrix column were

randomly assigned a unique alpha-numeric code (A, B, C, D, E). These code letters were arranged into a 5 X 5 latin square design. By replacing the letter codes with their associated column components, an ordering was achieved for all treatments of A. In this research, the basic ordering of column components for A was first obtained for treatment A1. The orderings for treatment A2 were obtained by simple reflection of scale values on the symmetrical scale of cooperation/ conflict.

The ordering of column components of the treatments of B was conducted by the same procedures but independently of those of A. By random replacement of rows and columns, the 5 X 5 latin square design employed for ordering of the column components of A was transformed into a new and independent 5 X 5 latin square design for ordering of the column components of B. The independent orderings of the column components of the treatments of A and B constrained stimulus messages simultaneously along two dimensions. Together, the orderings constitute a 5 X 5 Greco-Latin square design for interteam stimulus messages.

The submatrix composed of only the event numbered rows of the total schedule matrix specifies the preprogrammed characteristics of all intrateam communications. Orderings of column components for treatments of C followed the same procedures as those already illustrated above. One 5 X 5 latin square design was derived for ordering of scale values. An independent 5 X 5 latin square design was generated for ordering the source qualifiers, i.e., whether the message was attributed to A or B. Merging of these two orderings constituted a 5 X 5 Greco-Latin square design for intrateam messages.

The effects of order will not be examined as an independent factor.

Any variance attributable to order effects will add to total error variance which will in turn mitigate against significant results on other independent measures. The purpose of these elaborate counterbalancing procedures has been to minimize the possibility that experimental results will be mediated by order effects. Appendix K presents the schedule matrices for all treatment combinations of factors A, B, and C.

Illustration of Controlled Events Simulation

It is beneficial now to elaborate on the experimental procedure for the delivery of stimulus messages. This will be accomplished by illustrations that relate to the original message schedule matrix given in Table 1. Let the element of the matrix at the intersection of row I and column J be designated $E_{i,j}$. Now consider the element $E_{1,1}$. This element contains a dimensional characteristic which will be imposed on the first event message delivered in simulation block 1. Since this is an odd numbered row, the message is to be attributed to an administrative source. All messages from administrative sources are programmed along two dimensions. For the schedule given in Table 1, $E_{1,1}$ is 5/4. The number to the left of the slash mark (in this case it is 5) gives the value of the message on the scale of cooperation/conflict. The number to the right of the slash mark (in this case it is 4) gives the value of the message on the scale of participative/authoritative organization. $E_{1,1}$ then calls for the delivery of a stimulus message that simultaneously indicates verbal disagreement or conflict and shows a willingness or intent to engage in

consultative decision making. According to the message schedule matrix in Table 1 an appropriate message for $E_{1,1}$ would then be one like the following: "The administration condemns the position taken recently by students in using university facilities for secular-political purposes but before formalization of policy on these matters is willing to listen to student views and arguments." The next message due for serial presentation must conform to the scaler characteristics given by matrix element $E_{2,1}$. This element lies in an even numbered row and therefore it is understood that the event is to be generated so as to simulate an actvity from one of the subject's teammates. In the schedule presented in Table 1, $E_{2,1}$ is 3A. This element calls for the delivery of an interaction message attributed to A that scales at a level equal to 3 on a dimension of cooperation/conflict toward administration. This event then must include a statement by peer A of agreement or cooperation with the administration. The actual event should be tailored to fit the context of the proceeding interactions. For example, a subject may or may not have reacted to the previous administrative message. In either case, the salient issue is that of administrative policy on use of university facilities by students. An appropriate event for $E_{2,1}$ would be the following: "Teammate A applauds the administration for a willingness to consult students before a policy is finalized." Simulated interaction continues throughout the period using these same mechanisms to generate interaction stimulus messages.

Element $E_{10,1}$ calls for the delivery of a negative news flash. An experimenter can take advantage of this opportunity to present a new issue or if things are proceeding well he can give some innocuous news report. An example of the former type might be the following: "A local newspaper has released an editorial statement calling for suspensions of students who engage in unauthorized distribution of political literature on campus." In this case, the news flash adds a degree of tangibility to the interaction process and thereby constributes to the simulation's viability. An example of the latter type might be as follows: "A news report indicates that the situation is stable at Franklin State." In each case, the news flash should be relevant to the interaction that proceeded it. It is necessary now to present the procedures relating to the dependent measures of subject interaction.

Simulation Output

Interaction Events Data. Messages that originated with the subjects and sent through the switchboard operator were intercepted, coded, and scaled. It has already been noted that following each stimulus message the communication channels were made available for a period of approximately 1.5 minutes. This was sufficient time to monitor privately a single response from each subject. Messages from subjects were intercepted by the switchboard operators and disaggregated into discrete interaction events. Each interaction event was then scaled on a dimension of cooperation/conflict and the scale values recorded directly into the appropriate location on a standardized data sheet. (Table 3).

Table 3

Standard Form for Recording Interaction Events Data

		Ss 1					Ss 2					Ss 3				
		Columns					Columns					Columns				
Rows	Targets	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
	ADM[a]						6									
1	A[b]						4									
	B[c]															
	ADM															
2	A															
	B															
	ADM															
3	A															
	B															
	ADM															
4	A															
	B															
	ADM															
5	A															
	B															
	ADM															
6	A															
	B															
	ADM															
7	A															
	B															
	ADM															
8	A															
	B															
	ADM															
9	A															
	B															
	ADM															
10	B															

[a]ADM = Administration

[b]A = Peer A

[c]B = Peer B

If resources of manpower, time, and equipment had permitted, then a superior method of data collection would have been to tape record all simulated interaction. Scaling of interaction events on the dependent measure then could have been done from tape and appropriate precautions against experimenter bias could have been taken by "blind" scaling techniques. Additional benefits of this procedure would be the possibilities for secondary analyses of the raw data stored on tape. The more economical procedure used in this research relied on the following: a) the high degree of discriminability between levels on the dependent measure; b) the provisions for experimenters to ask for clarification of messages and thereby reduce response ambiguity; c) the minimum of experimenter prerogatives in coding and scaling as specified by a standard coding and scaling manual; and d) the naivety of experimenters with respect to the social theory or experimental hypotheses under investigation.

The rows and columns on the standardized data sheet correspond to the rows and columns on the schedule matrix. Any subject may or may not respond to a message. Any response by a subject was limited to one or several of the three targets: the administration, peer A, and/or peer B. Although subjects were limited to one message per 1.5 minute interval, messages in many cases were complex and, therefore, included multiple interaction events. Subject responses were recorded in the appropriate cells of the standard coding form which simultaneous accounts for row, column, and subject. An example may help to clarify the procedure for systematic monitoring and recording of events data.

A message that represents element $E_{1,1}$ in a schedule matrix may

elicit a response like the following: "Tell the administration and my teammates that I (Ss2) will physically resist any action by administration to restrict my constitutional rights and I'd like to know what my teammate A thinks about the situation." This is a complex message. It contains two interaction events each directed by the actor (S2). The one event represents an intent to resist physically the target (administration) and consequently it would scale at a level 6 on the dimension of cooperation/conflict. The other event simply asks peer A to express his views. The latter event implies neither cooperation nor conflict toward A and, therefore, would scale at a level 4.

By reference to Table 3, one can see how the scaled events were properly entered into the cells of the standardized data sheet. A "six" is entered in row 1, column 1, for subject Ss 2, and target ADM; a "four" is entered in row 1, column 1, for subject Ss 2 and target A; and finally, row 1, column 1 for subject Ss 2 and target B is left blank as no response was made toward B. All data monitoring, scaling, and recording procedures were of the form which has been illustrated above. If a coder was in doubt about which scale value to assign to a subject's response, the switchboard operator was to ask for clarification of the message. The point of clarification was then addressed in such a way as to resolve the ambiguity of the level of cooperation/conflict. This mechanism was especially helpful for discriminating between verbal and physical levels of cooperation/conflict. In the real world, the scale values apply directly. In the laboratory, however, all physical activities were simulated and reported through the verbal mode. Additional clarifications of the type noted

above helped to resolve the confusion between the mode of event reporting and the nature of the event itself.

The raw data recorded on the standardized data sheets could have been analyzed directly. For a variety of reasons, however, these data have been aggregated in the current research and the aggregate measures have been treated as the basic units of analysis. The aggregate measures were derived for each subject by collapsing the responses during a single interaction period into three summary statistics. The summary statistics were nonbiased estimates (means) of the cooperation/conflict directed by the subject toward each of three targets (Peer A, Peer B, and Administrators) for the 15 minute time period or simulation block. This technique for construction of the dependent measure is desirable because it minimizes the problems that arise in conjunction with analysis of variance when the number of subject responses is not standardized as was the case in this simulation. The disadvantage of the technique for the current research is minimal as the dynamic interaction within each simulation block was not of as much interest as the dynamic interaction across all 5 of the simulation periods. In other words, the larger time perpsective was of greater interest than the molecular examination of behavior within a short period of time.

This research employed an analysis of variance model. Justification for the aggregating or pooling of responses then depends upon the assumption of the homogeneity of variance of the response distributions. The degree to which this assumption is met is testable but would require many operations across all conditions of pooling. Instead, throughout this research, conservative tests of significance have been

applied. Findings, therefore, should be robust enough to render unconsequential any deviations from perfect homogeneity (Winer, 1962).

Attitudinal Data. A questionnaire was administered after each simulation period. The questionnaire included items relevant both to the attitudes toward other actors in the simulated system and to the viability of the simulation itself. For example, some questions asked subjects to evaluate the administration and student positions on a prescribed set of dimensions. Other questions measured the extent to which subjects perceived that the course of the simulated interaction was contingent upon their own behaviors. In actuality, of course, their behaviors did not in any way affect the level of cooperation/conflict manifest by others in the system. Certain data gained from the questionnaire pertained to information load and information relevance of experimenter generated messages. This questionnaire required a maximum of 5 minutes for completion. This short interruption in the chain of interaction messages did not seem to distract subjects. They readily resumed the interaction in the next simulation block from where they had left off in the previous block.[5]

Summary of Experimental Design

The experimental design for this study included five factors. Specifically, the design was a 5-way analysis of variance with between

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[5]The simulation procedure presented here represents the culmination of recursive pretesting and refining. In an earlier "simulation run," a rather protracted questionnaire was used after each simulation block. It became clear, however, that a lengthy questionnaire interfered with the continuance of the simulated interaction. Based on the experiences of pretesting, a judgment was made to abbreviate greatly the questionnaire keeping only the items of greatest experimental interest.

measures on A, B, and C and repeated measures on D and E. Factor A had two levels and simulated at one level (A1) an administration which was cooperative in interactions with students and which at the other level (A2) was conflictive in interactions with students. Level A1 was given by events with administration actor, subject target, and cooperation/conflict scale values ranging from 1 to 4 in a latin square presentation schedule. Similarily, A2 was given by events from administration with scale values 4 to 7. Factor B simulated the degree to which administration engaged in participative/authoritative decision making with students. Level B1 was defined as a condition of administrative activities ranging on the participative/authoritative scale from 4 to 5. B2 was given by participative/authoritative scale values 1 -2. Factor C simulated the cooperation/conflict of subjects' peers toward administration targets. In condition C1, a subject viewed his peers A and B to be engaged in cooperative activities with administrators (cooperation/conflict scale values = 1 to 4). In condition C3, both peer A and B were perceived to be in conflict with administrators (cooperation/conflict scale values = 4 to 7). In condition C2, peer A was in cooperation with the administration and peer B was in conflict with the administration. In summary, factors A, B, and C are each represented as "between" measures. Together they constitute the major experimental focus of this research.

Perhaps an additional comment relating particularly to peer influence (factor C) is warranted. Some readers may have noted that the experimental design is somewhat asymmetrical. This asymmetry is attributable to the fact that the experimental design included the case of a moderately cooperative and extremely conflictive division of

peers but not the reflected case of a moderately conflictive and extremely cooperative division of peers. Ideally, the missing condition of peer influence should be run and the data assimilated in an expanded factorial design. For the present, however, the asymmetry is a minor concern. The case of a moderately cooperative and extremely conflictive division of peer influence (C2) is a particularly frequent occurrence in real campus conflict situations. It is reasonable, therefore, that if one case of divided peer influences is to represent the set of all possible cases of heterogeneous peer influences that C2 be the best representative of that set. The inclusion of only one, however, permits a clearer understanding of the full range of peer effects. Extrapolations for the missing condition can be made though with caution.

The fourth and fifth factors of the experimental design were repeated measures. Each specified a characteristic of the form of social interaction. The fourth factor accounted for the dimension of time. Because social interaction is a dynamic process, a time factor is implicit in social interaction. Experimentally, the time factor was operationalized by associating a simulation period with a level of the time factor, i.e., D1, D2, D3, D4, D5. The fifth factor specified the target toward whom the subject addressed an event, i.e., E1 = administration, E2 = peer A, and E3 = peer B.

Hypotheses

The review of literature in a previous section has suggested two simple hypotheses. One of those hypotheses is that in a dyadic situation, cooperative/conflictive activities by the one party will be reciprocated by the other party. This hypothesis is fundamental

to exchange theory. An alternative hypothesis is advanced by the deterrence theorists. They claim that high conflictive activities by one party will suppress the intensity of hostile responses by the other party. Subsequent research will evaluate these hypotheses and the merits of the theories from which they are derived.

Various organizational theories prescribe different predictions of cooperation/conflict within a dyadic system as a function of the decision structure of that system. The most recent work in organizational theory would suggest that the situational and environmental contingencies of the social system mediate the effect of decision structure relative to cooperation/conflict within the organizational system. In subsequent research, the situational characteristics and social environment were held constant. By controlling for situational contingencies, administrative strategies can be evaluated within a prototypic situation of student/administration conflict. To the extent that the prototypic paradigm of student/administration conflict evokes behaviors that correspond to incidents of real conflict, then a framework clearly exists for inferences about subjects perceptions of the social system itself. The following discussion will help to clarify this point.

While the experimental roles and communication procedures clearly defined the structure of the simulated system, the procedures were purposefully nondescript in terms of evaluation of the actors or issues. Subjects generalized from their own experiences as students and read into the experimental system whatever characteristics they might be predisposed to associate with university systems in general. If students for the most part view the university as a place where they

are to be innoculated with knowledge through an assembly line process, then organization theory would predict that students would tend to prefer an authoritative organization system. In this case, administrators would probably enjoy a position of perceived legitimate authority attributable to their superior age, wisdom, expertise, and experience. Cooperation would be promoted in the system by authoritative administration initiatives that minimize role conflicts. On the other hand, if students view the university to be a place where they are actively in pursuit of a creative, interesting, and personal education, where they are free to study and involve themselves in both academic and extracurricular activities, then theory would predict student preferences for a participative organization. In this latter case, the authoritative system would be perceived as an abridgment of an essential purpose of the university and thus would be more likely to evoke conflict within the dyadic system. In summary, the behavior of subjects can be evaluated in accordance with organization theory and the results should provide new information on subjects' perceptions of university roles and issues.

Finally, there are hypotheses that pertain to the influences of a subject's peer group. The literature on the psychological impact of conformity, compliance, and obediance is voluminous. This literature has been reviewed by others (Campbell, 1961; Crano, 1967; Cohen, 1964) and therefore an independent review here would not have contributed in proportion to the effort required to produce it. A reader, however, may find particularly relevant here the study by Milgram (1965) on the effects of peer influence on defiance/obediance of an authority figure.

Drawing upon this previous research, one can expect that a subject

will monitor and be influenced by the type of interactions between his peers and the administration. If both peers A and B are cooperative with administration, then the subject will be influenced so as to engage in more cooperative interactions with the administration. Conversely, if both peers A and B are in conflict with the administration, then the subject will be influenced to engage in more belligerent activities directed toward the administration. Of particular interest is the case of heterogeneous peer influences, i.e., where peer A appears to be predominantly cooperative and peer B predominantly conflictive with the administration. Relevant to this case are the research findings of Schacter (1951) on social deviance. Schacter finds that if one person among a group of persons is perceived to be deviant, a subject during early experimental trials or early in the experimental session will attempt to bring the deviant one into a more congruent position with the others. If over time the deviant person is unmoved, the subject will tend to disregard the presence and activities of the deviant one. In the case of divided peer positions, the predisposition of the subject himself will determine which is the majority and which is the deviant position. Which peer is regarded as the deviate will probably be predictable based on the norm of reciprocity. Specifically, if the administration is cooperative and the peers are divided, then the conflictive peer is hypothesized to be viewed as the deviate. In the same way, if the administration is conflictive and the peers are divided, then the cooperative peer is hypothesized to be viewed as the deviate. Derogatory labels have been popularly attached to the various forms of deviance. In the former case, the deviant is the "rabble rouser" and in the latter case

the deviant is the "administration lackey." As the roles of a subject's peers will be controlled and fixed throughout the experimental session, the deviate peer will appear intransigent to initiatives by a subject to alter his position. One might therefore predict a decrease in cooperation between a subject and his deviate peer as a function of time.

The above section has hypothesized upon the effect of certain experimental factors. Many of these hypotheses are testable as simple main effects in an analysis of variance design. These tests are largely evaluative as they relate directly to established theoretical traditions within the field of social psychology. Because this research is also innovative in subject and in method, much of the empirical analyses will be explorative. These explorative analyses pertain mostly to the high order interactions between experimental factors. There is no theoretical structure from which to hypothesize the form of these high order interactions though they probably will be at least as interesting as the simple effects. These interactions are manifested in an intricate experimental simulation and are testable by a multifactor analysis of variance design. The results will require replication but meanwhile they are interesting and suggestive.

RESULTS

This section will present the major experimental results. These results describe the interaction patterns between (student) subjects and their administrator counterparts, their moderate peer, and their extremist peer. Before considering these results, however, some readers may wish to have an empirical presentation of the experimental situation within which the major results arise. In particular, the characteristics of the experimental sample and subject perceptions of the prototypic issues and actors at Franklin State University warrant elaboration. These results, however, are not central to the theoretical purposes of this research and therefore are relegated to Appendix M.

Analysis of Variance on Interaction Data

A 5-way analysis of variance with repeated measures on two factors was performed on the quantified interaction data gathered in the experimental simulation. The experimental design for this analysis has been fully described in Section 3. Results of this analysis are now presented in Table 5.

Inspection of the results show numerous significant high order interactions including a 5-way interaction significant at the .002 level. Clearly, then, these results cannot be used immediately to evaluate the hypotheses formulated from elemental principles of exchange theory and organization theory. Such hypotheses are for the most part testable by simple main effect and lower order interaction

effects. Because main effects and lower order interaction effects may be masked or spuriously distorted by higher order interactions, evaluation of these hypotheses must await appropriate analyses for sorting out these simple effects. In general, a significant higher order interaction will mean that in one condition a lower interaction is strong and in another condition the lower interaction is weak, i.e., there is a contingent relationship between the effect and the condition in which the effect applies. Before proceeding with a complete presentation of the analyses and discussion of experimental simple effects it will be useful to comment about the overall pattern of these results.

Both exchange theory and organization theory suggest that social behaviors are determined by many interacting factors. In the case of dynamic interaction both between and within social collectives, one might expect that multiple contingencies would be particularly prevalent. Therefore, the fact that higher order interactions were found to be operative in the present experimental simulation is viewed as a very positive result. To not have found higher order interactions would have been disappointing and would have raised questions as to the validity of the simulation. The general pattern of results suggest that independent measures were introduced in such a way as to stimulate decision processing by subjects commensurate with the complexity of the actors, issues, and structure of the dyadic system. The complexity or multidimensionality of subject information processing was manifest in the significant higher order interactions.

A more thorough analysis of experimental results now follows including all appropriate tests of simple effects. As noted above,

the significant high order interaction effects of the 5-way analysis of variance take precedence over the lower order effects. To sort out the true meaning of the results will require a systematic approach for the analyses of these simple effects. The complete set of results would be unmanageable and their meaning would be lost without a scheme that would place each result in its proper perspective relative to every other result. Recognizing this point, all significant results will be presented in sets of telescoping tables. Each succeeding table will represent a more molecular division of simple effects until all significant interaction effects are explained. The various results will be presented and later discussed with reference to the experimental conditions within which the results arise. First order simple effects analyses differentiate experimental effects over levels of communication targets. Second order simple effects analyses further differentiate experimental effects over levels of target X time. Third order simple effects analyses still further differentiate experimental effects over levels of target X time X peer influence.

