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SELF-OBSERVATION REPORTS AS A METHOD FOR TRAINING IN SOCIAL SENSITIVITY

by

STEVEN SPECTOR

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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This manuscript has been read and accepted for the Graduate Faculty in Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

January 5, 1978
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Chairman of Examining Committee

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Supervisory Committee

The City University of New York

To Learning...

that everything is related to everything else,

and all are part of the One.

APPRECIATION

Morton Bard, Ph.D., has been my major source of encouragement, support and opportunity. He created the gestalt in which this study could evolve.

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To all whose Spirit touched mine...thank you.

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INTRODUCTION

Questionnaires and polls have long been utilized in business, and more recently in politics (Packard, 1957). The designing and administering of such instruments have become a respected area of social psychology, and receive considerable attention in several of the other social sciences as well. The creation of a 'simple' battery of questions may involve much sophistication in terms of language, frame of reference, conceptual level of respondents, order of questions, etc. (Cannell and Kahn, 1969). The concern in questionnaire research is directed primarily at obtaining accurate information and minimizing the effects that other variables, such as those listed above, may have in influencing the transfer of unbiased information from the respondent.

Despite the importance of questionnaires, little research to date has been conducted to determine how participation may ultimately influence the respondents, apart from obtaining the responses elicited. In other words, in what ways may the exposure to questionnaires affect those persons who complete them?

In this area Rosenthal's work has focussed on how experimenter attitudes and expectations may influence the behavior of subjects or students, especially in relation to its effect on the validity of the experiment. Particularly relevant was his demonstration that teacher expectations can influence student learning (1963; 1968). Concern with experimental validity has also been approached from the point

of view of the subject; subjects are said to view the experiment as a problem-solving task in which they attempt to learn "the true purpose of the experiment and respond in a manner which will support the hypotheses being tested" (Orne, 1962, p. 779).

Addressing slightly different issues, a number of social and physical scientists recently have attempted to 'step back', so to speak, in order to examine, (1) the ways in which the products of social science research have been used to resolve social problems, and, (2) the possible impact that the procedures of social science research may produce (Kelman, 1968). The major thrust of these spokesmen (Bard, 1972; Kelman, 1968; McGuire, 1967; Ring, 1967) in the first instance is the advocating of a return to Lewin's vision of social psychology which should combine a concern for scientific understanding with a concern for human welfare, as opposed to "research that produces nothing but books" (Lewin, 1948, p. 203).

Moreover, research 'findings' produced in artificial settings may not be justifiably called "a verified fact about nature. This is not because the laboratory situation is unreal, but because it has its own reality" (Kelman, 1968, p. 158). Thus these same social scientists have called for a "judicious use of natural settings" (McGuire, 1967) to either test laboratory findings (Kelman, 1968) or to conduct action research (Bard, 1972).

The possible impact that the procedure of research may produce is usually considered in negative contexts; the unwitting shaping of a client's behavior, or the manipulation

and control of many by a few (Kelman, 1968). The expressed concern is that the methodology of social science research may be playing a role in the dehumanization of society, due not to any evil intentions on the part of researchers but to their lack of awareness of possible negative effects. The major focus of this concern has been on the experiments that have uncovered the 'uglier' side of human beings; in this regard, it is understandable how a person's participation may cause him to doubt his feelings of self-worth and decency, after indulging in behaviors contrary to his perceived values (Orne and Holland, 1968).

But if the procedure of obtaining information through the use of questionnaires has any aftereffect on respondents, it is far less obvious, especially when the questionnaire content is non-threatening and not controversial. Further, if questionnaire-completion may produce changes in the respondents, why must this process necessarily be negative? When researchers are unaware, or choose to ignore, the effects for which they are responsible (Kelman, 1968), negative consequences may ensue. However, when attention is focussed on these same processes and they are ultimately understood, they may be used consciously as another product of research, i.e., as a constructive tool of applied psychology.