These hierarchical simple effects analyses of variance partition the total variance in the social interaction data so that now only the A X B interactions might remain to be explained. A significant interaction effect of A and B manifested by third order simple effects analysis fortells an interesting result. However, before one can fully assess the character of that result, one must isolate the sources of variance which are involved in the interaction. The isolated factors then must be evaluated for significant differences they cause in the dependent measure over the other experimental conditions. Specifically, one will want to determine the separate effects of

factor A relative to the dependent measure over conditions B1 and B2. Equally informative would be the individual effects of factor B over conditions A1 and A2. These comparisons constitute a fourth order simple effects analysis. However, because of the special characteristics of the factorial design, these evaluations on factors A and B can be easily computed with a desk calculator.

Because factor A and factor B each has only two levels and because tests of significance for the fourth order simple effects over factor A and factor B would employ the same "mean square error," a standard confidence interval can be computed that will serve as a criterion against which all isolated effects of A and B may be evaluated. The derivation of the confidence interval is given next. The F statistic is given by the following:

$$F = \frac{N \sum_{i=1}^{2} (X_i - \bar{X})^2}{\frac{1}{\text{MS error}}}$$

Expanding the summation in the numerator gives:

$$(X_1 - \bar{X})^2 + (X_2 - \bar{X})^2$$

After substitution for $\bar{X} = \frac{X_1 + X_2}{2}$ and arithmetic simplification,

the quantity becomes:

$$= 1/2 (X_1 - X_2)^2$$

Thus

$$F = \frac{N \cdot 1/2 (X_1 - X_2)^2}{\text{MS error}}$$

Solving for the confidence level produces the expression

$$X_1 - X_2 = \sqrt{\frac{2 \cdot F \cdot MS\ error}{N}}$$

For 1 and 10 degrees of freedom, the tabled F statistics for significance at the .10, .05, and .01 levels were found. Substitution of the previous established value for MS error (.2765) and appropriate tabled values of F statistics produces confidence intervals for fourth order simple effects (Table 4).

Table 4

Confidence Intervals for Fourth Order Simple Effects

$X_1 - X_2$[a]	Level of Significance
= ± .5498	< .10
= ± .6762	< .05
= ± .9601	< .01

[a] $X_1 - X_2$ = Confidence Interval for Interaction Means

The rational for this order of hierarchical simple effects analyses will be better appreciated when presented in connection with the specific results. Once a high order interaction is broken down to the point where the result is interpretable in terms of a simple main effect, the hierarchical analysis given above is terminated. The direction of the result is then determined by reference to the interaction means of the main effect. Presentation of results, therefore, will include auxilliary tables of interaction means.

In addition to presentation of the simple effects analyses, discussion of A X B interactions will be aided by a molar definition of two interaction configuration types. Let the interaction means be arranged in matrix form where levels of B are represented by matrix rows and levels of factor A are represented by matrix columns. Also, let $\varepsilon_{i,j}$ designate the matrix element at row i and column j. In the present system, i and j take on values of 1 and 2 thereby formally define the 2 X 2 table of interaction means for experimental factors A and B. If the pattern of interaction means is such that $\varepsilon_{1,1} > \varepsilon_{2,1}$ and $\varepsilon_{1,2} < \varepsilon_{2,2}$ then the interaction means form a "type one configuration". If the pattern of interaction means is reversed such that $\varepsilon_{1,1} < \varepsilon_{2,1}$ and $\varepsilon_{1,2} > \varepsilon_{2,2}$ then the interaction means form a "type two configuration". These two configuration types are formally defined as they represent cases of particular

theoretical interest. Substantively, it will be shown that a type one configuration implies a "benevolent authoritarian effect" and a type two configuration implies a "frustrated participation effect".

Communications toward Administrators. The first set of results pertain to communications by students directed toward administrative targets, i.e., within experimental condition E1. These results will perhaps be of greatest interest as they will relate directly to the issues of peace and war between students and administrators. Making reference to Table 6 , it is clear that high order actions persist. A significant ABCD interaction ($F = 4.6200$, $p < .01$) requires further discriminations within experimental effects. Theory suggests the possibility of differential experimental effects as a function of time. Such a relation would be manifested by differential effects of factors A, B, and C over levels of time (D). Second order effects (Table 7) of this type yielded significant high order interactions in every case. Third order simple effects over levels of peer influence produced either solely main effects which were immediately interpretable or interaction effects of A X B which were interpretable after some hand calculation (Table 8). [6]

The major finding when students interacted with administrative targets and peer influences operated in support of administrative targets, is that greater administration to student conflict caused

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[6]All tests of simple effects were made with the appropriate pooled error terms of the 5-way ANOVA design (Winer, 1962, p. 323). Also, the significance level of all reported F-statistics are based on conservative tests of experimental differences. These results are therefore robust to possible deviations from the assumptions of the analysis of variance model. In particular, the effects of a heterogeneous variance-covariance matrix are offset by conservative tests of significance (Winer, 1962, p. 340).

Table 5

Level of Conflict: Summary of Overall Analysis of Variance

Source of Variance	Degrees of Freedom	Mean Square	F Statistic
Between Ss			
Adm Coop/Conf (A)	1	24.21	70.02**
Adm Part/Auth (B)	1	10.60	30.66**
Peer Influence (C)	2	0.03	0.09
A X B	1	0.45	1.29
A X C	2	4.79	13.84**
B X C	2	0.80	2.31
A X B X C	2	3.77	10.90**
Ss/A X B X C	60	0.35	
Within Ss			
Time (D)	4	0.13	0.69
A X D	4	0.43	2.25
B X D	4	0.60	3.17*
C X D	8	0.44	2.31*
A X B X D	4	0.18	0.94
A X C X D	8	0.61	3.20**
B X C X D	8	0.33	1.73
A X B X C X D	8	0.60	3.14**
D X (Ss/A X B X C)	240	0.19	
Within Ss			
Target (E)	2	59.38	97.84**
A X E	2	10.29	16.95**

Table 5 Cont'd.

Source of Variance	Degrees of Freedom	Mean Square	F Statistic
B X E	2	2.60	4.29*
C X E	4	7.41	12.21**
A X B X E	2	0.75	1.23
A X C X E	4	2.94	4.84**
B X C X E	4	1.32	2.18
A X B X C X E	4	0.43	0.70
E X (Ss/A X B X C)	120	0.61	
Within Ss			
D X E	8	0.29	1.28
A X D X E	8	0.54	2.35*
B X D X E	8	0.34	1.51
C X D X E	16	0.33	1.45
A X B X D X E	8	0.19	0.84
A X C X D X E	16	0.27	1.19
A X C X D X E	16	0.25	1.10
A X B X C X D X E	16	0.55	2.41**
D X E X (Ss/A X B X C)	480	0.23	
TOTAL	1079		

* < .05

** < .01

Table 6

Level of Conflict: Summary of Simple Effects Analysis of Variance for Targets (E)

Source of Variance	Degrees of Freedom	F Statistics		
		E_1	E_2	E_3
Between Ss over E[a]				
Adm Coop/Conf (A)	1			
Adm Part/Auth (B)	1		8.3654**	
Peer Influence (C)	2		15.6681**	
A X B	1			
A X C	2			
B X C	2			
A X B X C	2			5.0902**
Within Ss over E[b]				
Time (D)	4			
A X D	4			
B X D	4			4.6049*
C X D	8			
A X B X D	4			
A X C X D	8			2.5422
B X C X D	8			
A X B X C X D	8	4.6200**		2.7836

[a]MS pooled error for these comparisons was .3076, df = 60.

[b]MS pooled error for these comparisons was .2156, df = 240.

* < .05

** < .01

Table 7

Level of Conflict: Summary of Simple Effects Analysis of Variance for Administration Target (E_1) over Levels of Time (D)

Source of Variance	Degrees of Freedom	F Statistics				
		E_1D_1	E_1D_2	E_1D_3	E_1D_4	E_1D_5
Between Ss for E_1 over D[a]						
Adm Coop/Conf (A)	1					
Adm Part/Auth (B)	1		10.15**			
Peer Influence (C)	2					
A X B	1					
A X C	2		4.91*			
B X C	2					
A X B X C	2	4.11*		8.93**	5.47**	3.96*

[a]MS pooled error for these comparisons was .2765, df = 60.

< .10

* < .05

** < .01

Table 8

Level of Conflict: Summary of Simple Effects Analysis of Variance for Administration Target (E_1) over Levels of Peer Influence (C) X Time (D)

Source of Variance	Degrees of Freedom	F Statistics														
		$E_1D_1C_1$	$E_1D_1C_2$	$E_1D_1C_3$	$E_1D_2C_1$	$E_1D_2C_2$	$E_1D_2C_3$	$E_1D_3C_1$	$E_1D_3C_2$	$E_1D_3C_3$	$E_1D_4C_1$	$E_1D_4C_2$	$E_1D_4C_3$	$E_1D_5C_1$	$E_1D_5C_2$	$E_1D_5C_3$
Between Ss for E_1 over C X D[a]																
Adm Coop/Conf (A)	1	16.70**		3.80	21.44**		12.20**	17.71**		43.63**	18.14**		17.97**	42.24**	9.98**	26.58**
Adm Part/Auth (B)	1			7.67*		4.40*	8.71**			9.11**	3.07		3.26			21.78**
A X B	1	3.04	4.51*					4.07		14.50**			14.48**		11.16**	

[a]MS pooled error for these comparisons was .2765, df = 20.

< .10

* < .05

** < .01

Table 9

Level of Conflict: Summary of Simple Effects Analysis of Variance for Extremist Peer Target (E_3) over Levels of Time (D)

Source of Variance	Degrees of Freedom	F Statistics				
		E_3D_1	E_3D_2	E_3D_3	E_3D_4	E_3D_5
Between Ss for E_3 over D[a]						
Adm Coop/Conf (A)	1				6.09*	
Adm Part/Auth (B)	1		10.74**		3.37	
Peer Influence (C)	2					
A X B	1					
A X C	2	5.48**	8.20**			
B X C	2	5.15**				
A X B X C	2			4.79*		7.31**

[a] MS pooled error for these comparisons was .2765, df = 60.

< .10

* < .05

** < .01

Table 10

Level of Conflict: Summary of Simple Effects Analysis of Variance for Extremist Peer Target (E_3) over Levels of Peer Influence (C) X Time (D)

Source of Variance	Degrees of Freedom	F Statistics														
		$E_3D_1C_1$	$E_3D_1C_2$	$E_3D_1C_3$	$E_3D_2C_1$	$E_3D_2C_2$	$E_3D_2C_3$	$E_3D_3C_1$	$E_3D_3C_2$	$E_3D_3C_3$	$E_3D_4C_1$	$E_3D_4C_2$	$E_3D_4C_3$	$E_3D_5C_1$	$E_3D_5C_2$	$E_3D_5C_3$
Between Ss for E_3 over C X D[a]																
Adm Coop/Conf (A)	1		6.17*	4.01		3.91	8.90**	6.90*						3.10		
Adm Part/Auth (B)	1		8.71**		3.35		10.10**									3.03
A X B	1							6.24*						5.79*		8.44*

[a]MS pooled error for these comparisons was .2765, df = 20.

< .10

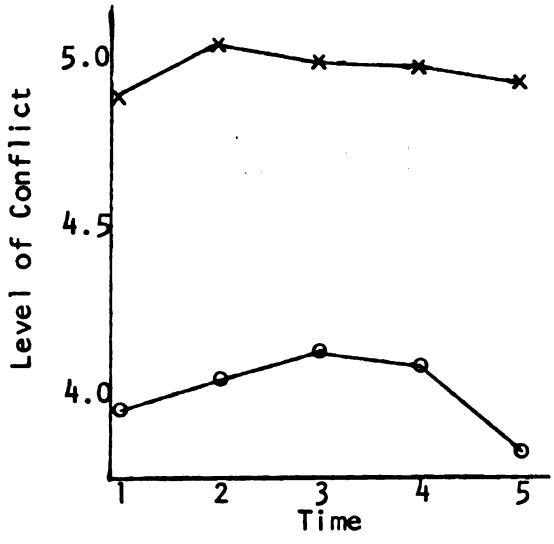
* < .05

** < .01

greater subject to administration conflict. Subjects were reactive to administration interaction of a conflictive type and roughly reflected the intensity of conflict in their interactions with administration. A comparable reflection of cooperative initiatives was not found. A subject's typical response to a cooperative administration was one of neither cooperation nor conflict. This pattern of results argues for a norm of relative reciprocity rather than a norm of strict reciprocity in cooperation/conflict interactions. This effect is consistently significant at the .01 level over all levels of time (D). (Table 11).

Table 11

Level of Conflict over Time as a Function of Administration Cooperation (A1)/Conflict (A2): The Case of Administration Target (E1) and Cooperative Peer Influence (C1)



Time	A1	A2
1	3.994	4.871
2	4.037	5.031
3	4.058	4.961
4	4.040	4.954
5	3.516	4.911

In the first and third time periods factor A and factor B manifest a significant interaction. Table 12 presents the interaction means for these two A X B interactions.

Table 12

Level of Conflict: Administration Cooperation (A1)/Conflict (A2) X Administration Participative (B1)/Authoritative (B2) Interaction Means given Administration Target (E1) and Cooperative Peer Influence (C1)

	A1	A2
B1	4.139	4.642
B2	3.849	5.100

(a)

	A1	A2
B1	3.744	5.081
B2	4.371	4.842

(b)

From Table 12 , Part "a" it is quite clear that the significance of the A X B interaction is attributable to differences in factor A over conditions B1 and B2. Confidence intervals based on adjacent cell comparisons produced only one significant result. Given an authoritative administration and a cooperative peer influence, cooperative administrative activities elicited significantly less conflict than did conflictive administrative activities (C.I. = 1.251, $p < .01$). The result demonstrated the importance of administrative democracy in moderating the influence of cooperative and conflictive administrative initiatives. Conversely, administrative autocracy had a polarizing influence on subject reactivity to cooperative and conflictive administration activities. A possible interpretation of the interaction configuration holds that the simulation manual created an initial expectation that influenced interaction behaviors. An unexpectedly cooperative administration coupled with an authoritative system evoked the least conflict of all conditions. The paradoxical effect in this "type one configuration" was based upon the special favor accorded to this "benevolent authoritarian role".

The A X B interaction given in Table 12, Part "b" constitutes a

"type two configuration". Examination of all fourth order simple effects clarified the nature of this interaction. Under condition B1, the effects of A were highly significant (C.I. = 1.337; < .01) but under condition B2 the effects of A were insignificant. Substantively, this means that when administrators were cooperative toward students and when historic portrayl of student/administration conflict was not salient, participative administration elicited less subject conflict (A1/B1 = 3.744) and authoritative administration elicited more subject conflict (A1/B2 = 4.371). A marginally significant effect for factor B was also found under condition A1 (C.I. = .627; < .10) but not A2. In sum, this interaction implies some different social psychological relationship. The conclusion here is that by the third period the initial expectations were no longer maintained and new expectations had become salient. Accordingly, subjects expect that over time their own involvement in a participative decision structure will have a positive impact on the bases of conflict between students and administrators. By experimental design, however, the level of conflict in events attributable to administration sources remains constant. Therefore, contrary to subjects' expectations, the intensity of student/administration conflict is not reduced. This type two configuration result reflects subjects' frustrations in unproductive participation.

There was no consistent result over time for communications toward the administrative target under the condition of divided peer influences. Several isolated results, however, do achieve significance. Within D1 there was a significant AB interaction (F = 4.51, < .05) and within D5 there was another significant AB interaction (F = 11.16, < .01). Examination of the interaction means for each of these results

showed the interaction within D1 to be a "type two configuration" and the interaction within D5 to be a "type one configuration" (Table 13). More precisely, fourth order simple effects of the first time period indicated a marginally significant effect for B within A1 but not A2 (C.I. = .725; < .05). In the fifth time period two highly significant effects were found; significant differences in factor A under condition B2 (C.I. = 1.395; < .01) and significant differences for B under condition A2 (C.I. = 1.057; < .01). This pattern of results over levels of time is substantively different for divided peer influences than was previously observed for unanimous cooperative peer influence. Somehow the difference must be attributable to differences between the peer models but the dynamics of this effect demand further clarification.

Table 13

Level of Conflict: Administration Cooperation (A1)/Conflict (A2) X Administration Participative (B1)/Authoritative (B2) Interaction Means given Administration Target (E1) and Mixed Peer Influences (C2)

	A1	A2
B1	4.299	4.688
B2	5.024	4.500

(a)

	A1	A2
B1	4.742	4.703
B2	4.365	5.760

(b)

Two simple main effects also were found for communications toward administrative targets (E1) in an environment of mixed peer influence (C2). In the second time period there was a significant simple main effect for administration participation/authoritative activities (F = 4.40, < .05). In particular, participative administration evoked less conflict than did an authoritative administration (B1 = 4.515;

B2 = 4.965). In the fifth time period, there was a significant simple main effect for administration cooperation/conflict (F = 9.98, < .01) with constituient interaction means of A1 = 4.553 and A2 = 5.231. This latter result demonstrated a simple operative norm of relative reciprocity of cooperation/conflict. The rather isolated occurrence of these two results, however, requires replication before they be accorded theoretical importance.

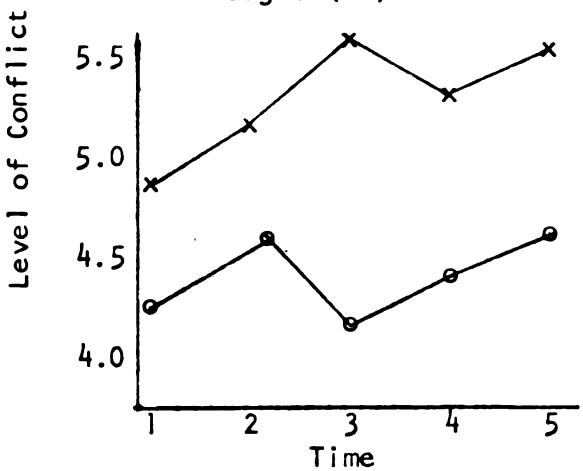
In view of the high significance achieved for many sources of variation throughout the complete experimental design, a major finding is the conspicuous absence of significant communication differences as a function of administration cooperation/conflict and administration participative/authoritative activities for administration target when peer influences were mixed. This result implies the action of some "suppressor variable". Theory and research on deviance (Schacter, 1957) provide a clue to what might have happened here. Subjects may have given primary attention to the divisions within their peer group with an aim of achieving some team solidarity and cohesion. Interactions with administrators were only a secondary concern, and therefore sources of variation based on interactions with administrators were less reflective of the dynamics within the social system.

Highly significant simple effects were found for communications with administration in the presence of unanimous conflictive peer influences across all time periods. These simple main effects for factor A gave strong empirical support to the relative reciprocity norm. Similarly, the simple main effect for factor B suggested that a participative decision structure provides an organizational mechanism through which student/administration conflict can be managed within

more temperate levels. The strength of these results are reflected in both the level of significance and the consistency of the results over time (Table 14). The unanimity of subjects' peers in conflict with administrators had apparently provided a social reference group that was of considerable influence on a subject. In this situation, subjects were cued for conflict and, therefore, were especially attentive to qualities of administrative activities. To the extent that administrators engaged in conflict with a subject and were authoritative in governing a subject, then that subject tended to have no basis for taking a position deviant from that of his referent group. The subject, therefore, engaged in a high intensity of conflict with administrators. In the case where administrators appeared cooperative and participative towards a subject, there existed information that contradicted and partially superceded the influence of the referent group. In this latter case, results show less subject conflict toward administrators.

Table 14

Level of Conflict over Time as a Function of Administration Cooperation (A1)/Conflict (A2): The Case of Administration Target (E1) and Conflictive Peer Influences (C3)

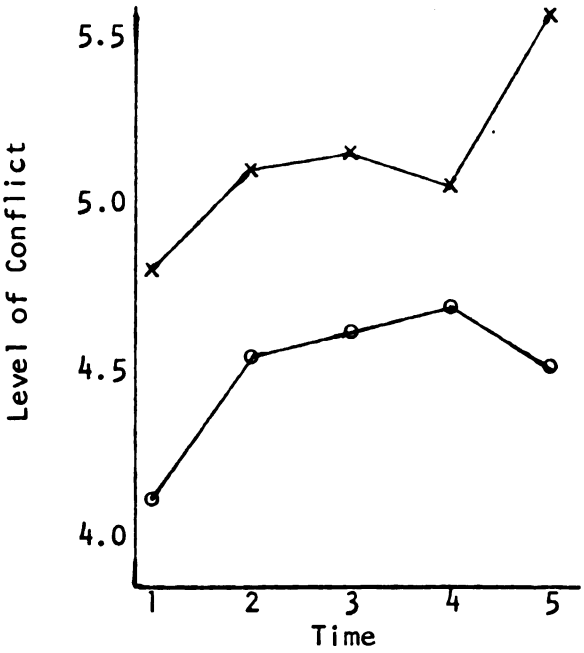


Time	A1	A2
1	4.367	4.786
2	4.516	5.265
3	4.218	5.635
4	4.440	5.349
5	4.517	5.624

(a)

Table 14 (Cont'd.)

Level of Conflict over Time as a Function of Participative (B1)/Authoritative (B2) Administration: The Case of Administration Target (E1) and Conflictive Peer Influences (C3)



(b)

Time	B1	B2
1	4.279	4.874
2	4.573	5.207
3	4.603	5.251
4	4.701	5.088
5	4.569	5.571

In the latter periods of simulation (D3, D4) a significant A X B interaction effect emerged. In each case, the pattern of the means constituted a "type one configuration". Upon closer examination, the source of the interaction was the differential effect of factor A over conditions B1 and B2. In periods three and four, when administration cooperation/conflict was coupled with authoritative administration characteristics, significant differences were found (CI = 2.235; < .01: CI = 1.726; < .01). No comparable differences for administration cooperation/conflict were found in the case of a participative administration. This pattern of subject behavior had previoulsy been observed in the case of cooperative peer influences and now it is seen to underlie subject behaviors for the case of conflictive peer influences as well. The effects of administration cooperation/conflict

were moderated by participative administration communications. Conversely, subject reactivity to administration cooperation/conflict was accentuated by authoritative administration communications (Table 15).

Also in periods three and four, there were strong differences due to administration participative/authoritative activities under conflictive but not under cooperative administration positions (CI = 1.465; < .01: CI = 1.204; < .01). This result suggests some avoidance of participative association with administrators when there is no conflict issue that would be served by such participation. However, when administrators were in conflict with a subject, participative decision making was seen to be useful and it was sought. If participation was then denied, it further enflamed the subject's reaction (Table 15).

Table 15

Level of Conflict: Administration Cooperation (A1)/Conflict (A2) X Administration Participative (B1)/Authoritative (B2) Interaction Means given Administration Target (E1) and Conflictive Peer Influences (C3)

	A1	A2
B1	4.302	4.903
B2	4.133	6.368

(a)

	A1	A2
B1	4.654	4.747
B2	4.225	5.951

(b)

Communications toward Moderate Peer. In the simulated system, the moderate peer is represented by peer "A". Sources of variance on cooperation/conflict generated by a subject toward peer A showed few significant differences. This general result might have been anticipated as peer A always took a relatively moderate position of

cooperation/conflict. The moderate position did not evoke complex differences in subject interaction with peer A across experimental conditions. High order interactions did not achieve significance and thus analyses of simple effects were not required. However, two main effects were found. Subjects were significantly more cooperative with peer A when administrators were participative than when administrators were authoritative ($F = 8.3654$, $< .01$). This result is reasonable in that activities that scale at a moderate level of cooperation/conflict are those that would be most appropriate within a participative system. Activities that scale at the more extreme levels are those that are employed as an integral part of confrontation tactics when participative channels within the university organization are foreclosed. Subjects were also responsive to differences in the positions of both the moderate (A) and extremist (B) peers as manifested in interactions made towards the moderate peer ($F = 15.6681$, $< .01$). When both peers took a cooperative stance toward administrators, peer A was addressed with a zero-order intensity of cooperation/conflict. When peer A was moderately cooperative as before and peer B took on an appearance of extreme conflict towards administrators, peer A was generally the target of more conflict. Finally, when both peers were in conflict with the administration, peer A was the target of generally cooperative initiatives by subjects. These interpretations were based on the interaction means across the respective levels of experimental factor C ($C1 = 4.098$; $C2 = 4.159$, and $C3 = 3.786$). The results of interactions towards peer A give a general description for subject interaction with a moderate peer influence (Table 6).

Communications toward Extremist Peer. The extremist peer is simulated by peer "B". Subjects' communications toward the extremist peer are represented within the factorial, experimental design as target E3. The first order simple effects within E3 resulted in high order interactions which obscured the results for lower order interactions and main effects. As was done for higher interactions within E1, high order interactions within E3 were first broken down over time (D). A second order simple main effect for factor B was found in the second time period ($F = 10.74$, $< .01$). Subjects were more cooperative toward the extremist peer when administration was participative ($B1 = 3.729$; $B2 = 4.135$). A similar result was found for factor A in the fourth time period. Subjects were more cooperative toward the extremist peer when administration was cooperative [$F = 8.20$, $< .01$ ($A1 = 3.771$; $A2 = 4.076$)]. The results indicated some adversion to the extremist position. The extremist position was seen to be unrepresentative of the student coalition and in some instances was perceived to be unwarranted and unresponsible. Therefore, it gave some justification for administration's continuance of an authoritative posture. Subjects, therefore, showed less cooperation in messages toward the extremist peer when it was apparent that the extremist peer was undermining the participative strategy of the student coalition. The extremist peer was also the target of less cooperative communication when subjects saw hostile administration activities to have been precipitated by this extreme position within the student ranks. In summary, the subjects showed sensitivity to maintenance of solidarity and integrity of the student coalition.

Other results pertaining to communications toward the extremist

peer demanded more discriminating analyses over conditions of peer influence. In periods three and five, third order simple effects for administration cooperation/conflict were significant ($F = 6.90$, $< .05$; $F = 3.10$, $< .10$). This result was for the case of unanimous peer cooperation. Based on the interaction means, the direction of this result was determined. The extremist peer was the target of greater conflict when extreme cooperation appeared unjustified as in the case of a hostile and authoritative administration (A1 = 3.857 and 5.914; A2 = 4.421 and 4.292).

In time period one for the condition of mixed moderately cooperative and extremely conflictive influences, the extreme peer was the target of less cooperation when administration was hostile [$F = 6.17$ $< .05$ (A1 = 3.424, A2 = 3.957)]. This is the same type of result that was found to apply across all conditions of peer influence in period four. Subjects' behavior represented a reaction against the counter-productive activities of the extremist peer.

Where both peer models are in conflict with administration, the effects of administration cooperation/conflict and administration participative/authoritative showed some reversal of the pattern found for mixed peer models. In the second period, subjects were more cooperative in messages toward peer B when administration was hostile [$F = 8.90$, $< .01$ (A1 = 4.237; A2 = 3.596)]. In the fifth period, subjects were more supportive of the extremist peer when administration was authoritative ($F = 3.03$, $< .10$). When in these cases the extreme voice for conflict is supported by a moderate voice for conflict, then the conflictive and authoritative initiatives by administrators toward subjects serve to rally support and increase cooperation for the

extreme conflict position advocated by peer B.

For unanimous cooperative peer influences, analyses showed a significant A X B interaction within the third and fifth time periods. In each case, the interaction was of a "Type two configuration" (Table 16). In both the third and fifth time periods, the sources of these interactions were identical. Administration cooperation/conflict produced significant differences under condiiton B1 but not B2. Also, administration participative/authoritative activities gave significant differences under A1 but not A2. Confidence intervals for differences

Table 16

Level of Conflict: Administration Cooperation (A1)/Conflict (A2) X Administration Participative (B1)/Authoritative (B2) Interaction Means given Extremist Peer Target (E3) and Cooperative Peer Influence (C1)

	A1	A2
B1	3.469	4.567
B2	4.247	4.275

(a)

	A1	A2
B1	3.494	4.389
B2	4.333	4.194

(b)

due to factor A are CI = .778 ($p < .05$) and CI = .839 ($p < .05$). Confidence intervals for differences due to factor B are CI = 1.098 ($p < .01$) and CI = .895 ($p < .05$). These results suggest that subjects in the later periods of simulation come to view an extremely cooperative peer as an "administration lackey". It is not surprising then that initiatives toward the extremely cooperative peer are of the same general type that characterized subject initiatives toward administrators under the same circumstances.

For the condition of unanimous peer conflict, analysis produced

a significant A X B interaction having "type one configuration". This interaction in the fifth time period was attributable to the same factors and conditions as those discussed above. For the case of unanimous conflictive peer influences, however, the direction of the experimental effects was reversed. This symmetry in results enhances the validity and theoretical importance of the simulation. The confi-

Table 17

Level of Conflict: Administration Cooperation (A1)/Conflict (A2) X Administration Participative (B1)/Authoritative (B2) Interaction Means given Extremist Peer Target (E3) and Conflictive Peer Influence (C3)

	A1	A2
B1	4.456	3.611
B2	3.458	3.861

interval for differences due to factor A under condition B1 was CI = .845 ($p < .01$). The confidence interval for factor B under condition A1 was CI = .998 ($p < .01$).

This concludes the formal presentation of results based upon analysis of variance of the interaction data. It is clear that the simulation procedure was a viable one and that experimental manipulations produced many significant differences in subjects' interaction behavior. The credibility of the results is enhanced by the conservative criteria applied in judging the significance of all results. The next section will present some supportive analyses.

Supportive Analyses

Any experimental study is subject to alternative interpretations of empirical findings. It is, therefore, incumbent upon the researcher

to provide evidence that alternative interpretations are not viable. In the current research, there are several possible alternative hypotheses. Most important, perhaps pertains to the possible significance attributable to experimenter differences beyond those differences specifically programmed into the experimental schedule. Substantial effort was made in training experimenters so that idiosyncratic differences across experimental conditions would be minimized. Data have already been presented that show a high degree of correspondence across experimenters in performance of the coding and scaling tasks which constitute the basis of experimenter control. Nevertheless, it is now necessary to devote some effort to a direct test of differences in subject interaction associated with experimenters. Hopefully, these tests will produce negative results.

The assignment of experimenter teams (1 sender and 1 coder) to experimental conditions was planned so as to counterbalance roughly teams within conditions. Two teams were assigned to each experimental condition. The design for allocation of experimenter teams is given in Table 18. Experimenter teams are referenced by code letters 1, 2, 3, and 4. Each team controlled the simultaneous actions of three subjects. With this design, one can partition the total variance of subjects' responses into two factors. Let factor X designate the experimenter team. Factor X then will have two levels such that X1 represents the involvement of teams 1 and 2 and X2 represents the involvement of teams 3 and 4. Let factor Y designate the conditions which the various experimenter teams operate. Factor Y then will have six levels which represent the six conditions within each level of factor X. This design is not a perfect "between" design because the

Table 18

Assignment of Experimenter Teams to Experimental Conditions

	A1		A2	
	B1	B2	B1	B2
C1	1 / 2	3 / 4	3 / 4	1 / 2
C2	3 / 4	1 / 2	1 / 2	3 / 4
C3	1 / 2	3 / 4	3 / 4	1 / 2

conditions represented by levels of Y are not the same but are only counterbalanced across levels of X. Nevertheless, one can analyze these data as if they were a perfect "between" design. The results of this analysis are presented in Table 19. There are highly significant differences between conditions but little of that significance can be attributable to experimenter effects. Neither the main effect for experimenter differences nor the experimenter by conditions interaction achieved significant proportions. The lack of any significant experimenter effect is even more dramatic when one considers the proportion of the total variance attributable to experimenter differences. The experimenter main effect accounted for only .2 percent ($Eta^2 = .002$) of the total variance in subjects' responses. The experimenter X conditions interaction explained only 5.8 percent ($Eta^2 = .058$) of the total variance. In total, these results showed that experimenter effects had neither significance nor importance for subjects.

Other alternative hypotheses pertain to the structural characteristics of the experimental simulation. It is, of course, not possible to rule out every conceivable alternative hypothesis of this type.

Table 19

Level of Conflict: Summary of Analysis of Variance for Experimenter Differences (X) and Experimental Conditions (Y)

Source of Variance	Degrees of Freedom	Mean Square	F Statistic	Eta^2
Experimenter Differences (X)	1	.0977	.3909	.0020
Experimental Conditions (Y)	5	7.9445	31.7684 **	.8167
Experimenter Differences (X) X Experimental Conditions (Y)	5	0.5624	2.2490	.0570
Error	24	0.2501		.1234

** $p < .01$

There was, however, data available from the repeated questionnaires administered subsequent to each simulation block which provided a base for evaluation of several of the more likely alternative hypotheses.

The validity of the experimental results as presented earlier depends on the success of the deception employed in the simulation. If subjects were conscious of the contrived nature of their experimental situation, they may have taken on some type of inappropriate response set. A classical confound is the case where subjects "see through" the experiment but continue to respond in a manner judged to be socially desirable or preferred by the experimenter. If, however, the experimental simulation stimulates great subject interest, if it is sufficiently real that subjects actively involve themselves, and if subjects generally enjoy the simulation, then experimenter demand characteristics should be minimized. The effects of fatigue, boredom, and lack of conscientiousness should also be minimized through such a viable simulation. The results presented in Table 22 related to this point. Results showed subjects perceived that the activities of their own team, activities of their opposing team, and public opinion factors were the principle determinants of the course of simulated interaction. Only a modest influence was given to various chance factors, environmental factors, and the activities of the switchboard operators (experimenters). Of course, in actuality, the totality of determination was vested in the activities of the switchboard operators. These results were relatively constant over the five simulation blocks. It was important that the deception basic to the experimental simulation did not deteriorate as subjects engaged in protracted simulation mediated by the switchboard operators. Results

derived from all simulation blocks then should be equally free of artifacts of experimental mechanics.

Correlational results provide further confidence in the scale through which experimental factors were operationalized. Subjects were asked to rate various actors within the simulated organizational system on a number of dimensions. Of particular importance here were the correlations between the level of the experimental control of a characteristic dimension and subjects' perceptions of the same actor characteristics. Table 20 presents these correlational results. The pattern of results showed an increase in correlations over time. The scales then were sensitive to effects of social learning. As a subject became more familiar with an actor in the simulated system, his perception of that actor corresponded more closely to its experimentally controlled level.

Table 21 is of the same form as Table 20 but presents the correlations between experimenter codes and perceptions of actor characteristics. The correlational results are all of zero order and thus give further evidence for the absence of intrusions of experimenter bias.

Finally, Table 23 offers results that summarize subjects' general satisfaction with the experimental simulation. Each result is based on a 7-point Likert type scale. Subjects reported communications to be quite relevant and more so in the later simulation periods than in the earlier periods. Subjects were generally eager for more information. Experimenters were pressed to keep the schedule at one message per 1.5 minute interval. Subjects were generally unreserved in their expression of enjoyment in the

Table 20

Correlations between Experimental Control of Actor Characteristics and Subject Perceptions of the Same Actor Characteristics

Correlations	Time 1	2	3	4	5
Administration (Cooperation/Conflict)	.6428	.7526	.8082	.8557	.8408
Administration (Participative/Authoritative)	.2335	.3195	.3420	.6702	.7418
Peer A (Cooperation/Conflict)	.6166	.6558	.6140	.6708	.6223
Peer B (Cooperation/Conflict)	.6747	.7506	.7749	.7763	.7300

Table 21

Correlations between Experimenter Characteristics and Subject Perceptions of Actor Characteristics

Correlations	Time 1	2	3	4	5
Administration (Cooperation/Conflict)	.1738	.1374	.1157	.0433	.0801
Administration (Participative/Authoritative)	-.1566	.0408	-.1451	-.0506	-.0885
Peer A (Cooperation/Conflict)	.0375	0.0000	-.1156	-.0805	-.0072
Peer B (Cooperation/Conflict)	-.0059	-.0848	.0596	-.0354	-.0377

Table 22

Perceived Importance of Factors in Experimental Simulation

Factors	Time 1	2	3	4	5
Activities of your team					
Mean	26.181	28.889	28.764	31.556	32.667
Standard Deviation	14.132	16.914	18.325	18.862	18.375
Activities by the opposing team					
Mean	33.125	33.042	32.833	30.250	31.319
Standard Deviation	19.962	19.571	20.709	19.110	19.488
Public opinion factors					
Mean	12.458	10.111	13.042	11.861	10.736
Standard Deviation	11.412	10.578	11.497	10.872	9.805
Various chance factors					
Mean	7.153	6.486	5.806	5.694	5.750
Standard Deviation	10.632	8.469	10.545	6.976	10.412
Activities of switchboard operators					
Mean	13.694	15.236	16.458	15.681	14.167
Standard Deviation	16.870	20.974	23.529	20.300	19.318

Table 22 (Cont'd.)

Perceived Importance of Factors in Experimental Simulation

	Time				
Factors	1	2	3	4	5
Environmental factors					
Mean	6.694	5.431	3.653	4.806	4.458
Standard Deviation	11.056	9.331	6.661	7.563	7.513

Table 23

General Satisfaction with the Experimental Simulation

Factors	Time 1	2	3	4	5
Communication (very relevant/ very irrelevant) 1 - 7					
Mean	3.583	3.389	3.056	2.958	2.653
Standard Deviation	1.461	1.765	1.799	1.526	1.313
Information requests (much more/much less) 1 - 7					
Mean	1.361	1.431	1.500	1.667	1.681
Standard Deviation	.512	.688	.805	.919	.976
Enjoyment of Simulation (very much/not at all) 1 - 7					
Mean	2.583	2.514	2.250	2.083	1.944
Standard Deviation	1.371	1.565	1.264	1.058	1.005

simulation. Again, this finding held across time and, therefore, argues against fatigue and related artifacts. In summary, these data give strong support for the viability of the simulation and at the same time render unlikely alternative interpretations of results due to structural flaws in the simulation itself.

This concludes the section of formal presentation of experimental results. The following chapter will elaborate upon the meaning of empirical findings and discuss their theoretical and social psychological importance.

DISCUSSION

The results section has presented the experimental results and given brief interpretation to isolated findings. The purpose of this section will be to discuss the overall pattern of the experimental results. Consideration will not focus on the individual findings so much as it will on the regularities among the findings. Through synthesis of the experimental findings, the major relationships that govern the course of student interaction with peers and with administration will be identified. At the same time, these major relationships will serve as an empirical base for the reevaluation of the utility of exchange theory and organization theory in the case of student/administration conflict.

Sufficient evidence has already been presented to demonstrate that the experimental simulation was viable. Subjects demonstrated great enthusiasm within the experimental paradigm. Their interactions events were generated in a serious conscientious manner. Analyses of results manifested student interaction patterns that were nonrandom and predictable. Responses to items of the repeated questionnaire indicated that experimenter-produced interaction messages were highly relevant. Subjects indicated little or no suspicion that the simulation was experimentally contrived. In post-experiment interviews subjects related their enjoyment in participation and their willingness to "do it again for fun." Apparently then subjects were motivated by factors intrinsic to the experimental situation.

These observations are of major importance. They have been emphasized again lest they be lost in preoccupation with the effects attributable to experimental manipulation. It is clear that dynamic student/administration conflict is a function of many social psychological factors. Therefore it is a major accomplishment to have captured the essential characteristics and realism of dynamic student/administration conflict with a parsimonious sample of experimental dimensions.

Analyses of experimental effects have been presented. Judging from the high order interactions among experimental factors, each dimension accounted for a rather unique portion of the variance in subject interaction behavior. In other words, each dimension represented an important and relatively orthogonal determinant of subject behavior. This finding is congruent with the thrust of current organization theory and exchange theory. Each of those theories emphasizes the multiple contingencies of the actors and the social field that contributes to the complexity of behavior.

A summary of significant experimental findings is presented in Table 24. The verbal interpretations of results in Table 24 augment and clarify the strictly numerical evaluation of the same results in Tables 5 - 10. Each page of Table 24 represents the experimental effects that arise within a single period of simulation. Descriptions of subjects' behavior are tabulated according to gross discriminations in circumstances in which they arise. Discriminations on time, target categories, and peer position categories define a cell in the table. The behaviors that arise as a function of the controlled dimensions of administration interaction are recorded within the appropriate cells.