The study discussed here attempts to determine if the repeated exposure to a specific questionnaire will result in certain changes in the respondent. Despite the lack of research in the field, the supposition that exposure to a questionnaire may produce certain effects has its basis in

psychological theory as well as in logic. Spending the time necessary to read particular questions or to make selections should make the person more aware of the questionnaire's subject matter than if he had not seen the questionnaire.

The questionnaire thus focusses attention on its content during the time devoted to its completion, but the exposure to its items will act to keep them closer to conscious awareness for a subsequent period of time as well (Atkinson, 1961). In other words, at any moment there are an infinite variety of external stimuli that may be perceived and acted upon, but "we pick out what our culture has already defined for us, and we tend to perceive that which we have picked out" (Lippmann, 1922, p. 31). The questionnaire, in effect, acts to select some of the relatively few stimuli which will reach conscious recognition (Hilgard and Bower, 1966; Bigge, 1964; Lorree, 1970).

To estimate the specific effects of completing a questionnaire or checklist, beyond the increased sensitivity to the included items, will require a delineation of the content area and the structure of the questionnaire. The purpose of the present study is to determine if the repeated exposure to a carefully designed checklist will improve the ability of the respondents to judge the emotional states of others. Prior to undertaking such research, however, it is necessary to direct our attention to the following: (1) are people, in fact, able to distinguish the emotional states of others and, if so, what types of cues are utilized? (2) how

should such a checklist best be designed and administered to achieve the desired goals?

Distinguishing emotions

Facial expressions and body movements have been the subject of studies for close to fifty years. Early research attempting to relate emotional states to observable, non-verbal cues was restricted to the components of facial expression (e.g., Buzby, 1924; Coleman, 1949; Frois-Wittman, 1930). In a review of the early research Bruner and Tagiuri (1954) discussed the methodological problems which limited progress, and concluded that confused results prevented the drawing of conclusions about the potential usefulness of non-verbal behavior as a source of information.

Much of the research from 1938 (e.g., Woodworth, 1938) through the present have attempted to conceptualize the relationships among affects through the use of dimensional systems. Perhaps the most useful formulation was developed by Schlosberg (1954) in which he stated that underlying the variety of different emotional states are three dimensions: a pleasantness dimension, a dimension of attending to or rejecting stimulation, and an intensitive dimension from sleep to tension. It was this theory that provided the framework for the more recent conceptual reformulations and more conclusive research findings of the past fifteen years.

Particularly relevant to the present study on social perception, as this area was termed by Cronbach (1955), are recent findings that facial cues can be used in the accurate

distinguishing of emotions. In one study by Gubar (1966) a successful method for evoking and judging human facial expressions was established. The results indicated that emotional states can be ascertained from facial cues in a laboratory situation with no situational frames of reference. In a later experiment by Boucher (1969) the hypothesis that there are separate and distinguishable facial expressions for the emotions of fear, sadness and pain was tested. In this study and a later replication, Boucher has clearly shown that observers can indeed differentiate expressions of these emotions from only facial photographs.

Other recent studies, especially by Ekman, have focussed on bodily cues in addition to facial expressions as a potentially valuable source of information in distinguishing affective states (Dittmann, 1962; Ekman, 1964; 1965a; 1965b; Ekman and Friesen, 1967). In a series of studies Ekman demonstrated that the nonverbal cues from the head and body provide different affective information. Facial expressions seem to convey information primarily about what particular emotion is being experienced, and relatively little about the level of intensity. Body cues appear to reverse this pattern, communicating information primarily about the level of arousal or degree of intensity of a specific emotion, but relatively little about what particular emotion is being experienced (Ekman, 1965b).

Later studies led to a more complex modification of the above findings in which nonverbal cues were categorized into

body acts, body positions, facial expressions and head orientation. Although the central assumption remains intact that the face is an affect display system with the body illustrating the intensity through adaptive efforts, the distinctions are no longer so clear (Ekman and Friesen, 1967). It appears that the nature of the emotion can be perceived primarily from facial expressions and body acts. The intensity of the emotion is conveyed through head orientation and body positions, while facial expressions and body acts are frequently useful for certain ranges of intensity for most emotions.