Table 24

Interaction Events by Student Subjects within Levels of Time, Peer Position, Target: Summary of Significant Findings

	Time 1		
	Unanimous peer cooperation with administration	Divided peer cooperation/ conflict with administration	Unanimous peer conflict with administration
Toward administration	* reciprocation of cooperation/conflict * benevolent authoritarian effect (type one configuration)	* frustrated participation effect (type two configuration)	* reciprocation of conflict * conflict moderated by participation
Toward moderate student	* more cooperative when administration was participative * neutral cooperation/ conflict generated by pooled peer influences	* more cooperative when administration was participative * conflict generated by pooled peer influences	* more cooperative when administration was participative * cooperation generated by pooled peer influences
Toward extremist student		* more cooperative when administration was cooperative * more cooperation when administration was authoritative	* less cooperative when administration was cooperative

Table 24 Cont'd.

	Time 2		
	Unanimous peer cooperation with administration	Divided peer cooperation/ conflict with administration	Unanimous peer conflict with administration
Toward administration	* reciprocation of cooperation/conflict	* conflict moderated by participation	* reciprocation of conflict * conflict moderated by participation
Toward moderate student	* more cooperative when administration was participative * neutral cooperation/ conflict generated by pooled peer influences	* more cooperative when administration was participative * conflict generated by pooled peer influences	* more cooperative when administration was participative * cooperation generated by pooled peer influences
Toward extremist student		* more cooperative when administration was cooperative * more cooperation when administration was authoritative	* less cooperative when administration was cooperative * more cooperation when administration was authoritative

Table 24 Cont'd.

	Time 3		
	Unanimous peer cooperation with administration	Divided peer cooperation/ conflict with administration	Unanimous peer conflict with administration
Toward administration	* reciprocation of cooperation/conflict * frustrated participation effect (type two configuration)		* reciprocation of conflict * conflict moderated by participation * benevolent authoritarian effect (type one configuration)
Toward moderate student	* more cooperative when administration was participative * neutral cooperation/ conflict generated by pooled peer influences	* more cooperative when administration was participative * conflict generated by pooled peer influences	* more cooperative when administration was participative * cooperation generated by pooled peer influences
Toward extremist student	* greater conflict when administration is belligerent * frustrated participation effect (type two configuration)		

Table 24 Cont'd.

	Time 4		
	Unanimous peer cooperation with administration	Divided peer cooperation/ conflict with administration	Unanimous peer conflict with administration
Toward administration	* reciprocation of cooperation/conflict * conflict moderated by participation		* reciprocation of conflict * conflict moderated by participation * benevolent authoritarian effect (type one configuration)
Toward moderate student	* more cooperative when administration was participative * neutral cooperation/ conflict generated by pooled peer influences	* more cooperative when administration was participative * conflict generated by pooled peer influences	* more cooperative when administration was participative * cooperation generated by pooled peer influences
Toward extremist student		* greater cooperation when administration was belligerent * more cooperation when administration was authoritative	* greater cooperation when administration was belligerent * more cooperation when administration was authoritative

Table 24 Cont'd.

	Time 5		
	Unanimous peer cooperation with administration	Divided peer cooperation/ conflict with administration	Unanimous peer conflict with administration
Toward administration	* reciprocation of cooperation/conflict	* reciprocation of cooperation/conflict * benevolent authoritarian effect (type one configuration)	* reciprocation of conflict * conflict moderated by participation
Toward moderate student	* more cooperative when administration was participative * neutral cooperation/ conflict generated by pooled peer influences	* more cooperative when administration was participative * conflict generated by pooled peer influences	* more cooperative when administration was participative * cooperation generated by pooled peer influences
Toward extremist student	* greater conflict when administration is belligerent * frustrated participation effect (type two configuration)		* benevolent authoritarian effect (type one configuration)

Table 24 summarizes the patterns of subject behavior that were observed during experimental simulations. The results present strong support for many of the hypotheses stated in an earlier section. The expectation was not that any one hypothesized relationship would appear across all experimental conditions. Rather, the intent was to identify the set of conditions in which the effect of an experimental factor was particularly acute. The subsequent discussion will make reference to Table 24. The discussion is aimed toward substantive, theoretical, and policy issues. In order to most clearly demonstrate the relevance of the experimental results to theoretical and practical policy issues, discussion will examine the homologies between the empirical analyses of simulation data and historical analyses of the Berkeley Free Speech Movement. Complete historical analyses of the Berkeley Free Speech Controversy are provided elsewhere (Lipset and Wolin, 1965; Crano 1971). The purpose here is not to repeat those efforts but rather to point to the convergence of the present experimental findings and documented historical behaviors. The experimental results include more information than do the historical accounts but the convergence of findings in those cases amenable to comparison will enhance the credibility of the simulation as a whole.

The experimental data reflect behavioral dispositions that arise under a controlled set of circumstances. These data are rich in the sense that they permit examination of both main effects and interaction effects across controlled experimental factors. By experimental procedures, determinants of behavior can be discovered and internal validity is maximized. On the other hand, data from field locations mirror the heterogeneity of influences that operate in the real world.

Field data do not permit analyses of cause and effect but they do allow associational analyses under conditions where external validity is assured. If by chance or design field conditions and experimental conditions were to coincide on a set of dimensions for a period of time, then there is a basis for comparison of the behavioral outcomes of each. Convergent findings of field and experimental simulation methods would provide greater assurance of the research validity.

When a subject's peer influences were unanimous in their support or unanimous in their animosity toward administration, there was a clear and significant tendency for a subject to reciprocate the intensity of cooperation/conflict emitted by administrative actors. This behavior norm was not one of strict reciprocity but rather one of relative reciprocity. Subjects were reactive to belligerent administrative initiatives but neutral to cooperative initiatives. This result implied a defensive posture by student subjects. A subject's preference for an authoritative system so long as it appeared to be a benevolent system, provided for a second dimension of evaluation. In other words, participative decision structures were sought not for their intrinsic worth but only when a vested interest might be promoted. Based on these empirical observations, one can predict that in times of student/administration normalcy, students will manifest a passive, defensive role in behavioral relations to administrative functions. Specifically, this behavior will be exhibited in a willingness to submit to the procedures and practices of the university as they currently exist. This behavioral form is based on the judgment that the authority of administration is operating within a legitimate domain. Students, therefore, respect the traditional

academic roles and perpetuate a passive "innoculation type" system.

At Berkeley, prior to 1964, there had been a generally positive feeling about administration conduct. The Berkeley university administration was reputed to be among the most liberal and progressive in the United States. The open forum for expression and exchange of ideas which characterized the atmosphere of the total campus was epitomized in the "Bancroft Strip" area. This small brick courtyard near the main pedestrian entrance to the campus, was traditionally a place where all shades of opinion could be aired. Very often, tables would be set up on the strip, and various organizations (CORE, SDS, Young Republicans, Young Democrats, Inter-Faith Council, etc.) would solicit funds, disseminate literature, and attempt to attract followers. From a psychological viewpoint, this arrangement seems ideal. Students could, in a constructive way, air their views, vent frustrations, attract supporters and opponents, and participate in extracurricular activities of social significance (Crano, 1971). While these opportunities existed for all students, a minority of students were regularly involved. Furthermore, the involvement was seen to augment the program of the university and not to question the legitimacy of administrative authority or academic roles. The student activities in the strip were, therefore, not of a revolutionary type. Normalcy existed in student/administration interactions and the authoritative characteristics of university administration were not widely challenged.

Based on empirical findings, one can also predict that in times of student/administration conflict students will actively defend their position. In part this defense will rely on representative participation in university administration. When a participative mechanism for

grievances is available it has an initial effect of moderating the intensity of conflict initiatives by students toward administrators. In protracted situations, the effect of participation may be reversed. If participation creates some expectation about succesful resolution of the conflict and these expectations are not realized, a frustration effect will be evident. Under these circumstances, the strategy of participative conflict resolution will be extinguished and confrontation strategies will be more prevalent.

In the fall of 1964, students returned to campus with an aroused social consciousness. Many students had spent the summer months in various civil rights campaigns and in election year political activities. With this new student mood and the political sensitivity surrounding the Johnson-Goldwater campaign, outside pressures mounted on the administration. Eventually, an administrative pronouncement was made limiting speech and solicitation in the Bancroft Strip. This action was clearly not in the tradition of freedom and benevolence that had characterized earlier student/administration interactions. The ruling, though in accordance with long standing University law, was viewed by students as an arbitrary and cowardly capitulation by their administrators to conservative business interests in the Bay Area. The students' abilities to promote their various social and political views were threatened by the administration ruling and students reacted in the predicted way. Students began to challenge both the ruling and the legitimacy of the administration authority to rule against freedom of speech and organization. Within a week of the administration's pronouncement, twenty campus organizations of diverse political and social persuasion had banned together to resist the administration

order. In the face of such a broad base of student opposition, the administration attempted to soften the language of the new ruling. "The administration's ruse was unsuccessful and student/administration conflict ensued. Eight students were indefinitely suspended for manning tables in the Strip in defiance of the order and 400 others demanded the same treatment since they shared the guilt of the eight (Crano, 1971)." Large protests, demonstrations were called by student spokesmen and the result was an uneasy stalemate of 3000 students and 500 Oakland policemen. Now the gravity of the situation was clear and moderate students, faculty, and administration worked to find at least a temporary solution. The eight suspended students' cases were to be arbitrated by a joint coalition committee of students, faculty, and administrators. The coalition committee was deadlocked from the start and initiatives toward a solution by the Academic Senate were rejected by the administration. Nevertheless, due to a participative mechanism for conflict management, the confrontation was beginning to decelerate.

Experimental data showed that no single event or class of events was likely to provoke high levels of conflict. Instead, conflict was found to be contingent upon a number of factors such that highest intensities of conflict depended on the compounding of administration hostility, administration authoritativeness, and peer influences in support of conflict. From this empirical evidence, one might surmise that the single event by administration which attempted to restrict activities in the Bancroft Strip would not have been sufficient to have rallied so many students against the administration. Historical analyses cooberate this experimental conclusion. The student movement gained

in momentum and cohesiveness as a consequence of administrative blunders (Crano, 1971). Probably the most damning administrative event was their misreading of the tranquility on campus brought about by participative arbitration. Rather than let the cooling-off trend continue, the administration suspended four leaders of the Free Speech Movement for actions in a campus demonstration held two months previously.

To appreciate the ramifications of this ill-conceived administrative action, it is necessary to briefly review the progress toward a solution that had been made up to that point in time (OCtober 2, 1964). Concessions were provisionally agreed to by administrative representatives which would have guaranteed a much wider range of political advocacy and organization. This progress along with the faculty resolution calling for reinstatement of all suspended students could have been the basis for a permanent settlement between the vast majority of students and their administrators. Only the most radical students, who also wanted a guaranteed sanctuary for planning illegal activities, would have been left unsatisfied. The moderate students would have disassociated themselves from the radical position and thus would have removed the power of the masses from the radical leadership. The administrative move to suspend the four leaders of the Free Speech Movement had a totally devastating and counterproductive effect. Glazer (1965) noted that as a result of this blunder, an issue that was capable of arousing students (the suspension of their leaders) was fortuitously tied to one that could not (immunity for advocacy or organization of illegal action). The action served only to fuse moderate and radical students together. In a short time, the student/

administration conflict escalated at a rate that was beyond control and virtually all scholarly activity of the university was immobilized.

Obviously, the comparisons of experimental analyses and historical analyses here have been limited to those few cases where a modicum of situational equivalency can be established. Even then, comparisons have been imprecise. To the extent, however, that gross features of simulations and field situations coincide then by convergent validation, the results of analyses have been fortified. At the same time, the theoretical and policy implications of the research deserve greater attention. In this sense, the aim of this research is not total conflict resolution but rather conflict management. The aim of this research was to investigate the mechanisms of cooperation/conflict within the university so that the form and intensity of conflict and confrontation are managed within acceptable limits. In this respect, the purpose is in accordance with the comments of Crano (1971).

> "If a major function of a college education is to prepare the student to think in an analytic, critical manner, confrontation is almost inevitable. The contradictions between societal ideals and practices will see to this. This observation, like most other facts of life, should be cause for neither praise nor blame. It is a fact, plain and simple. Those unaware of it, unfortunately, must invent various bogiemen to explain the incessant turmoil. Conflict resolution is not sought nor would it be desirable."

A final point of discussion now warrants attention. In the laboratory environment, the possibilities of overt, physical confrontation between students and administrators were excluded. It might be argued then that the threat of actual confrontation was not salient in the experimental simulation. To the extent that this argument is valid, the experimental evidence against deterrence theory is jeopordized. However, the preponderance of experimental results relevant

to this point render the above argument improbable. Subjects reported that the simulation was realistic, enjoyable, and credible. Subjects then must have presumed deterrence options in simulated form that operated with the approximate effect as those in the real world. Otherwise, the simulation would not have been judged realistic. Furthermore, if the threat of administration sanctions were perceived to be impotent within the experimental situation, one would expect a rapid escalation in the intensity of student confrontation. To the contrary, results showed a reluctance on the part of subjects to employ the more extreme forms of protest except under conditions of extreme and persistent administration provocation and peers' encouragement. Despite all this evidence, it is still true that the experimental results pertain more to attitudinal positions and behavioral predispositions in subjects then about behavior. Extrapolations of these experimental findings into a strictly behavioral domain are possible but should be treated with appropriate scepticism.

CONCLUSIONS

The preceding sections have formally presented a study of student/administration conflict. The research has intrinsic scientific value as it examined the dynamic course of student/administration interaction as a function of five dimensions of theoretical importance. Results and discussion, which address the strictly social theoretic aspects of the research, have already been presented. It is now appropriate to discuss the more pragmatic aspects of the research. This discussion begins with a consideration of the policy implications of the current research. Later sections will propose additional analyses of the data and a general evaluation of the laboratory model.

Policy Implications

Pilisuk and Hayden (1965) caution that a research finding is always double edged in what it portends for application. A project which tells the surest steps to peace and cooperation tells with equal certainty the steps which must be by-passed if peace and cooperation are shunned. It is hoped that the following policy implications are adopted by decision makers who are committed to the reduction of social conflict.

Results tend to refute the basic tenets of deterrence theory. A high profile of administration conflict toward students does not deter initiatives of conflict by students. To the contrary, administrative conflict toward students provokes further student conflict toward administration. This finding tends to support the norm of reciprocity

only operates when administration are acting contrary to students' interests. Cooperative initiatives by administration evoke at best only a state of moderate (verbal) student support. Given the negative image that students demonstrated in the initial state, it would be unreasonable for administrators to expect immediate reciprocation of active cooperation.

When students present a united opposition to administrative policy, the potential for conflict is greatest. When the student body has basic clevages of opinion, there is little possibility of them mobilizing for active conflict. In this case, subjects are giving primary concern to divisions within their peer groups with an aim of achieving team solidarity. It is possible, then, that one could manipulate perceptions of team solidarity by accentuating differences of opinion or by diminishing differences and thereby effect the intensity of student conflict. The unanimity of student peers is necessary to evoke extreme subject reactions. Apparently, a clear mandate is required before subjects feel unleased to open rebellion.

Students may initially welcome a change of decision structure that invites greater student participation in the government of the university. This new participation will create an expectation on the part of the students for more responsive university administration. When this expectation is not realized, higher levels of student conflict result. A particularly interesting effect arises in the later simulation periods. This pattern reflects a subject preference for authoritative administration so long as it is cooperative. This result suggests some avoidance of participative association with administrators when there is no conflict issue that would be served by such participation. However,

when administrators and students are engaged in conflict, administrators can moderate the intensity of student conflict through overtones of participation.

There were few significant effects reflected in the interaction events directed toward the moderate student. Students were generally most cooperative with the moderate student when administrators were participative. This result implies that moderate voices may play a significant role in management of conflict when there are participative mechanisms for channeling and arbitrating differences between students and administrators.

The extremist student is a frequent target of subjects' interaction events. The degree of student cooperation/conflict with the extremist student depends on the character of the university administration and the influence of the moderate student. Given the general distrust and alienation that students feel toward administrators, advocation of extreme cooperation is viewed with suspicion. Extreme cooperation appears as unjustified capitulation to the administration position. Extreme conflict is inappropriate when there are means other than confrontation by which students can achieve restitution. However, when an extreme voice of conflict is supported by moderate voices of conflict and when administration is beligerent and authoritative, administration is the target of high intensity conflict and the extreme student is the target of high intensity cooperation. In summary, these findings support and extend the model of Crano (1971) which suggests that massive student rebellion requires the coumpounding or provocative administration activities and environmental support.

Future Research and Evaluation

In this research, the traditional methodologies of reductionistic experimentation, field observation, and computer simulation were rejected as not well suited for the needs of a study of multifactoral examination of student/administration conflict in a quasi-real setting. The experimental simulation method was adopted and on the basis of this research it has demonstrated a great potential for social research. The method generated a great deal of data. There are two primary data sets, i.e., interaction events data and questionnaire data. Peripheral data also were gathered on subject personality characteristics, value structures, and social attitudes. Here analyses were confined to the interaction events data. The total variance of subject responses was partitioned into five factors of primary experimental interest. These data are also amenable to a great variety of other models of analysis. For example, stochastic processes can account for serial choice of interaction events by subjects. In this context, it has already been noted that the experimental procedure produces data that conform to the basic characteristics of the Poisson distribution. This characteristic of the data is now being analyzed in more detail for response sampling regularities (Smith and Hartman, in preparation). These data are also useful for empirical comparisons with field data and computer simulation output. Future research is now being planned that will exploit these data for precisely these purposes (Smith and Crano, in preparation).

The present study has demonstrated a very difficult and essential link in the chain of advancements in methodological rigor, namely, replication of the field behaviors manifest at Berkeley within the

constraints of a laboratory environment. This work has implications not only for improving the theoretical understanding of organizational conflict, but also for markedly advancing the analysis of behavioral interactions between actors through the introduction of the methodological innovation of events data. If the American university is a microcosm of American society, as some have claimed (Lipset, 1971), then this study of student rebellion should have generality for the rebellious tendencies which arise in other organizations of American society.

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APPENDIX A

Philosophy of Conflict

As noted by Dahrendorf (1959), Western political thought is marked by the coexistence of two conflicting views of society. Both of these views are intended to explain the puzzling problem of social philosophy: What gives order and stability to social life? One large school of thought holds that social order results from general agreement (cooperation) on core values which outweighs all possible or actual differences of peripheral opinions and interest. Another equally distinguished school of thought claims that social coherence and order derive from force (conflict), i.e., from the domination by some and subjection of others. The former Utopian position does not exclude conflict nor does the latter Rationalistic position preclude cooperation, but each advances claims of supremacy for their respective viewpoints. This philosophical difference is clearly evident among classical works of Aristotle and Plato, Hobbes and Rousseau, and Kant and Hegel; and it is, therefore, not surprising to find this philosophical dispute reflected in current theory.

The paragraph above suggests that the two major philosophical views of social organization are delineated by the dimension of cooperation/conflict. In accordance with this unidimensional classification scheme, the concept development and the review of literature that follow will rely primarily upon the Rationalistic view.

APPENDIX B

Theory of Conflict

Conflict has been the basis for much of the theory in the various disciplines of social science. The cause and effect are uncertain, but with this widespread theoretic application of the concept, conflict has assumed multiple definitions. Definitions of conflict have sometimes focused on terminal values and sometimes on instrumental values (Rokeach, 1968). In addition, conflict has been applied by scientists at various levels of social organization ranging from the intrapersonal domain by psychologists to the international domain by political scientists. Conflict will be a fundamental concept here in the investigation of student rebellion so we will now illustrate the various definitional positions as they appear in a selected sample of seminal scientific works.

Galtung (1965) defined conflict in terms of terminal values, as follows: "A system is said to be in conflict if the system has two or more incompatible goal states." Galtung applies this definition in the realm of international relations. Riker (1962) and Morgenthau (1967) utilize this definition provided by their colleague, Galtung, in their studies of international coalition formation as a function of pay-off divisability and goal states of power, and national interest. Miller (1944) has demonstrated allegiance to a similar definition of conflict based on terminal values but in a very different context. Miller has been influential in the development of conflict choice

theory based upon laboratory experimentation with infra-human species, e.g., approach-avoidance conflict in mice. This work is an integral part of the S-R psychological tradition and along with a large number of related studies is the subject of an excellent review by Miller (1944).

Coser (1956) defines conflict in terms of instrument values, i.e., "a struggle over values and claims to scarce status, power, and resources where the aim is to neutralize, injure, or eliminate opponents." The reliance on these instrumental values in conflict is illustrated in the formulation of the theory of class conflict (Marx and Engels, 1937). Marx and Engels postulated that a stratified socio-economic order leads inevitably to an affinity within a conflict of interest between the differentiated classes. Class theory as revised by the Neo-Marxians for application in industrial society provides a base for the study of a variety of contemporary situations characterized by collective behavior of individuals acting to forward some goal (Dahrendorf, 1959). Working within a similar definitional framework, Hirschman (1970) presents an innovative analysis of behavioral options of exit and voice in the context of sociopolitical conflict. The Hirschman approach is based on an extrapolation of the Kensian economic model of competitive choice. Likert (1961, 1967) has shown that in the industrial organization these conflict processes mitigate against the realization of optimal production and general job satisfaction.

The instrumental definition also has viability in the intrapersonal domain. According to Freud (1925, 1952), rational (secondary) psychological processing was seen to be a consequence of dynamic conflict management between two basic psychological forces, i.e., the tendency to maximize instinctual gratification emanating from the id and

simultaneously minimize guilt and punishment emanating from the superego. [See Maddi (1968) for thorough development of conflict theories in personality psychology].

Finally, at least one tradition has incorporated both a definition focusing on terminal values and one focusing on instrumental values. Lewin's (1951) theoretical formulation of conflict in the social field has been fundamental in the theoretic work of scientists of the Gestaltist tradition, e.g., Heider (1946), Newcomb (1960), Festinger (1957), and Cartwright and Harary (1956). Lewin theorized that objects are multidimensionally evaluated in terms of positive and negative valences (terminal values). In addition, he postulated a transitory variable, potency. Together, valences and potency determine a state of conflict. Extension of this tradition has examined the dynamics of psychological conflict reduction and as a consequence, the instrumental values of conflict reduction have gained greater attention (Davis, 1963). In effect then, the Gestaltist tradition has variously embraced both the notion of conflict of terminal values and conflict in instrumental values. The literature on conflict is extensive and the work cited here is illustrative of the diversity of application and general utility of the concept of conflict.

APPENDIX C

Political Violence

Political violence is the basic concept used by Gurr (1970) in his analysis of the question: Why men rebel? Political violence as described by Gurr subsumes revolution, guerilla wars, coups d'etat, rebellions, and riots. Political violence is in turn subsumed under "force" used by actors within a system to attain ends within or outside the political order. Rummel (1965) lends some empirical justification for selecting political violence as a concept for macro-analysis by showing that countries experiencing extensive political violence of one kind, e.g., riots, terrorism, coups d'etat, or rebellions, are prone to experience other kinds of political violence. This finding, however, does not preclude micro-analysis of one particular form within this universe.

It is clear that political violence implies a greater breadth of substance and a greater intensity of conflict than need or desired for study of student rebellion. Nevertheless, the concept might be expected to offer more specificity than did the concept, conflict. Experience with the literature indicates that what research exists is weighted heavily toward historical scholarship of a macro-quality. [See Rude (1964) for an excellent historical survey of urban and rural turmoil in eighteenth and nineteenth century Europe; and Masotti and Bowen (1968) for a representative survey of urban violence in modern societies.] Experimental studies dealing with socio-psychological

mechanisms of collective violence are few. Illustrative experimental works are an early study (Lewin, Lippitt, and White, 1939) on patterns of aggressive behavior in experimentally created social climates, and a later study (Polansky, Lippitt, and Redl, 1950) on behavioral contagion in groups. The relative lack of studies of this type is unfortunate as empirical foundation for further study is unsure.

It is instructive to look at taxonomic representation relating to political violence. Laswell and Kaplan (1950) provided a simple typology for revolutions which distinguishes between a palace revolution, a political revolution, and a social revolution. Eckstein (1965) proposed a typology including categories for spontaneous conflicts (riots), intraelite conflicts (coups), two forms of revolution, and wars of independence. Rummel (1965) provided probably the best empirically based taxonomy. He collated data by country and time period as to the incidence and characteristics of various types of political conflict. Data were collected on the number of riots, assassinations, coups, mutinies, guerilla wars, and so on, in a given time period and country. Correlation between these data classifications over countries and subsequent factor analysis of correlation matrix yielded consistent results irrespective of time period or set of countries. Rummel reported three clusters (turmoil, conspiracy, and internal war) which can be distinguished by two dimensions: degree of organization, and degree of popular participation. Turmoil was distinguished by relatively spontaneous, unorganized political violence with substantial popular participation including violent political strikes, riots, political clashes, and localized rebellions. Conspiracy was seen as highly organized political violence with limited participation, including

organized political assassinations, small-scale terrorisms, and mutinies. Internal war was distinguished by highly organized political violence widespread popular participation. Of the three clusters identified, the turmoil cluster appears most directly related to the topic of student rebellion.

APPENDIX D

Legitimacy. The present study of student rebellion represents a major departure from the studies of political violence . Previous work in this area has been almost exclusively concerned with political rebellion within the international political system. It is generally recognized, however, that the international system is rather loosely governed. [See the work of the social philsopher, Proudhon (1923) for a discussion of international political anarchy and the book by Hoffmann and Deutsch (1969) on the relevance of international law.] When the system has little cohesion, actors in conflict need not be so greatly influenced by a hierarchical structure of authority or legitimacy. Clearly, the exigencies upon actors in international disputes have often lead to transgressions of the international authority. The perceived costs associated with the illegal activity are not great enough to deter its occurrence. In the context of university conflict, however, civil law is well institutionalized and intranational institutions are vested with greater legitimate authority. Legitimacy might then be expected to be of greater importance with respect to the various actors within the local system.

This research has adopted the definitional position of Gurr (1970) that a regime (administration) is legitimate to the extent that citizens (students) regard it as proper and deserving of support. A behavioral manifestation of legitimacy is the compliance of students with directives of the regime that flow from a generalized sense of identification

with regime values. Behavioral compliance, however, is a spurious indicator of legitimacy when real or perceived coercive forces are operative. Under coercive pressures, rebellion may be suppressed out of fear that sanctions for noncompliance may be imposed. In summary, rebellion can have both latent and active forms. The present research has attempted to account for the active forms of rebellion which are manifested inspite of the countervailing of coercion. The rebellion thus measured should provide a conservative estimate of the total disposition toward rebellion.

APPENDIX E

INTERACTION EVENTS: A CODING AND SCALING MANUAL

INTRODUCTION

This manual will define procedures for systematical coding and scaling of interactions between social units. These procedures are designed to apply equally well to both written and spoken communications.

Part 1: CODING

Coding is a process for reduction and standardization of raw data. Coding is an essential stage in the refinement and quantification of data. Ideally, a unit of data conveys a single bit of information. The content of verbal exchange between social units, however, is usually complex and in the form of an information package. The package is made up of several bits of information. For the purposes of data handling and empirical analysis, it is necessary to disaggregate the information package into its essential units of information. The interaction event will constitute the basic unit of information, and all raw communications data will be transformed into this basic unit.

The interaction event is a behavior within the system that describes an activity by an actor directed toward a target that is qualified with respect to issue-area and date (Azar, 1970). Most social exchanges can be made to correspond to this definition and format of an interaction event. The function of coding rules is to explicityly define the process by which verbal communications are transformed into discrete interaction events. If properly designed, massive archives of

events can be easily managed by computer programs. To facilitate computer handling of events data, a standardized format for an interaction event has been decided upon. In practice, verbal communications can be coded in standardized form on computer coding sheets. Each row on these sheets contains 80 spaces that correspond to the 80 columns of a computer card. The elements that constitute a single interaction event are entered on a single row of the coding form in the following manner:

Columns	
1 - 2	month; 01=Jan., 02=Feb., ... 12=Dec.
3 - 4	day; 01=1st, ... 31=31st.
5 - 6	hours; 01=1 a.m., 12=12 noon, 13=1 p.m., 24=12 midnight.
7 - 9	actor code (See Appendix B)
10 - 12	target code (See Appendix B)
13 - 14	source code
15 - 29	activity; an alphabetic description of the verbal or physical action of the actor.
30	size scale value
32	authoritative/participative scale value
34	cooperation/conflict scale value
35 - 80	issue-area; an alphabetic description or elaboration of the other elements of the event.

Coded events can then be directly transferred to the standard computer input medium, the 80 column computer card.

The next section illustrates the five elements that together constitute an interaction event. We include both events that are easily transformed into interaction event form and those that are more problematic. Special rules have been developed to deal with the special problems that arise in the coding process. As a result, the coding process minimizes error that would otherwise be troublesome for data users.

DATE

Date is coded as the calendar day on which the event is reported in the source document. Month, day, and hour are coded as consecutive 2 digit numbers. According to this coding scheme, April 12, 3 p.m., would be coded as 041215. Note that the time of day is recorded to correspond to a 24 hour clock. Missing information is represented by zero entries.

A special problem of multiple dates is illustrated by the following news release.

> Jan. 3 - A student group claims it was responsible for the picketing of the administration building on Jan. 2.

This event includes two dates; the date of the reporting (Jan. 3) and the date of the picketing (Jan. 2). The coding rule for date requires that the reported date be used as the date for the event. The event is recorded in coded format as follows:

0103001002000 1CLAIM PICKETTED

ACTOR

The actor is a person, group, organization, or other entity which initiates an activity. Consider the following illustrative example:

Oct. 1 - Chancellor Strong refuses student demands.

The activity in this case is refuse and the actor or initiator of that refusal is Chancellor Strong. Chancellor Strong is by definition the actor in this event. In coding events, it is convenient to assign a discrete numeric code to each actor within the social system. For this example, the proper numeric code for the actor (Chancellor Strong) is 203.

10010020310001REFUSE STUDENT DEMANDS

The problem of an event initiated by more than one actor is common.

Nov. 4 - Professor Martin and several students denounce the administration's attitude toward student rights.

With events having multiple actors, the event is disaggregated and coded for each actor, i.e., once for Professor Martin and once for students.

11040032520001DENOUNCE ATTITUDE TOWARD STUDENT RIGHTS

11040010020001DENOUNCE ATTITUDE TOWARD STUDENT RIGHTS

Actors and targets may seem to be reversed for the coding of events reported in the passive tense.

Nov. 14 - President Kerr received a list of demands from a student organization.

In this case, President Kerr is the target and the student organization

is the actor. Remember that the actor initiates the activity and the activity is expressed as a present tense, action verb. In this example, "demand" is the activity word.

111400100204ODEMAND LIST OF DEMANDS

Events by or directed to organizational spokesmen are problematic. The critical judgment that must be made is whether the statement reflects a personal view or the view of the organization.

> Dec. 19 - FSM steering committee member Steve Weisman accused the police of excessive violence.

In this case, Steve Weisman is judged to be speaking for the actor, FSM, and should be coded accordingly. The name of the individual can be included in the issue-area. If, however, it is clear that an individual is not speaking for an organization, then the individual would be the actor. For example, consider the following report:

> Feb. 18 - Dean Towle said that the students were impudent at today's meeting.

This event serves to illustrate another rule relating to actor identification. It may appear as though the event embodies 2 activities; Dean Towle's statement, and student impudence. For reported events of this kind, only the statement is coded. The event is not the students being impudent, but rather Dean Towle's accusation. In this event, the activity is "charge" or "accuse" and the actor is Dean Towle (201).

021800201100O1CHARGE IMPUDENT AT MEETING

TARGET

The target is a person, group, organization, or other entity toward which an activity is directed. The target is usually the direct object of the principle verb, i.e., the social unit toward whom something is said or done.

Sept. 30 - Student charges administrators are a bunch of bastards.

The activity in this case is charge. Since the charge is directed toward administrators, the administration as a collective unit is the target of this event. The general administration code is 200.

093000100200001CHARGE BUNCH OF BASTARDS

Remember that the target is that entity toward which an activity is directed. Consider the following:

Feb. 3 - The Regents asked the administration to suspend demonstrating students.

This event has two targets. The administration is the principle target and students are an indirect target. The Regents ask the administration. The administration is the direct object of the activity, hence, the direct target. However, the action is an indirect way of getting at the students. The Regents want the administration to suspend the demonstrating students. This event should be disaggregated and coded for both the direct and indirect targets. The first event represents the activity of the Regents asking the administration; the second event represents the activity of the Regents opposing the students. Further elaboration of events can be made in the issue-area.

02030000220001ASK SUSPEND DEMONSTRATING STUDENTS

02030000210001OPPOSE ASK ADMINISTRATION TO SUSPEND DEMONSTRATING STUDENTS

The identification and coding of indirect targets is sometimes difficult. To aid in coding of indirect targets, the following rule has been adopted: An indirect target may be considered present in events when a social entity other than the direct target(s) is mentioned and is judged to be affected by the action.

Some events will describe an activity by a group directed toward itself. In these situations, the target is coded self (004).

Nov. 15 - Students for Goldwater meet to discuss strategy.

11150011400401MEET DISCUSS STRATEGY

The group, Students for Goldwater (actor), is directing the activity (meet) toward itself (004).

ACTIVITY

The activity is defined as those actions, reactions, or interactions which are precipitated by clearly defined actor(s) and directed toward clearly identified target(s). The activity is the "happening" on which the event is based. Usually, the activity is best represented by the principle verb in a statement of the event.

Oct. 1 - Chancellor Strong meets with students to discuss demands.

The "happening" is the meeting of Chancellor Strong and the students. The activity, then, is meet. For coding purposes, the activity is represented by the best present tense, action verb that describes the essence of the event.

10010020310001MEET	DISCUSS DEMANDS

Some events in a source contain two or more distinct activities.

Oct. 20 - Students occupy administration offices to protest suspension of demonstrating students.

This event has two activities, occupy and protest. It is called a multiple activity event and should be disaggregated and coded as two events. In coded form, these events are represented as the following:

10200010020001OCCUPY	OFFICES TO PROTEST SUSPENSION
10200010000401SUPPORT	SUSPENDED STUDENTS & OCCUPY OFFICES

Another example of this type follows:

Oct. 18 - The administration suspends three students and threatens to suspend all other demonstrators.

In coded form, these events appear as the following:

10180020010001SUSPENDS 3 FOR DEMONSTRATING

10180020010001THREATENS TO SUSPEND IF DEMONSTRATING

Some multiple action events have activities which are so similar that they should not be disaggregated but coded as one event.

> Dec. 14 - FSM protested the administration action, accusing them of blatant disregard for student civil rights, and threatening to take violent measures.

This is a multiple verbal action with several verbal actions from one actor directed toward one target. In this case, the most hostile verbal action is identified and coded. This differs from multiple physical actions and multiple mixed (physical and verbal) actions in that only one activity (event) is presumed to have occurred. This event would be coded as follows:

12140011030001THREATENS VIOLENT MEASURES

In coding the activity, it is suggested that the coder use the same verb used by the source. It should be put in the present and active tense. Retaining the verb used by the source helps to remove the bias that might be imposed by coder interpretation. There are, however, special cases where this rule does not apply.

Special Cases

1. When the event is the signing of an agreement, conclusion of an agreement or pact, etc., the verb "agree" is used.

> Oct. 1 - Student leaders and President Kerr sign an agreement on where political materials may be distributed.

In this case, "agree" not "sign" should be coded as the activity. The above example also illustrates another type of problem. It is not clear who initiated the action. Student leaders and President Kerr were

simultaneous actors and targets of the same activity, therefore, the event should be coded twice, once with student leaders as the actor and once with President Kerr as the actor.

100100100204O1AGREE MATERIALS DISTRIBUTED

100100204100O1AGREE MATERIALS DISTRIBUTED

2. If the sentence structure of a reported event is complex, then the verb may not be the best nonbiased description of the activity. Avoid using nondescript activity verbs like begin, continue, and say. Try to give a word giving the type of activity and emotion associated with the activity.

Oct. 20 - President Kerr begins enforcement of nonstudent loitering ordinance.

In this example, begins is the action verb but does not reveal the nature of the social interaction. A better choice is the word, enforce, which is extracted from the predicate.

102000204100O1ENFORCE LOITERING ORDINANCE

Another example follows:

Oct. 25 - Mario Savio calls President Kerr a "fat cat".

In this case, the active verb calls does not present the animosity implicit in the event. Another word, condemn, better represents the event.

102500109204O1CONDEMN FAT CAT

SOURCE

The source of an event is the document, newspaper, journal, or index from which an event is taken. For laboratory and field observation of interaction events, the source is ~~coded as~~ the experimenter.

The university events upon which this research project is based are of two sources. All field events are derived from a single source, The California Monthly journal. The research staff of the California Monthly has compiled a chronology of activities at Berkeley for a period that encompasses the escalation and deescalation of the Free Speech Controversy. This material gives comprehensive and relatively objective coverage to social interactions with the University of California, Berkeley, campus for the time span; September 10, 1964 to January 10, 1965. In essence, this source is an index of events which were reported by many diverse sources and related to the free speech issue and the Berkeley student revolt.

All events evoked in the laboratory investigations were coded by trained experimenters. The experimenters themselves are the source of the events which they coded.

ISSUE-AREA

The issue-area is a complimentary category which identifies important components of an event other than actor, target, activity, or time. It provides elaboration of the event. In the issue-area, one can account for the setting within which the event took place, individual spokesmen, quantities involved in interaction, and other facts that add to the understanding of the event. The major constraint for coding of the issue-area is that it be condensed into 46 characters. This space limitation has warranted a list of standard abbreviations. By use of these standard abbreviations, the issue-area can carry more information. (See List of Abbreviations at back of this Appendix).

Consider the following example:

> Oct. 15 - Academic Senate agrees with administration to appoint an ad hoc committee to hear the cases of suspended students.

10150030420001AGREES	APPOINT AD HOC FOR SUSPENDED STU CASES

In this case, the issue-area provides necessary elaboration upon the bases of agreement between actor and target. Student is a frequently used word that is always abbreviated STU.

Part 2: SCALING

Scaling is the means by which data are measured along some dimension or set of dimensions. In the present context, scaling procedures will be employed that measure coded interaction events on a dimension of decision structure (participative/authoritative) and a dimension of social exchange (cooperation/conflict). From scaled interaction events, we can then proceed with various statistical analyses to make inferences about the nature of social interaction.

The coding scheme as described in earlier sections has been designed to have great versatility. Coded events data are amenable to various scaling models. All numeric codes can be translated into their literal equivalent by a simple computer program. For example, events can be generated on computer cards for convenient Q sort scaling. By another scaling procedure, a coded event in its entirety defines a concept that can be rated on a semantic differential questionnaire. This latter procedure has been employed throughout the course of this research project. The culmination of these scaling efforts has produced reliable scales for both the dimensions of decision structure and social exchange. These scales have apparent validity as they show convergence to social science theory and previous empirical research.

SCALE OF COOPERATION/CONFLICT

McClelland (1970) has distinguished 20 levels of conflict between nation states. Azar (1970) has reported the development of a 13-point interval scale of cooperation/conflict which describes interaction events both within and between nation states. The present research project on campus rebellion has required an independent scaling effort. Results of the recent scale development, however, demonstrate certain features common to the 13-and 20-point scales (Azar, 1970; and McClelland, 1970). Null intensity levels are represented by activities void of actor cooperation/conflict. Low intensity levels are represented by verbal activities of cooperation/conflict. Medium intensity levels are represented by physical demonstration of cooperation/conflict. High intensity levels of cooperation/conflict are represented by transgressions of social-civil norms of legitimacy. These empirical categories fall naturally into a 7-point scale of cooperation/conflict. Interaction events are readily discriminable with respect to the 7-point scale as evidenced by an intra-scale reliability of R = .82. In addition, the scale represents a symmetry and clarity lacking in the works of McClelland (1970) and Azar (1970).

Scale values are assigned by evaluation of event content. Brief description of scale values and their distinguishing content are given below.

Scale Value	Content
1. = Extra-legal cooperation;	participation or support for a target that transcends social or legal norms of propriety.
2. = Physical cooperation or support;	getting out and physically working for someone or something, acting in a manner which indicates cooperation.
3. = Verbal cooperation;	support, agreement, or requests for support implying a favorable attitude toward target; laudatory statements and pronouncements of good will toward the target.
4. = Neutral point;	actions tending neither toward conflict nor cooperation; statements of fact, not evaluative beliefs or attitudes; announcements of a factual nature.
5. = Verbal conflict;	charges, accusations, warnings, demands all of which imply a hostile, unfavorable, or threatening attitude toward the target; pronouncements of ill will.
6. = Physical conflict;	marches, rallys and the like which go beyond the mere verbal pronouncements of cognitive dispositions; overt physical behavior.
7. = Extra-legal conflict;	conflict behavior that transcends legal or civil norms of propriety.