Although agreement has not been reached concerning the exact composition and use of nonverbal cues or the system of dimensions most useful in defining emotional states, the literature of the last decade would clearly indicate the ability of subjects to distinguish emotional states of others. These findings have been replicated using solely facial cues and including body postures as well.

It should be noted that distinctions are drawn, although infrequently, between the meanings of 'emotion' and 'affect'. Perhaps the most widely-accepted distinction uses the term 'affect' to denote a feeling which is undifferentiated with respect to the nature of the particular situation in which it occurs--a physiological level of arousal. 'Emotion' refers to a feeling with both physical and mental manifestations usually directed toward people, things, or concepts, e.g., love, hate, fear, etc. (Arnstine, 1967). In other words,

an affect is almost always experienced as the physical arousal accompanying a particular emotion.

However, it would appear that this distinction may be more suitable for philosophical contemplation than for pragmatic utility, since even the most respected social scientists conducting research on affect and emotion, such as those discussed above, usually use the terms interchangeably (in particular, see Ekman, 1965b, and Ekman and Friesen, 1967). Following the model of these leaders in research, this paper will not distinguish between 'emotion' and 'affect', using them both to refer to the meaning elaborated above for 'emotion'. To describe the degree of arousal, the term 'intensity' of emotion will be used.

It is now appropriate to focus on the theoretical considerations involved in developing a checklist on identifying the emotional states of others.

Designing a checklist on emotional states

It was earlier postulated that the mere exposure, without overt reinforcement, to a questionnaire or checklist on emotional states should result in the retention in consciousness of the included emotions. If the form were to ask the respondent to indicate, along a five-point scale, the intensity of the emotions displayed by another party during an earlier social interaction for each of several commonly-understood emotional states (e.g., 'anger', 'fear', 'shame' and 'suffering'), other effects may be predicted based on traditional and social learning theory. This section will

be divided into sub-units, for heuristic purposes, in order: (1) to specify the theoretical considerations that help shape the design and format of the checklist itself, and, (2) to provide a theoretical explanation of how the checklist completion may produce the postulated results.

Use of labels. It has been shown that language affects one's perception and the classification of objects (and behavior) in the environment, and that the discriminations involved in the realm of categorizing behaviors can be significantly influenced by the language used by the individual (Jones and Gerard, 1967). Thus the exposure to the labels of emotions should result in solidifying the pairing of the label of the experience the respondent has had with the emotion and the mental images he has formed (Brown, 1958, p. 84).

It may therefore be postulated that the repeated devoting of a few seconds of time to these labels of emotions, will strengthen the associative bond between the labels of the emotions and the emotions themselves as they are displayed during interpersonal interactions (Brown, 1958; Duncan, 1968).

The exposure to several labels of different emotional states, with which most adults are familiar, is in itself not a neutral act. 'Training', in the usual sense, cannot be thought to occur since it is assumed that each respondent already possesses his own definition of each emotion (Bieri, et al., 1966; Katz and Kahn, 1966), and no overt reinforcement will be provided for completing the checklist. But the respondent will be making a judgment as to how he perceives

the behavior of the interacting parties 'fitting' into the five response categories for each labeled emotion (Bieri, et al., 1966).

This expectation is further strengthened by an experimental finding in which Brown (1958) found that using a label of an emotion (e.g., anger), rather than an arbitrary label (e.g., Category A), resulted in subjects utilizing twice as many relevant cues, such as expressive facial features, in the identification of the emotion. There is presently little doubt that "the naming of referents resembles classical conditioning in that it results in a transfer of behavior from one stimulus to another" (Ibid., p. 94). Thus the respondent's repeatedly spending thirty seconds or longer to check the intensity of feelings in each of four emotional categories should intensify the bond between the label and the expression of the emotion itself.

For similar reasons, the five-point scale with which the respondent will indicate the intensity he judges each of the emotions to have been displayed, will also be in the form of cognitive labels, e.g., 'none', 'just a little', 'some', 'much' and 'very much'.