The next section illustrates these scale values with events from actual scaling experience. Through consideration of these events, the content of scale values are further clarified.

ILLUSTRATION OF SCALE VALUES

Scale Value = 1

Mar. 12 - Faculty members join student protesters in destroying records in Dean's office.

0312003001000 1JOIN 1PROTESTERS IN DESTROYING RECORDS

In this event, faculty members have joined protesting students in an action which is clearly illegal. By their actions, faculty have physically demonstrated support of students by means that transcend social norms. This event implies extreme cooperation on the part of faculty toward students. Some other examples of events at scale value = 1 are the following:

Mar. 21 - Attorney Gildenstern joins a students' illegal sit-in today.

0321000501000 1JOIN 1ILLEGAL SIT-IN

Apr. 1 - Joan Baez helps student demonstrators blockaid the Dean of Women's Office.

0401000181000 1BLOCKAID 1DEAN OF WOMEN

May 4 - Dean Jones aids Officer Doe in shaving the heads of students.

0504003400030 1AIDS 1SHAVING HEADS OF STUDENTS

Scale Value = 2

Nov. 1 - Administration officials permit student use of university mimeographic equipment to print leaflets.

1101002001000 1PERMIT 2USE OF UNIVERSITY MIMEOGRAPH

In this event, administration officials have physically cooperated with students by permitting them to use the university facilities. Note

that this event has physical, not just verbal implications. Some other examples of scale value = 2 are the following:

May 8 - The ACLU intervenes on behalf of suspended students.

05080000810001INTERVENES 2BEHALF OF SUSPENDED STUDENTS

Apr. 1 - The American Legion donates money to pay off-duty policemen for extra law enforcement.

04010051003010DONATE 2MONEY FOR LAW ENFORCEMENT

Jan. 3 - Association of Conservative students joins the Young Marxists in a coalition to present their demands to the administration.

01140015015101JOINS 2COALITION

Scale Value = 3

Jan. 4 - Bertrand Russell commends student actions.

01040003010001COMMENDS 3STUDENT ACTIONS

This is an event showing verbal support by Bertrand Russell for the students. It implies a favorable attitude toward the students (100). Some other examples of events at scale value = 3 are the following:

Nov. 12 - The administration applauds police handling of demonstrators.

11120020000301APPLAUDS 3HANDLING OF DEMONSTRATORS

Dec. 22 - Students and administrators agree to cease activities of confrontation.

12220010020001AGREE 3CEASE CONFRONTATION

Jan. 15 - The administration supports Regent rulings on suspended students.

01150020000201SUPPORTS 3STUDENT SUSPENSION RULINGS

Scale Value = 4

Jan. 13 - Top administrators meet to discuss the student current issues.

01130020000401MEET 4DISCUSS ISSUES

Scale Value = 6

Jan. 17 - Students picket Dean Towle's office in protest of student arrests.

01170010020101PICKET 6OFFICE IN PROTEST OF ARRESTS

This is an event involving physical conflict within the limits of civil and criminal law. Picketing is an overt physical behavior expressing conflict toward the administration. Some other examples of scale value = 6 are the following:

Feb. 1 - A number of student groups rally outside the administration building.

02010010020001RALLY 6ADMINISTRATION BUILDING

Nov. 15 - The administration suspends 7 demonstrating students.

11150020010001SUSPENDS 67 DEMONSTRATORS

Oct. 17 - The administration dissolves the faculty-student committee on university unrest because of its deviation from chartered functions.

10170020030001DISSOLVES 6COMMITTEE ON CAMPUS UNREST

Scale Value = 7

Jan. 3 - A group of students broke into the Dean of Men's office and burned his files.

01030010020501BURN 70FFICE FILES

This event manifests extreme physical conflict. It is an act that transcends legal provisions for civil dissent or application of civil sanctions. Some other examples of events at scale value = 7 are the following.

Dec. 9 - Campus police arrest 15 students and 4 nonstudents for passing out leaflets on campus.

12090000310001ARREST 719 FOR PASSING OUT LEAFLETS

Nov. 5 - A group from Student Lib block the doors to the Dean's Office all afternoon.

This event is of a neutral character in that it does not clearly imply either conflict or cooperation. It is a statement of a factual nature; it does not represent an evaluative position or attitude. Some other examples of events at scale value = 4 are the following:

Oct. 4 - FSM announces a meeting at 4 p.m. today.

10040011099901ANNOUNCES 4MEETING AT 4 P.M.

Jan. 6 - The administration asks students for more time.

01060020010001ASK 4FOR MORE TIME

Oct. 14 - The administration appoints three faculty members to look into student demands.

10140020030001APPOINTS 4LOOK AT STUDENT DEMANDS

Scale Value = 5

Feb. 1 - Student leaders demand the right to pass out literature on campus.

02010010020001DEMAND 5RIGHT TO DISTRIBUTE LITERATURE

This is an event involving verbal conflict. It implies a hostile, unfavorable or threatening attitude toward the target. The students are demanding a right from the university. The use of the word "demand" is thought to engender conflict because unlike "ask" or even "urge", it implies a threat of retaliation if the demand is rejected. Some other examples of events at scale value = 5 are the following;

Oct. 15 - The administration threatens to suspend all students participating in a strike.

10150020010001THREATENS 5SUSPEND THOSE WHO STRIKE

Nov. 6 - Students Against Facisim accuses police of using Gestapo-like tactics.

11060015200301ACCUSES 5GESTAPO-LIKE TACTICS

Mar. 7 - The local Rotary Club denounces demonstrating students as stooges for the world-wide communist movement.

03070006010001DENOUNCES 5DEMONSTRATORS AS COMMUNIST STOOGES

1105001612010 1BLOCK 7OFFICE DOORS

Jan. 7 - An irate citizen's group raids and destroys the students' recently founded Freedom City.

0107009991000 1RAIDS 7FREEDOM CITY

SCALE OF ORGANIZATIONAL DECISION STRUCTURE

Likert (1961, 1967) has substantively distinguished four kinds of administration. An authoritarian organization, whether exploitative or benevolent, is one in which both broad policy and specific decisions are made almost exclusively at the upper administrative levels. In an exploitative authoritarian organization, the administration is solely concerned with the welfare of the organization. In a benevolent authoritarian organization, the administration gratuitously concerns itself in a paternalistic manner with the welfare of its members. Two other types of organizations are the consultative and the participative. In the consultative organization, the ideas of those individuals who will be affected by an imminent policy decision are ascertained prior to the setting of that policy. However, the final decision is ultimately made in upper administrative levels. In this regard, a consultative organization has authoritarian overtones. In the participative group organization, the guiding principle for decision making is that they are made by those individuals in the organization who are directly affected by them. In a participating group, "decision making is widely done throughout the organization, although well integrated through linking processes provided by overlapping groups. Decentralization with integration is the key to a participating group organization."

Upon inspection, these four organization types constitute a dimension of authoritative/participative decision structure. This dimen-

sion is relevant only to interaction events emminating from an actor of greater authority toward a target of lesser authority. In the context of the university system, the superior/subordinant roles are quite clearly defined. Administration members are capable of making overtures toward participative decision making. Students, on the other hand, have no administrative power to share.

Events from administration sources can be assigned a discrete scale value on this dimension of decision structure. The scale value will identify the content of the event on the dimension. The content associated with scale values on a dimension of decision structure are given below.

Scale Value	Content
1. = High authoritative	dictatorial; a declaration with no pretences as to having been made indeference to the target. Decision making in the classical model of management; unilateral.
2. = Benevolent authoritative	a decision made solely on the authority of the maker, but seemingly made with the interests of well-being of those affected at heart; an authoritative decision coupled with a gesture of good will toward the target.
3. = Neutral point	events that do not indicate a means of decision making.
4. = Consultative	the decision-maker consults those affected by the decision but retains full power to make the final decision.
5. = Participative	democratic; parties involved have the power to determine the outcome or to make the decision.

Again it is inciteful to consider some illustrative cases from scaling experiences. Scale values on this dimension are coded in

column number 32.

ILLUSTRATION OF SCALE VALUES

Scale Value = 1

Sept. 16 - Dean Towle prohibits student distribution of political literature at the Bancroft entrance.

091600201100O1PROHIBITS 1 6DISTRIBUTION POLITICAL LITERATURE

This activity implies an extremely authoritative position by the university administration. The administration has made a decision without apparent regard for, or consultation with, those who will be affected by the decision. The idea of prohibition serves the interest of the administration and is exploitatively forced upon students.

Other examples of events at scale value = 1 are the following:

Sept. 23 - President Kerr issues a statement to students saying that the University is not to be used for political causes.

092300204100O1STATE 1 4UNIVERSITY NOT POLITICAL

Sept. 30 - Chancellor Strong suspends eight students for political activities.

093000203100O1SUSPENDS 1 68 STUDENTS

Oct. 1 - Administration refuses student demands.

100100200100O1REFUSES 1 6STUDENT DEMANDS

Scale Value = 2

Oct. 2 - President Kerr states that new University regulations for students are more liberal.

100200204100O1STATES 2 4REGULATIONS MORE LIBERAL

This event shows some tendency on the part of the administration to

give consideration to the student position. It is clear that the administration maintains full authority to make and enforce regulations. At this level, however, they temper this authoritative position with benevolent gestures and tokens of good will. Other examples of events at scale value = 2 are the following:

Oct. 24 - Administration states to students that it will continue to act in the best interests of the majority of students.

10240020010001STATES 2 4ACTS FOR MAJORITY INTERESTS

Sept. 28 - Chancellor Strong concedes to students the freedom to distribute campaign literature at Bancroft entrance.

09280020310001CONCEDES 2 2FREEDOM TO DISTRIBUTE LITERATURE

Oct. 12 - Chancellor Strong appoints three students to a special committee on Campus Political Activity (SCPA).

10120020310001APPOINTS 2 43 STUDENTS TO SCPA

Scale Value = 3

Oct. 2 - President Kerr agrees to meet with student demonstration spokesmen.

100220410001MEET 3 4STUDENT SPOKESMEN

This event is relatively neutral with respect to authoritative/participative dimension of the decision process. The willingness of Kerr to meet could mean a serious effort at consultation with students or it could mean a superficial display of benevolence. The report of the outcome of the meeting will probably give more information and be represented by another interaction event. This event is neutral, it simply reports an agreement to meet. Other examples of events at scale value = 3 are the following:

Oct. 23 - Administration and student representatives agree to cease confrontation tactics for 3 days.

10230020010001AGREE 3 3CEASE CONFRONTATION FOR 3 DAYS

Oct. 25 - Chancellor Strong appeals for student reasonableness.

10250020310001APPEALS 3 5STUDENT REASONABLENESS

Scale Value = 4

Oct. 17 - Dean Towle seeks the consultation and advice of student leaders.

10170020110001CONSULT 4 4STUDENT LEADERS

In this example, students are being consulted. Information that is gained from this consultation will be subsequently evaluated for its implications on a pending decision. The administration retains full control over the final decision. The distinguishing characteristic of events at this level is the deference to the student position prior to administration committment to a decision. Other examples of events at scale value = 4 are the following:

Oct. 2 - Administration personnel mingle with student demonstrators to establish rapport and meaningful dialogue.

10020020010001MINGLE 4 4RAPPORT

Oct. 4 - Administration research staff conducts a survey of student opinions on University policy.

10040020010001SURVEY 4 4STUDENT OPINIONS ON POLICIES

Oct. 23 - After discussion with student leaders, the administration decides to drop all charges against students.

10203002001000 1DROPS 4 2CHARGES

Scale Value = 5

Oct. 16 - Chancellor Strong requests that basic issues of conflict be arbitrated by elected representatives from the two sides.

10160020310001REQUESTS 5 4DEMOCRATIC ARBITRATION

Events at this level demonstrate a very democratic decision making structure. Role expectations mitigate against absolution of all authoritative relationships between administrators and students, but

certain events can reflect this extreme deference to democratic participation in decision making. Other examples of events at scale value = 5 are the following:

Nov. 12 - Administration will defer its authority on student suspensions to a university referendum vote.

1112002001000 1DEFER 5 4REFERENDUM ON STUDENT SUSPENSIONS

Jan. 14 - Administration makes provisions for full student participation in the scheduling of University entertainment.

0114002001000 1PROVIDE 5 2PARTICIPATION IN ENTERTAINMENT SCHEDULING

ABBREVIATION LIST

ACAS	Academic Council of the Academic Senate
ACCP	Association of California State College Professors
ACED	Ad Hoc Committee to End Discrimination
ACLU	American Civil Liberties Union
ADM	Administration
AFT	American Federation of Teachers
AIC	Academic Information Committee
AR	Alumni Rep - Hooper
AS	Academic Senate
ASCS	Ad Hoc Academic Committee on Student Suspensions
ASUC	Associated Students of the University of California
AYR	Advocate Young Republicans
BAFT	Berkeley American Federation of Teachers
BAUP	Berkeley Chapter of the American Association of University Professors
BHSA	Boalt Hall Student Association
BT	Bancroft Telegraph
CAF	Committee on Academic Freedom
CDC	Council of Department Chairmen
CI	Commuter - Independent
CORE	Campus Congress of Racial Equality
CSG	California Students for Goldwater
CUW	Committee on University Welfare

DC	Daily Californian
DCDC	State Board of Directors California Democratic Council
EEC	Emergency Executive Committee
FAC	Faculty
FCSC	Faculty Committee on Student Conduct
FSM	Free Speech Movement
GCC	Graduate Coordinating Committee
IFC	Inter-Faith Council
IFSS	Inter-Faith Staff Workers and Student Leaders
MRH	Mens Residence Halls
N	North
PB	Particle Berkeley
REP	Representative
SCAP	SCPA
SCAS	Student Conduct Committee of Academic Senate
SCPA	Study Committee on Campus Political Activity
SNCC	Student Non-Violent Coordinating Committee
STU	Students
TA	Teaching Assistant
UA	Undergraduate Association
UBOR	University Board of Regents
UEGS	University Employed Graduate Students
USI	University Society of Individualists
USLO	University Students for Law and Order
YR	Young Republicans

ACTOR/TARGET LIST

	Student
100	General
101	ACED
102	Slate
103	ASUC
104	MRH
105	AR
106	Goldberg, A.
107	SNCC
108	CORE
109	Savio
110	FSM
111	Weinberg
112	USI
113	DC
114	CSG
115	Wilson ASUC
116	AYR
117	PB
118	Powell
119	Stapelton
120	GCC

121 BHSA

122 Aptheker

123 YR and Coll. Fed. YR

124 Weismann FSM

125 USLO

126 UEGS

127 Martin Roysher

128 UA

129 Robert Dussault

ACTOR/TARGET LIST

Administration

200	General
201	Toule
202	Dr. Pope
203	Strong
204	Kerr
205	Williams
206	Sherriffs
207	Searcy
208	SCAP
209	Boulton
210	Cunningham
211	Brode
212	Kidner
213	Elberg
214	VanHouten
215	Martin Meyerson

ACTOR/TARGET LIST

Faculty

300	General
301	Leggett
302	Sellers
303	FCSC
304	AS
305	Ross
306	Cheit
307	Kadish
308	Heyman Committee
309	Lipset
310	Searle
311	SCPA Reps.
312	ASCS
313	CDC
314	Scalapino
315	Feuer
316	BAUP
317	AIC
318	Jacobus Ten Broek

ACTOR/TARGET LIST

Other

001	Oak. Trib.
002	Regents
003	Police
004	Selt
005	Gov. Brown
006	Father Fisher
007	Gov. Reps.
008	ACLU
009	ACCP
010	IFSS
011	YR
012	San Diego Chamber of Commerce
013	ACLU
014	Town and Gown Club
015	Daily Californian
016	Burnstein
017	DCDC
018	Joan Baez
019	Robert Truhaft
020	Judge Crittenden
021	Dr. Terry James

022	Labor Unions
023	Cal. Alumni Committee
024	Dist. Attor. Coakley
025	BAFT
026	Hospital
027	Student Attorneys
028	Newsmen
029	Attorney Hoffman
030	Bertrand Russell
031	Benny Butano
032	James Baldwin
033	James Farmer
034	Senator Hugh Burns
035	ACAS

APPENDIX F

Directions

People differ in the ways they understand social events. These differences in understanding may be very important in the relationships between people.

On the pages that follow are sentences that state single events in history. Each event describes a behavioral relationship between two persons or groups. For each event you are asked to rate the level of cooperation or conflict between the two persons or groups that are underlined. Consider each item separately.

Rate each event according to the following 7-point scale:

1 = High Cooperation

2 = Medium Cooperation

3 = Low Cooperation

4 = Neither Cooperation nor Conflict

5 = Low Conflict

6 = Medium Conflict

7 = High Conflict

Enter your ratings on the answer sheet provided. The format in which you enter your answers will be explained by your experimenter.

1. Sept. 10 - Student editorial calls for rebellion open and fierce against the University administration.

2. ***Sept. 16 - Dean of Students (Toule) prohibits student tables at Bancroft entrance and off campus political activity.

3. ***Sept. 17 - Dean of Students (Toule) seeks the consultation and advice of student leaders.

4. Sept. 17 - Student leaders meet with Dean of Students (Toule) to discuss new policy governing the Bancroft strip.

5. Sept. 17 - Students ask Dean Toule for permission to distribute any type of political literature.

6. ***Sept. 17 - Dean Toule answers the students stating the policy is clear and must be enforced.

7. ***Sept. 17 - Dean Toule charges that students at the meeting were impudent.

8. Sept. 18 - Students petition Dean Toule for use of the Bancroft strip under certain conditions.

9. Sept. 18 - Students agree among themselves to picket, rally, and use civil disobedience if ban of activities at the Bancroft strip remains firm.

10. Sept. 21 - Students hold protest vigil against administration on the steps of Administration Hall.

11. ***Sept. 23 - Chancellor Strong issues statement to students saying that the University is not to be used for political causes.

12. ***Sept. 28 - Chancellor Strong concedes to students the freedom to distribute campaign literature at the Bancroft entrance.

13. Sept. 28 - Student government denounces general student heckling and disruption at this stage.

14. Sept. 29 - Students defy administration by illegally erecting tables at the Bancroft strip.

15. ***Sept. 29 - Administration with police inform students tables are illegal and ask identification of students manning tables.

16. ***Sept. 30 - Administration requests those students identified as manning tables to appear for discipline.

17. ***Sept. 30 - Chancellor Strong warns students that administration will not allow violation of law on campus.

18. ***Sept. 30 - Chancellor Strong indefinitely suspends eight students for political advocacy in violation of University policy.

19. Sept. 30 - Student (Savio) charges administrators are a bunch of bastards.

20. Sept. 30 - Students create a student Free Speech Movement (FSM).

21. Oct. 1 - Students announce rally against administration to be held on the steps of Administration Hall at noon.

22. Oct. 1 - Students call for the support of the whole student body for suspended students.

23. Oct. 1 - Students defy administration and erect tables for political purposes.

24. ***Oct. 1 - Administration has police arrest student (Weinberg) for trespassing.

25. Oct. 1 - Students chant to police to release him (Weinberg).

26. Oct. 1 - Students surround police car containing student (Weinberg) and arresting authorities.

27. Oct. 1 - From the top of a police car, student (Savio) urges all students to join in protest.

28. ***Oct. 1 - Chancellor Strong meets with students (Savio and Powell) to discuss demands.

29. ***Oct. 1 - Chancellor Strong refuses student demands.

30. Oct. 1 - Students conduct a "sit-in" at the Dean of Students office to show support for suspended students.

31. Oct. 1 - Students demand administration release Weinberg and end suspension of students.

32. ***Oct. 1 - Twenty police take stations opposing students at the foot of the Administration Hall main stairway.