Levels of intensity. The choice of using a five-point scale to indicate each emotional level is based on the frequent, and successful, use of similar scales in the literature on social perception (Osgood, 1962; Williams and Sundene, 1965). Such scales were found to be useful up to a maximum of seven intervals. It is assumed that the selection of five intervals

would simplify the task; more than five intervals might produce slightly more confusion rather than greater discrimination. The use of cognitive labels for each interval, risks "biasing potential response dimensions" (Williams and Sundene, 1965, p. 47), but for the purposes of this study this concern has little relevance. In addition, the benefits to be gained through the use of labels, as discussed both above and below, may be considerable. Perhaps this is an instance in which effects that are usually unwanted products of 'faulty' experimental design may be consciously utilized to promote a desired outcome.

Repeated administration. To maximize the effect of a questionnaire, or any stimulus for that matter, repetition can be an important factor (Arnstine, 1967; Cronbach, 1963; Lorree, 1970; Morse and Wingo, 1969). It should then be advisable for respondents to complete the checklist more than once. Moreover, the strengthening of the association between the labeled emotions and the emotions themselves should be enhanced if the checklist could be administered after a social interaction in which the display of the emotions contained in the checklist were likely to occur (Morse and Wingo, 1969).

Length of questionnaire. It is preferable to keep the checklist as brief as possible in order to prevent the deterioration in respondent motivation and the frustration that would result from the repeated completion of a more lengthy task. A shorter instrument should also result in the respondent's more readily recognizing the fewer items (Arnstine, 1967; Davitz and Ball, 1970; Lorree, 1970).

Recognition of emotions. The exposure to category labels and the resulting strengthening of an associative bond should produce a more significant effect; the increased familiarization with the labels, and the more significant part they play in the respondent's daily routine, should facilitate the recognition and memory process in relation to these emotions (Gaertner and Seidenberg, 1971; Jones and Gerard, 1967).

Thus commercial advertisers are in constant competition to make products more recognizable by their choice of product name (i.e., label) and packaging, or by stressing alleged differences between one product and all others (Britt, 1966; 1970; Kassarjian and Robertson, 1968). The use of appropriate cognitive labels, as mentioned earlier, "increases the accessibility of a cognitive category to appropriate stimulus input" (Jones and Gerard, 1967, p. 138).

Therefore it may be postulated that respondents will be more sensitive to the appearance of the four labeled emotions while interacting in interpersonal transactions in which these emotions are likely to appear than before exposure. This result of labeling is enhanced by a separate, but complementary, factor related to the selection of emotional intensities. Requiring the respondent to choose one of five levels of intensity for each emotion adds a degree of complexity, and often uncertainty, to the task. To the extent a respondent feels uncertain about the emotional intensities being displayed, he will seek out additional information in the area (Ibid.) and further increase his awareness of the four emotions

(Hilgard and Bower, 1966), and of other emotions as well through stimulus generalization (Kalish, 1969).

Apperception. Once an individual becomes more aware and sensitive to a particular group of stimuli, he has developed an altered frame of reference in which these stimuli, e.g., emotions, play a more prominent role. The immediate result of this greater sensitivity should be the respondents 'seeing' these emotions more frequently, when they occur, through a process called "apperception" (Bigge, 1964, pp. 36-47). This process assumes that when a particular stimulus, e.g., emotional states, is brought into conscious awareness, it is assimilated into the individual's totality of conscious thoughts; it thus becomes a more salient aspect of his normal functioning (Arnstine, 1967).

With the assumption that more of the respondent's time during social interactions is spent aware of the emotions of others, it is logical to question how his perceptions can become more accurate; can a respondent, in fact, learn to discriminate among ever finer intensities for each emotion? This question is especially appropriate when one considers that a respondent will receive no feedback for completing the checklists--any improvement in accuracy will be solely a result of completing the checklist combined with other subtle processes that occur in the respondent's normal functioning.

Feedback through social reinforcement. In any social transaction a person behaves in a manner he feels is appropriate to the situation. His definition of the

situation is shaped by the external stimuli he chooses to perceive, including the verbalizations of others, and the internal stimuli he takes into the transaction. The external stimuli a respondent chooses to perceive will differ drastically depending on the type of situation in which he finds himself, the personalities of those around him, his external surroundings, and his own system of values and needs. For example, a person will be responsive to very different cues when he enters a grand ballroom than when he enters a classroom.