33. Oct. 1 - Inside students agree with students gathered outside to form a united front outside.

34. Oct. 1 - Student demonstrators clash with anti-demonstrators.

35. Oct. 1 - Student Government appeals to students to stop demonstrations and not oppose administration.

36. Oct. 1 - Student University Society of Individualists support the purpose of student "sit-ins".

37. Oct. 2 - Students conduct all-night vigil in protest of administration policies.

38. ***Oct. 2 - Administration personnel mingle with student demonstrators to establish rapport and meaningful dialogue.

39. ***Oct. 2 - Administrators and police plan to arrest all students refusing to disperse.

40. ***Oct. 2 - Police march against students to positions at Administration Hall entrances.

41. Oct. 2 - Students ask to meet with President Kerr.

42. ***Oct. 2 - President Kerr agrees to meet with student demonstration spokesmen.

43. ***Oct. 2 - President Kerr states that new University regulations for students are more liberal.

44. Oct. 2 - Student (Savio) reads to students (7000 total) protest agreement reached with administration.

45. ***Oct. 3 - Administration proposes financial aid be given to students for their legal defenses in civil courts.

46. ***Oct. 4 - Administration research staff conducts a survey of general student opinions on University policy.

47. Oct. 5 - Students rally to claim victory over administration.

48. Oct. 5 - Student (Savio) states to administration whole war is far from over.

49. Oct. 5 - Students collect funds to pay for damaged police car.

50. Oct. 8 - Student young republicans charge Free Speech group is not representative of student groups.

51. Oct. 8 - Student liberals and student conservatives fight over tactics to be employed.

52. Oct. 9 - Student Free Speech group excludes conservative student groups from its planary sessions.

53. ***Oct. 10 - Chancellor Strong appoints three students to a special Study Committee on Campus Political Activity (SCAP).

54. Oct. 12 - Student members of Free Speech group maintain SCAP appointments need student approval.

55. ***Oct. 15 - Study Committee on Campus Political Activity (SCAP) agrees with Free Speech group to participative, democratic modifications of SCAP.

56. ***Oct. 16 - Chancellor Strong suggests the basic issues of conflict with students be resolved by a University referendum.

57. ***Oct. 18 - Administration denies Constitutional (First Amendment) Rights to students.

58. ***Oct. 18 - Administration with police attack students engaged in a legal picket.

59. Oct. 19 - Students debate among themselves whether they should "sit-in" at Administration Hall.

60. Oct. 19 - Free Speech group asks for student petition of support.

61. ***Oct. 20 - Administration grants the Free Speech students access to University mimeograph facilities.

62. Oct. 20 - Student teaching assistants strike to show solidarity with the Free Speech Movement students.

63. Oct. 20 - Students strike against administration free speech regulations.

64. Oct. 21 - Students for Conservative Action disassociate themselves from current disruptive tactics of Free Speech students.

65. Oct. 21 - Anti-strike students demonstrate against pro-strike students saying that their education is being disrupted.

66. Oct. 21 - Anti-strike students and pro-strike students break into general brawl.

67. ***Oct. 22 - Administration announces that striking students will receive full academic credit for courses in which they are enrolled.

68. Oct. 22 - Students cheer administration announcement on full academic credit.

69. ***Oct. 23 - Administration and student representatives agree to cease confrontation tactics for three days.

70. ***Oct. 23 - Upon consultation with student leaders administration decides to drop all legal charges against students.

71. ***Oct. 23 - Chancellor Strong moves to suspend normal punitive actions against student demonstrators.

72. ***Oct. 23 - Chancellor Strong appeals for student reasonableness.

73. Oct. 23 - Students instruct their attorneys (ACLU) to drop civil cases against the administration.

74. Oct. 23 - Regents condemn administration guarantee of academic credit to strikers.

75. Oct. 24 - Students aid administration by cleaning up the debris after the rally.

76. Oct. 24 - Students rally in defiance of university curfew to show student solidarity.

77. ***Oct. 24 - Administration states to students that it will continue to act in the best interests of the majority of students.

78. ***Oct. 25 - Chancellor Strong intervenes to dismiss civil prosecution of student protestors.

79. Oct. 27 - Students "sit-in" during regents meeting to demonstrate support for University administration on academic credit issue.

80. Oct. 27 - Students attack regents with placards because of their reprimand of University administration.

STOP AND WAIT FOR FURTHER INSTRUCTIONS FROM YOUR EXPERIMENTER.

PART 2

You will notice that some items are marked with a triple star or asterick. Events marked in this way are those events by an administration official. You are asked to rate these marked events again. This time rate the relationship between the underlined persons or groups with respect to the level of participative or authoritative decision making.

Rate each marked event according to the following 5-point scale:

1 = High Authoritative

2 = More Authoritative than Participative

3 = About Even Authoritative and Participative

4 = More Participative than Authoritative

5 = High Participative

Enter your ratings on the answer sheet provided. The format in which you enter your answers will be explained by your experimenter.

APPENDIX G

Training Experimenters

During the first session, everyone was introduced to the study in which they were to participate. The description given to the experimenters was slanted from a functional perspective. In other words, experimenters were informed of the mechanics of the simulated interaction process in the laboratory but not given any appreciation of the underlying social psychological bases of the interaction. To the question of what hypotheses I was testing, experimenters were told that this research project is in its early stages and that the experiments they would be involved with are strictly explorative in nature, i.e., no specific hypothesis is being tested. In a sense then experimenters were blind to the various hypotheses that flow from exchange theory and organization theory. Following this introductory material, experimenters were trained to know the operational forms of social interaction. Specifically, experimenters were trained in the arts of coding and scaling interaction events. The remainder of the first training session was used to explain coding procedures and explain the two scales to be employed in this research. The coding and scaling manual was developed as a training aid and proved to be a very beneficial guide for experimenters (Appendix E).

Experimenters were given a copy of the manual to study over the weekend and were scheduled to meet again for the second training session the following Monday evening. For training session #2, experimenters

were to meet at the language laboratory facility. Training session #2 began by reviewing briefly the material of training session #1 and answering questions over that material.

The experimenters were then asked to scale the same structural sample of interaction events which had been previously used to validate the independent experimental scales (Appendix F). In the previous context, scalers were naive and were guided only by the polar descriptors to a scale. In this case, however, trained experimenters were asked to demonstrate their command to the two experimental scales, by scaling events in strict accordance with the substantially defined levels of those two scales. Analyses of the performance of the experimenters were then made. A Q-correlational analysis was done including all trained experimenters and two experts.[7] In other words, a matrix of correlations between all experimenters and experts and across all events of the structural sample was computed. On the scale of cooperation/conflict, the average correlation between an experimenter and an expert over all such pairs was .823. The standard deviation about the mean was .077. This result offers support for the clarity and consistency achieved by the coding and scaling procedures. The correlation mean in this case may be viewed as a validity coefficient of experimenters' scaling performance. Because between experimenter differences in scaling performances will contribute to error variance in the subsequent experimental design, the average interexperimenter correlation

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[7]The two experts were the author and the author's undergraduate assistant who together worked for several months to devise and refine a system for coding and scaling of university interaction events data. The same experts were also well experienced in the implementation of these procedures having coded and scaled nearly 800 events that relate to the Berkeley Free Speech conflict at the Berkeley campus of the University of California in 1964-1965.

was also computed. The result was a correlation coefficient of .832 with a standard deviation of .073. In a latter section the various experimenters will be assumed to be replications of one another, i.e., that between experimenter variation be equated to within experimenter reliability. This latter coefficient may therefore be viewed as an index of experimenter reliability.

The same statistics that were calculated for the scale of cooperation/conflict above were also calculated for the scale of participative/authoritative organizational structure. The average correlation between an experimenter and an expert on the latter scale was .640 with a standard deviation of .100. The average between experimenters' correlation was .695 with a standard deviation of .089. In summary, the results on experimenter performance to expert criterion and experimenter reliability were very satisfactory.

The remainder of the second training session was used to acquaint the experimenters with the communication equipment in the laboratory. Special considerations were given to maintaining the privacy of all communications between experimenter and subjects. Experimenters alternately played the roles of switchboard operator and subjects to get the feel of the experimental situation. These factors proved to be essential for smooth function of the simulation. The Q-correlation matrices for the cooperation/conflict scale and the participative/authoritative scale are given in Table 1. Experimenters 1-4 were assigned to the more demanding switchboard operator role. These experimenters must have command of both scales. Experimenters 5-8 were assigned to the important coder role. In the coder role the experimenter need only concern himself with recording the level of cooperation/conflict emitted by an

experimental subject. Table 1 therefore only includes results on those individuals for which knowledge of a particular scale is necessary. The results for the two assigned to the courier role are excluded altogether.

Table 25

Matrix Reliability and Validity Coefficients for 8 Experimenters and 2 Experts for Cooperation/Conflict Scale

		1	2	3	4	5	6	7	8	1
Experimenters	1									
	2	.8300								
	3	.9310	.8244							
	4	.9232	.8503	.9125						
	5	.7549	.7412	.7243	.7203					
	6	.7828	.7726	.7570	.7668	.9072				
	7	.8978	.7787	.8901	.8974	.7410	.8037			
	8	.9244	.8644	.9129	.9064	.8099	.8272	.8761		
Experts	1	.8223	.7270	.7841	.7786	.7804	.7082	.7699	.8210	
	2	.9254	.8649	.9074	.9272	.7630	.8180	.8890	.9001	.8202

Table 26

Matrix Reliability and Validity Coefficients for 4 Experimenters and 2 Experts for Participative/Authoritative

		1	2	3	4	1
Experimenters	1					
	2	.6246				
	3	.6636	.5928			
	4	.7938	.8074	.7412		
Experts	1	.7566	.6093	.6177	.7666	
	2	.5479	.6758	.6891	.7261	.7243

APPENDIX H

Player's Manual

The University Game

Please read the information in this booklet with great care. You are about to fill a position of great responsibility. A wide knowledge of all aspects of the game will greatly increase your capacity to effectively deal with the problems you might encounter.

Do not write or make marks of any kind on any page of this manual.

INTRODUCTION

You are about to participate in a game concerned with the situations and events arising on a contemporary university campus. The object of the game is for you to promote the goals of the student coalition (SC). You will be opposed by the administration coalition (AC).

In reading the recent history of student-administration conflict, you will learn that a reoccurring issue of conflict has been the extent of "student rights" of political expression and activity.

The students' general goal is to promote student civil liberties of advocacy and action. For example, students demand the right to speak out and advocate positions on issues of any kind (personal, social, political, and spiritual). Further, students demand the right to organize and act collectively with regard to these same issues.

The administrators general goal is to promote the autonomy and social order of the university system. For example, administrators demand that students abstain from speech and action that would involve the University in secular (community) affairs. Further, administrators demand the right to discipline students whose actions are judged to be harmful to the university.

The current campus conflict derives from the fact that the goals of each group are incompatible with the goals of the other group. At this time, the University is deadlocked in conflict over these largely incompatible goals.

You and your teammates have arisen to prominance as leaders of the student constituency. The student constituency is represented by an informal organizational structure, the student coalition (SC). The SC is not a chartered student organization and your position of leadership is not a result of an electoral process, rather, your position of leadership is based on general student recognition of your abilities to lead the student coalition movement. Your constituency is heterogeneous. Many diverse student elements which have suffered under the restrictions on student speech and action have united in the SC to promote the stated student goals. As a consensus leader of the student movement, you are not bounded in your activities by any formal charter. However, you are expected to be a spokesman and coordinator of student activities acting as best you can to promote student goals. Your teammates join you in this obligation.

The administration constituency is represented by an Ad Hoc Committee, the President's Task Force on Student Unrest (PTF). The PTF is composed of officials from the administration, law enforcement, and legal sectors of the University. The internal processes of the PTF will be generally made available to the SC -- they can only be inferred from their joint behaviors (messages).

You will be isolated in a communication booth. From this isolated position, you must carry out your role as student spokesman and activities coordinator. You will make statements and report your intended behaviors by messages to your teammates and opponents. You are free to say anything to anybody as long as it is properly channeled through the central control station. You may assume that your message is relayed in substantially the same form as it was made by you. Some delay in

response to your message, however, may be expected given the information load on student leaders and administrators during a situation of high conflict. During the game, of course, you will be receiving all those messages directed toward you from the other persons interacting through the control station. You are free to evaluate these messages and make any appropriate response.

On the basis of computer based information about events on many other campuses, together with the events currently taking place at Franklin State, the most probable outcomes of the interaction of decisions of all groups will be determined. In other words, you are free to act independently without regard to either your teammates or opposition, but your team's effectiveness will be evaluated as a whole relative to the effectiveness of your collective opponents. You will be continually advised on the occurrences on campus as soon as possible after they take place in Flash News releases. These news messages will be delivered to you through your headset as any other relayed message.

DESCRIPTION OF THE UNIVERSITY

Franklin State University is one of a number of land-grant institutions established in the late 1800's. From its modest beginnings in 1874, with 8 instructors and 48 students, the university has expanded to accommodate an undergraduate enrollment of 21,535 in the current academic year, with approximately 2.1% of these being black students and 4% foreign students. All 50 states in the United States are represented among the undergraduates, although 60% of the students come from the state in which the university is located and another 32% from surrounding states. The graduate school enrollment is 5,377 at the present time. The faculty consists of 843 full-time members at the assistant, associate, and full professor levels.

The university has schools of humanities, science, education, social sciences, engineering, and agriculture. In addition, there are a law school and medical school. Undergraduates are approximately evenly distributed among the various schools. The university has experienced rapid growth over the last fiteen years, nearly doubling in size. The largest growth has been in the School of Humanities and the School of Social Sciences.

Through the joint efforts of the state and the university, Franklin, a community which today has 23,000 residents, was chosen as the site of the campus. Eight hundred and forty acres of land were purchased for the university to allow for expansion. The campus is within 11 miles of the city of Reddington, a major metropolitan center with a population

of 450,000. This proximity afford the students the opportunity to take advantage of the cultural and social facilities of an urban area, while at the same time allowing them to live and attend classes in the atmosphere of a small town campus.

The central buildings of the campus were constructed in a fairly compact area. Additional buildings have been constructued around this core which consists of the auditorium, library, student union, administration, and classroom buildings.

In keeping with its traditional role of leadership and service, the university hosts many services and industrial conferences. In addition, the university itself sponsers numerous conferences and presentations on subjects of concern to the citizens of the state and local communities. Franklin State also offers extension classes in several subject areas to the residents of the state.

Accreditation

Franklin State University is fully accredited by national, regional, and professional agencies. It is a member of the Association of Colleges and Secondary Schools and has also been chosen as one of the member institutions in the Association of American Universities.

Living Accommodations and Student Life

Living accommodations for undergraduate students include 12 residence halls, fraternity and soroity houses, cooperatives, and apartments in the surrounding community. Graduate housing is available for qualified students in either single or double rooms with private study and reading areas. Residence halls are located within walking distance of most classrooms and laboratories. Married student housing consists of one and two bedroom apartments located close to both the university and

to local elementary and junior high schools.

Each student has the opportunity to participate in a variety of social and service activities such as the student newspaper (Spirit), the yearbook (Web), student government, the campus radio station (WHSU), intra- and inter-mural athletics, and social-educational activities. Located on campus are nationally recognized chapters of 37 fraternities, 23 soroities, and 35 honor organizations.

Each academic year, the university sponsers a music series, a lecture series, and a film series for which students are given priority and discounts on tickets. In addition, several campus organizations sponser special presentations such as plays and art exhibits.

Purpose

Franklin State University fulfills the provisions and purposes of the Morrill Land Grant Act of 1862, which states as its goal, to promote "liberal and practical education ... in the permanent pursuits and professions of life".

In 1954, the faculty members stated their goals in this way:

1) To help the students to develop skills, to think critically, to be increasingly informed, not only in the subject matter of the particular major, but in human culture, events in the world, and issues of the day.
2) To help the student to prepare for a vocation or graduate work.
3) To awaken an interest in and appreciation of environment and culture of the society.
4) To assist the individual toward self-discovery, to cultivate and appreciate creativity.
5) Public service to the state and union.

6) Basic and applied research.

The Administration

President: Dr. Walter R. Raswell, 48. Ph.D. in Classics. Became president of Franklin State University after serving as president for 12 years of a small Eastern college. He is committed to the ideals of the university as a "community of scholars".

Vice President, Student Life: Dr. Mason Reed, 49. Ph.D. in Political Science. Was Dean of the School of Social Sciences before becoming Vice President. He has great respect for youth, but is somewhat reluctant to see the university making drastic, rapid changes.

Financial Vice President: Dr. John C. Stevens, 50. Ph.D. in Business Administration. Became Vice President after retiring as Colonel in the United States Marine Corps. He strongly believes in the need for some degree of military influence on civilian life.

Dean of Graduate School (holds rank of Vice President): Dr. Marvin Kline, 58. Ph.D. in Economics. Formerly Full Professor in the Department of Economics. He holds strong convictions about the ideals and goals of graduate education.

Dean of Law School (holds rank of Vice President): Dr. Edward Rossi, 62. Ph.D. in Law. Formerly Dean of the Law School at a Midwestern university. He has expressed great faity in the American legal system.

Dean of Medical School (holds rank of Vice President): Dr. Bradley Schroder, 46. M.D. and Ph.D. in Medicine. Formerly a Full Professor in the Medical School. He feels that medical education must become more relevant to contemporary problems.

These six men represent the upper echelon of the university Administration. As a group, their point of view is moderately conservative. However, Dr. Raswell and Dr. Stevens are known to be particularly conservative, while Dr. Schroder is the most liberal of the group.

Franklin Conservative Youth Movement

FCY is one of the oldest organizations on campus, having been founded during the Administration of President Franklin D. Roosevelt. It presently has 375 members who are often viewed by the majority of students as being allied with the Administration. In fact, on several issues the FCY position is even more conservative than that of the Administration. There appears to be no central core of leadership in the group, with all members sharing official FCY policy about equally.

Coalition-Left

CL was organized in 1968 by combining a number of leftist-oriented splinter groups on the campus including the SDS. The present membership numbers at about 400. Since the degree of radicalness of the original groups forming the coalition differed somewhat, the members are now clustered around a central cadre of 25 hard-core revolutionaries. The other members have viewpoints ranging from very liberal to radical to moderately revolutionary.

HISTORY OF COOPERATION/CONFLICT

The "Carpenter Case"

During the spring semester of 1967, an issue arose which captured the interests and awoke a desire for involvement in many students at Franklin State. The events which took place that spring, which have come to be known as the "Carpenter case," are described below.

Jonathon M. Carpenter was a junior in the spring of 1967. His grade point average was a B+. He was taking 12 hours of credit that semester and he held two jobs. The first job was as an unpaid program director of the campus FM radio station, WHSU; and the second as an office employee (10 hours per week) for one of the local political candidates. The FM programming was well-liked by many on campus. It featured mostly rock and folk music, with the exception of a two-hour jazz program on Wednesday nights. In addition, the station periodically presented news and commentary.

During one of his commentary broadcasts, Carpenter presented a strong case for the political candidate by whom he was employed in the other job. The next day, Carpenter was called into the president's office and told to present no further commentaries on the radio station. The administration explained that the university had to remain neutral, and that a broadcast on the official university owned and operated station in favor of any political candidate was "irresponsible".

Carpenter met with the WHSU staff that afternoon, and by majority

vote, the staff agreed that "it is the responsibility of all segments of the population including the students at Franklin State University, to inform the public about each candidate on the ballot in the upcoming elections". Following that policy, Carpenter went on the air that evening with a statement attacking the university administration for "political cowardice" and later in the evening presented a commentary on his employer's political opponent, a statement that was later called "slander of the worst kind" by the local press. The next morning, Carpenter was fired from his job at the radio station by the station manager, on orders of the university president. He was then called into the Dean of Men's office and told that "several charges had been brought" against him, and a detailed statement of charges would be presented to him later in the day.

That afternoon, he was handed an envelope by an Assistant Dean of Men containing three charges against him:

1) Violation of Section L of the "Rules of Student Conduct": Specifically, defaming the name of the University in the eyes of the community by speaking slanderously in the name of the University.
2) Violation of Section J of the "Rules of Student Conduct": Specifically, refusing to comply with and blatantly ignoring the order of the University President to cease presentation of commentary on the University radio station, WHSU.
3) Violation of Section M of the "Rules of Student Conduct": Specifically, endangering community relations with Franklin State University by, in effect, presenting a free advertisement for a political candidate. Other radio stations in the

community sell their time for this purpose, and may resent the donation of free air time as unfair competition.