When a respondent becomes more sensitive to the emotional states of others, he will 'act' on the basis of his perceptions; his behavior will be consistent with his estimate of the emotions he sees and their respective intensities. The individual's behavior, or response, to the stimuli produced by the other parties will become, in turn, the new stimuli for the others to act upon in the social transaction. According to the principles of social learning theory, each behavioral reaction provides feedback to the other person in the form of social reinforcement, whether it be positive, negative or mixed (Bandura and Walters, 1967).

During a social transaction each person is constantly reacting in a variety of ways--body posture, facial expressions, hand gestures, verbalizations--which may ultimately determine the reactions of the other parties (Michotte, 1968). Indeed, even the emotions under discussion are 'social feelings' learned "in communication with others whose response teaches

us what our acts mean to them, and thus to ourselves, as we play our roles in the community" (Duncan, 1968, p. 47).

Discrimination learning. Relating the above concepts to the process of a respondent becoming more accurate at judging emotions, the individual 'perceives' a combination of emotions being displayed in a social interaction. This perception is an active decision-making process in which the individual places the cues he receives into meaningful categories established from prior learning (Bruner, 1957a; 1957b), in this case the four emotions with five different levels of intensity for each. The respondent, acting in accordance with the perceived emotions of the other parties, receives feedback in the form of social reinforcement. This feedback is used by the individual to compare, transform or recode this new information either to strengthen or modify his perceptions about the emotional states of the other persons (Miller, 1967).

In addition, since the five-point scale of intensities used for each emotion will also consist of cognitive labels (e.g., 'none', 'some'), as discussed earlier, advantage may be taken of the "isomorphic relationship between nonlinguistic reality and speech" (Brown, 1958, p. 216). Thus exposure to the labels for five degrees of intensity should make discrimination within each emotion somewhat more simple to achieve.

Additional reinforcements. In addition to the social reinforcement obtained by the respondent during interpersonal interaction, his ability to discriminate the emotional states of others will be further reinforced by several other factors.

1. To the extent that he improves, or merely focusses, upon judging the emotional states of others he will be better able to predict the behavior of others and the consequences that will result from his own choice of action.

2. As a respondent refines his ability to 'read' others, he gains the satisfaction of having mastered a new skill which augments his store of knowledge (Berlyne, 1960). Further, he will be complying with the universal tendency of higher animals to seek new goals, especially those with specific value in situations. Although the reinforcement gained through this 'extrinsic investigation', as Berlyne calls it, could not be expected to motivate people to undertake discrimination learning of emotions on its own, its possible reinforcement value after the skill is gradually mastered should not be overlooked.

3. Another source of reward, for at least some respondents, is expected to be the gaining of a greater ability to empathize with others, to understand why people say the things they do.

Let us briefly review how the completing of a checklist can theoretically result in an increased ability to judge the emotional states of others. Respondents will be asked to select a labeled intensity for each of four emotions following a social interaction in which these emotions were likely to have been displayed. The exposure to the labels of both the emotions and levels of intensity will sensitize the respondents

to a variety of cues relevant to these emotions. As the respondents infer the existence of specific emotions to the other parties, their behavior will be consistent with their judgments. The interpersonal interactions during the social transaction will provide feedback to the respondents (and other parties as well) in the form of social reinforcement which will be used to strengthen or modify the respondents' original judgments. This process, both during a single interaction and combined over the course of many, will result in finer and more accurate discrimination learning.

Thus the simple task of checking-off four commonly understood emotions may prove to be an effective method of learning interpersonal sensitivity. Although the theory underlying the learning may appear inappropriately complex in comparison to the simplicity of the structured stimulus, the proposed system follows traditional educational theory. For, "education is a process of causing present, specified experiences of...(learners) to combine with appropriate backgrounds" (Bigge, 1964, p. 255).