In addition to the list of charges, the envelope handed to Carpenter contained a statement appointing a time for him to appear before the Dean of Men to discuss the charges and a list of the "Rules of Student Conduct".

Upon his request, Carpenter's case was brought before a Hearing Commission which found him guilty of all three charges. A penalty of suspension from Franklin State University for two semesters was imposed. Carpenter then applied to the Campus Appeals Board, which affirmed the findings and the penalties imposed by the Hearing Commission.

The entire case was given wide publicity at the university, first in the campus newspaper, and then by the left-wing students. The majority of students were aware of the issue, and many were outraged. The leftists realized that this was an issue which had captured wide student interest and which they could utilize to their advantage. They organized a rally in support of Carpenter on the day of the Appeals Board meeting, calling for and getting a large turn-out. Speakers at the rally proclaimed that Carpenter was being treated unfairly and unjustly and that this case was just part of a larger program of "persecution of students" adopted by the administration. They asked students to consider "the wider and long-term implications of such persecution" and accused the campus radio station of being "administration dupes". After the findings of the Appeals Board were known, students organized mass picketing of the Administration Building and tha radio station. There was some talk on campus about "liberating" the radio station, but no aggressive action against the station was ever taken.

Jonathon Carpenter decided and made known that he intended to "throw their penalties in the faces" of the administration by withdrawing entirely from Franklin State. He announced that he could not remain in such a "suppressive and totalitarian atmosphere".

The Current Situation

The situation which exists at Franklin State University at the present time is marked by open conflict between students and administrators. The strains produced by the incompatible goals of students and administrators had been building throughout the fall term. In many respects, the current situation reflects the unresolved issues of the Carpenter Case of 1967.

During the fall term, students showed a resurgence of interest in political involvement. The motivations of students were not generally articulated but the renewed political interest coincided with a number of national and local legal reforms. The United States Congress enacted a statute reducing the age requirement for voting in federal elections to 18 years. The State extended the voting privelege by enacting the 18 year old Age of Majority Bill. These legal measures had especial significance when the State Supreme Court ruled that a student in residence in the University Community for more than 6 months may legitimately claim residency in that community and vote in that community's local elections. Also, political interests may be running especially high this year in the advent of the upcoming Presidential elections. Already political candidates are debating issues that have appeal to student constituencies.

Together these factors resulted in vigorous student political activity during the fall. In front of the concrete posts that mark the

main pedestrian entrance to the campus on an ordinary school day one would find students handing out leaflets, advertising many different kinds of political meetings and actions to be held on the campus itself and off it as well.

However, at the beginning of the winter term, the university administration decided to enforce the University regulations pertaining to student political advocacy and action. The administration announcement declared that students had been abusing their priveleged access to university facilities by promotion of political objectives. The announcement stated that the University charter required the administration to maintain an environment for scholarship, research, and service. In the judgment of the administration, student involvement in political (secular) matters detracts from the stated objectives of the University charter.

Students interpreted the announcement as a direct threat to their political and social objectives. They speculated that there were other reasons for this inopportune decision to enforce the archaic provisions of the University charter. Perhaps the University administrators themselves were bowing to outside political pressures that called for a silencing of students. Students were generally outraged by this infringement of there activities and prepared to act against the administration.

The conflict will be difficult to resolve because each group is committed to absolute, nonnegotiable positions and each represents powerful forces. From participation in the civil rights movement, many students have become well schooled in confrontation politics. Students are now considering how to respond to recent administration

actions. Their eventual response may involve general petitions, pickets, demonstrations, rallies, meetings, arguments. The administration can draw upon its coercive power, law enforcement, and legal force.

APPENDIX I

Questionnaire

Name: _____ Year in School: _____

Major: _____ Sex: _____

The following questions will require you to give your first impressions of groups and issues at Franklin State University. Please record your answers on scales of the following form:

Good							Bad
High Good	Medium Good	Low Good	Neither	Low Bad	Medium Bad	High Bad	

For example: If you perceived the administration to be moderately bad, you would record your answer with a check mark as follows:

Good							Bad
					X		

1. From what you have read in the game manual, you should be able to give a tentative evaluation of the President's Task Force on Student Unrest (PTF). Please rate on the following scales.

Strong _____/_____/_____/_____/_____/_____/_____/ Weak

Good _____/_____/_____/_____/_____/_____/_____/ Bad

Active _____/_____/_____/_____/_____/_____/_____/ Passive

2. Similarly, please give your evaluation of the Student Coalition (SC).

Strong _____/_____/_____/_____/_____/_____/_____/ Weak

Good _____/_____/_____/_____/_____/_____/_____/ Bad

Active _____/_____/_____/_____/_____/_____/_____/ Passive

3. To what extent do you agree with the student/administration positions?

Agree With Students _____/_____/_____/_____/_____/_____/_____/ Agree With Administration

4. To what extent would you actively support the student/administration positions?

Do Nothing _____/_____/_____/_____/_____/_____/_____/ Do a Great Deal

APPENDIX J

Oral Instructions

Hello! We are about to begin a simulation of interaction between a team of students and a team of administrators. From reading your simulation manual, you know that your team (Team 1 or 2) will be functioning as the Student Coalition (SC). The other team (Team 1 or 2) is now located in the laboratory quarters on the opposite side of the control station. They will function in the role of an administration team, President Raswell's Task Force (PTF).

The manual has set forth some historical antecedents of the interaction patterns between the SC and the PTF at Franklin State University. However, the SC and the PTF now include new personnel so there is the possibility that the traditional patterns of interaction will be altered as a reflection of the new attitudes and organizational strategies played by these new personnel. The nature of future cooperation or conflict between the SC and PTF will depend largely upon the actions and reactions initiated by the personnel of these two teams.

You are invited to join in spontaneous/extemporaneous interaction with your teammates individually and your opposition collectively. You may say or propose any action you want as long as it can be delivered in the form of a concise message. The activities you initiate will be relayed in the form of a message. The messages will be received only by those persons to whom the messages are addressed. This arrangement allows for confidential communication between persons within the system.

Messages directed toward the administration will be received by each of the constituent members of the administration team. Communication with an individual of the administration team is usually not an option for students and therefore is not provided for in this simulation. Messages within your own team can be addressed to either one or both of your peers by using an assigned code identification. All messages should be brief to prevent tying up the lines of communication. The switchboard operator can only send or receive one message at a time. When you have a message to send, push the "call button" on your control panel. This will light a bulb on our switchboard that signifies you are ready with a message. As soon as possible, the switchboard operator will get to you and relay your message. Due to the heavy communication load passing through the central operators, you may expect some delay in responses to specific messages.

Finally, it is important that you represent the kind of activity in concrete terms. All activities will be conveyed through the verbal mode but one may impart some variation intensity within that mode. For example, is the activity simply a statement of fact or opinion or does it reflect a disposition or intention toward engagement in physical action. Similarly, distinguish between a threat and an intention to action. (Then privately to <u>each</u> subject the following was said.) Your code will be the letter "C". One of your teammates is "A" and the other is "B". Are there any questions? We will begin in a moment.

APPENDIX K

Table 27

Treatments of A1, B1, and C1

Rows	Columns				
	1	2	3	4	5
1	3/4	4/5	1/5	N -	2/4
2	3A	2B	4A	1B	N +
3	4/5	3/5	2/4	1/4	N -
4	2B	4A	3A	N +	1B
5	1/4	N -	3/5	2/4	4/5
6	4A	N +	1B	2B	3A
7	N +	2/4	4/4	3/5	1/5
8	1B	3A	N +	4A	2B
9	2/5	1/4	N -	4/5	3/4
10	N -	1B	2B	3A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 28

Treatments of A1, B1, and C2

Rows	Columns				
	1	2	3	4	5
1	3/4	4/5	1/5	N -	2/4
2	3A	6B	4A	7B	N +
3	4/5	3/5	2/4	1/4	N -
4	6B	4A	3A	N +	7B
5	1/4	N -	3/5	2/4	4/5
6	4A	N +	7B	6B	3A
7	N +	2/4	4/4	3/5	1/5
8	7B	3A	N +	4A	6B
9	2/5	1/4	N -	4/5	3/4
10	N -	7B	6B	3A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 29

Treatments of A1, B1, and C3

Rows	Columns				
	1	2	3	4	5
1	3/4	4/5	1/5	N -	2/4
2	5A	6B	4A	7B	N +
3	4/5	3/5	2/4	1/4	N -
4	6B	4A	5A	N +	7B
5	1/4	N -	3/5	2/4	4/5
6	4A	N +	7B	6B	5A
7	N +	2/4	4/4	3/5	1/5
8	7B	5A	N +	4A	6B
9	2/5	1/4	N -	4/5	3/4
10	N -	7B	6B	5A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 30

Treatments of A1, B2, and C1

Rows	Columns				
	1	2	3	4	5
1	5/4	4/5	7/5	N -	6/4
2	3A	2B	4A	1B	N +
3	4/5	5/5	6/4	7/4	N -
4	2B	4A	3A	N +	1B
5	7/4	N -	5/5	6/4	4/5
6	4A	N +	1B	2B	3A
7	N +	6/4	4/4	5/5	7/5
8	1B	3A	N +	4A	2B
9	6/5	7/4	N -	4/5	5/4
10	N -	1B	2B	3A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 31

Treatments of A1, B2, and C2

Rows	Columns				
	1	2	3	4	5
1	5/4	4/5	7/5	N -	6/4
2	3A	6B	4A	7B	N +
3	4/5	5/5	6/4	7/4	N -
4	6B	4A	3A	N +	7B
5	7/4	N -	5/5	6/4	4/5
6	4A	N +	7B	6B	3A
7	N +	6/4	4/4	5/5	7/5
8	7B	3A	N +	4A	6B
9	6/5	7/4	N -	4/5	5/4
10	N -	7B	6B	3A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 32

Treatments of A1, B2, and C3

Rows	Columns				
	1	2	3	4	5
1	5/4	4/5	7/5	N -	6/4
2	5A	6B	4A	7B	N +
3	4/5	5/5	6/4	7/4	N -
4	6B	4A	5A	N +	7B
5	7/4	N -	5/5	6/4	4/5
6	4A	N +	7B	6B	5A
7	N +	6/4	4/4	5/5	7/5
8	7B	5A	N +	4A	6B
9	6/5	7/4	N -	4/5	5/4
10	N -	7B	6B	5A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 33

Treatments of A2, B1, and C1

Rows	Columns				
	1	2	3	4	5
1	3/2	4/1	1/1	N -	2/2
2	3A	2B	4A	1B	N +
3	4/1	3/1	2/1	1/2	N -
4	2B	4A	3A	N +	1B
5	1/2	N -	3/1	2/2	4/1
6	4A	N +	1B	2B	3A
7	N +	2/2	4/2	3/1	1/1
8	1B	3A	N +	4A	2B
9	2/1	1/2	N -	4/1	3/2
10	N -	1B	2B	3A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 34

Treatments of A2, B1, and C2

Rows	Columns				
	1	2	3	4	5
1	3/2	4/1	1/1	N -	2/2
2	3A	6B	4A	7B	N +
3	4/1	3/1	2/2	1/2	N -
4	6B	4A	3A	N +	7B
5	1/2	N -	3/1	2/2	4/1
6	4A	N +	7B	6B	3A
7	N +	2/2	4/2	3/1	1/1
8	7B	3A	N +	4A	6B
9	2/1	1/2	N -	4/1	3/2
10	N -	7B	6B	3A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 35

Treatments of A2, B1, and C3

Rows	Columns				
	1	2	3	4	5
1	3/2	4/1	1/1	N -	2/2
2	5A	6B	4A	7B	N +
3	4/1	3/1	2/2	1/2	N -
4	6B	4A	5A	N +	7B
5	1/2	N -	3/1	2/2	4/1
6	4A	N +	7B	6B	5A
7	N +	2/2	4/2	3/1	1/1
8	7B	5A	N +	4A	6B
9	2/1	1/2	N -	4/1	3/2
10	N -	7B	6B	5A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 36

Treatments of A2, B2, and C1

Rows	Columns				
	1	2	3	4	5
1	5/2	4/1	7/1	N -	6/2
2	3A	2B	4A	1B	N +
3	4/1	5/1	6/2	7/2	N -
4	2B	4A	3A	N +	1B
5	7/2	N -	5/1	6/2	4/1
6	4A	N +	1B	2B	3A
7	N +	6/2	4/2	5/1	7/1
8	1B	3A	N +	4A	2B
9	6/1	7/2	N -	4/1	5/2
10	N -	1B	2B	3A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 37

Treatments of A2, B2, and C2

Rows	Columns				
	1	2	3	4	5
1	5/2	4/1	7/1	N -	6/2
2	3A	6B	4A	7B	N +
3	4/1	5/1	6/2	7/2	N -
4	6B	4A	3A	N +	7B
5	7/2	N -	5/1	6/2	4/1
6	4A	N +	7B	6B	3A
7	N +	6/2	4/2	5/1	7/1
8	7B	3A	N +	4A	6B
9	6/1	7/2	N -	4/1	5/2
10	N -	7B	6B	3A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

Table 38

Treatments of A2, B2, and C3

Rows	Columns				
	1	2	3	4	5
1	5/2	4/1	7/1	N -	6/2
2	5A	6B	4A	7B	N +
3	4/1	5/1	6/2	7/2	N -
4	6B	4A	5A	N +	7B
5	7/2	N -	5/1	6/2	4/1
6	4A	N +	7B	6B	5A
7	N +	6/2	4/2	5/1	7/1
8	7B	5A	N +	4A	6B
9	6/1	7/2	N -	4/1	5/2
10	N -	7B	6B	5A	4A
	Q	Q	Q	Q	Q

Q = Questionnaire

N = News Flash

APPENDIX L

Report Form

From: _____ Team: _____

A, B, or C SC or PTF

Part of the task of the SC leaders and PTF officials is to provide their central organizations with adequate information about their reactions to situations which they have encountered and their expectations about future developments. In order to simplify this reporting task, you are given this standard report form.

Please, take time to give adequate consideration to each of the questions on the following pages. Answer all questions as best you can.

In the following sections, you will be required to give your first impression of groups and issues at Franklin State University. Please record your answers on scales of the following form:

Good								Bad
	High Good	Mid Good	Low Good	Nei- ther	Low Bad	Mid Bad	High Bad	

For example: If you perceived the administration to be moderately bad, you would record your answer with a check mark as follows:

Good								Bad
						X		

1. How do you perceive your teammates with respect to their interaction with you? Example: If you are team member B and you perceive your team member A to be high friendly and your team member C to be low hostile toward you, then your response will look like the following:

Friendly	A				C			Hostile

Mark the following scales in a similar manner.

Cooperative								Uncooperative
Active								Passive
Incompetent								Competent
Friendly								Hostile

2. How do you perceive your teammates with respect to their interaction with your opposition? Describe each of your teammates on each of the following scales (as in the above example).

Authoritative								Nonauthoritative
Cooperative								Uncooperative
Active								Passive
Incompetent								Competent
Liberal								Conservative
Strong								Weak

3. How do you perceive your opposition with respect to their interaction with you? Indicate your choice with a check mark in the scales below.

Authoritative ____/____/____/____/____/____/____/Nonauthoritative

Cooperative ____/____/____/____/____/____/____/Uncooperative

Active ____/____/____/____/____/____/____/Passive

Incompetent ____/____/____/____/____/____/____/Competent

Liberal ____/____/____/____/____/____/____/Conservative

Strong ____/____/____/____/____/____/____/Weak

4. Information is important if it has implications for your current or future initiatives. However, information is relevant ONLY if you can meaningfully respond to that information in terms of your task. If information is irrelevant, meaningful responding is not possible. In these terms, how specifically relevant to your decisions and plans was the information you received in the last period?

Very Relevant ____/____/____/____/____/____/____/Very Irrelevant

5. In your evaluation, what factors were most important in determining the course of events occurring on the Franklin State University campus during the last period? Please estimate the degree of importance (in percentage) for each of the following: (Estimates should total 100%).

(a) Activities of your team ..... _____%
(b) Activities by the opposing team ..... _____%
(c) Public opinion factors ..... _____%
(d) Various chance factors ..... _____%
(e) Activities of switchboard operators ..... _____%
(f) Environmental factors ..... _____%

6. The information you receive is edited and relayed to you by a staff of switchboard operators. You may wish to modify the number of reports which you are receiving. Please check your preference for the coming period.

____ Much More Information ____ Little More ____ Same Amount ____ Little Less ____ Much Less

7. How much have you enjoyed the game up to this point?

Very Much ____/____/____/____/____/____/____/Not at All

APPENDIX M

The experimental sample was constituted of persons who in total fit the distribution profile of real student protestors (Flacks, 1967). As was reviewed in an earlier section, Flacks found students from social sciences and the humanities to have a greater disposition toward student protest than have their peers in the commercial, professional, and physical science fields. Flacks, however, found no significant differential rate of participation in student protests as a function of class standing. Apparently the conditions that motivate participation are sufficiently broad to apply evenly across all classes. In the present research, demographic data on subjects were collected including variables on academic major and class standing. A contingency distribution over the categories of academic major and class standing is presented in Table . The contingency distribution shows that students enrolled in the social sciences and in the lower class standings were represented by a disproportionately large number of experimental subjects. This result shows convergence to the distribution profile established for real protestors in real episodes of conflict. Based on these data alone, however, one cannot infer any particular social psychological process operating. One interpretation of the results is that student interest in campus conflict mediated sample procurement. The disproportionate number of students in the social sciences reflected the greater interest in this topic and thus the greater likelihood to volunteer for experimental involvement.

Table 39

Contingency Distribution over Academic Major and Class Standing

Major	Year in School						
	High School	Fresh	Soph	Jr	Sr	Grad	Total
Social Science		5	3	6	1		15
No preference	1	11	8				20
Physical Science		3	1		2		6
business		3	3	3	1		10
Natural Science			2	1	2		5
Medicine					1		1
Law		4	1	1			6
Liberal Arts		3					3
Education		1	2		2		5
Total	1	31	20	11	9	0	72

An alternative interpretation is that social science and "no preference" were most prevalent in the sample simply because recruitment for experimental subjects was undertaken principally in the large undergraduate sections of psychology. The same artifact of the recruitment process can explain the preponderance of freshmen and sophmore subjects. Either or both interpretations of the contingency distribution are possible. While the motives of the student participants are in doubt, it is clear that the constituency of the experimental sample is very similar to the constituencies that were witnessed at the sites of conflict eg., Berkeley, Columbia, and elsewhere.

A closely related topic is the evaluation of subjects' initial perceptions of issues and actors at Franklin State University. It is desirable that the experimental procedure include this analysis of initial state characteristics of the social system for two reasons. First, the initial state serves as a control state against which one may evaluate attitudinal and behavioral changes. Secondly, the initial state survey provides the basis for a multidimensional analyses of the conflict situation. The prototypic conflict situation as formulated here is thereby ammenable to quantitative description. The results on the attitude items are presented in Table . In each case, the questionnaire item is in the form of a 7 point semantic differential scale (Osgood, 1956). Tabular entries present the means and standard deviations for each scale.

A comparison of the positions of the President's Task Force (PTF) and the Student Coalition (SC) shows the student position is evaluated more positively. The students are also perceived to be more active than administrators but have less strength than do the administrators.

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Table 40

Initial Subject Attitudes toward the Various Actors

Actors	Scale Mean	Standard Deviation of Scale Mean
President's Task Force (PTF) Polar Adjectives		
Strong/Weak	2.583	1.489
Good/Bad	5.167	1.267
Active/Passive	3.111	1.410
Student Coalition (SC) Polar Adjectives		
Strong/Weak	3.458	1.404
Good/Bad	2.306	1.002
Active/Passive	2.278	.982

On two additional scales, subjects rated their relative agreement with the student/administration positions as presented in the Franklin State University simulation manual. Subjects showed more agreement with the student position as indicated by a mean student (1)/administration (7) scale position of 1.833 with standard deviation .934. Subjects also reported their willingness to do a great deal in support of their preferred position, i.e., the SC. On a scale of do nothing (1)/do a great deal (7) a mean scale position of 5.472 with standard deviation 1.150 was obtained over all subjects. On the basis of these results, there is every indication that the instructional and informational material included in the simulation manual produced the desired effect. Specifically, subjects were oriented to issues not unlike those at Berkeley in 1964-65, and subjects were aroused for active participation in the subsequent experimental simulation.