The general goals of this study, stated above, are: (1) to determine the effect on respondents of repeated exposure to a carefully prepared checklist, and, (2) to structure the checklist, through the use of educational and social psychological theory, so that the predicted changes would be beneficial and satisfying for the respondents. More specifically, the area of social perception has been selected as an appropriate field in which skills may be improved through checklist completion.

To meet these objectives while maximizing the probability of obtaining significant and useful results, the selection of a suitable respondent population is of prime importance. The following are several criteria which should ideally be considered in the selection of respondents:

1. The respondents should have frequent access to social interactions in which the emotions on the checklist may be displayed. Without frequent exposure to the affective states, the benefits of repeated checklist completion will be minimized or negated.

2. If the proposed effects are realized and the respondents do become more adept in judging the emotional states of others, respondents should ideally be selected so that their vocational functioning will be significantly enhanced by the improvement of this skill. In this way the benefits will be utilized to a larger extent than with other occupations in which accurate interpersonal perception is less important.

3. If possible, the use of social perception by the respondents should be related to their job functioning, such that an improvement in this skill will benefit a considerable number of other people as well.

4. The respondents should share some of the more important qualities (e.g., occupation, age, values) that might influence the extent and direction that the postulated checklist effects may assume. This will allow for greater generalizability of results within a particular population.

In order to deal with these issues it will be necessary to identify a group of potential respondents which fulfills these criteria. One group, rarely thought of in these terms, is the police; ironically, it is the police who fulfill each of the above criteria in an almost ideal manner. However, to fully understand the inter-relationship of the police institution with the objectives above, it will be necessary to first examine the roles and needs of this group.

THE POLICE

The police function

"The police mission these next several years may be the most important in public service," according to former Attorney General Ramsey Clark (1970, p. 137). The divisiveness in our population is largely responsible for the social pressures which can, and often do, erupt in physical or verbal conflict; the agency most readily called in such situations is the police department. In some cases the police help alleviate much of the conflict, and in others they paradoxically exacerbate it (Leinwand, 1972).

To better understand what underlies this phenomenon it is helpful to consider the role of the policeman in our society as well as the goals of the police department. The major functions of a police officer may logically be broken down into two social roles--the maintainer of order and the en-

forcer of laws. Maintenance of order involves either, (1) providing a service, such as taking a person to a hospital or finding a lost child, or (2) managing real or alleged conditions of disorder, e.g., quarreling families, public drunks, tavern fights. Law enforcement, on the other hand, involves 'catching crooks', e.g., checking on a prowler, preventing a mugging, catching a burglar in the act, or apprehending a suspected thief (Wilson, 1969).

Both the police and the public currently view the primary responsibility of the police as that of law enforcement. Family quarrels, tenant complaints, and noisy youths are seen as not 'real police work'. To most policemen these tasks are not only bothersome, but somewhat demeaning in that they sidetrack the officer from his 'real work' while he wastes time in pursuits less consistent with his perceived role.

> The police establishment does not recognize order maintenance as 'real' police work. Consistent with more pervasive social values, the police institution recognizes and rewards the quick draw on Main Street as the prototype of police excellence. (Bard, 1971, p. 153)

It is ironic that in our unsettled society in which the police and the public are often at odds, the police stereotype is shared by the overwhelming majority of the public and police alike, while the original stated purpose of the police back in New York City, in 1783, was solely to <u>maintain order</u> in the evenings (Astor, 1971). Despite the stereotype, it has been clearly shown that between 70 and 90% of a policeman's daily activity involves the maintenance of order rather than law

enforcement (Bard, 1971; Fleming, 1970; Goldstein, 1968; Wilson, 1968).

The issue of what services constitute 'real' police work is quite important, and not just an academic exercise. If officers are constantly responsible for 'non-police' tasks, motivation will be low and performance will suffer. The morale of the force ultimately will fall and relations with the public will be impaired severely (Clark, 1970). A formal clarification of police responsibilities to the communities they serve was undertaken by The President's Commission on Law Enforcement and Administration of Justice. In their Task Force Report: The Police, an official policy shift towards an open acceptance of the maintenance of order role was expressed. The following are examples:

> ...in answer to the argument that the rendering of services is not part of the duties and function of the police: "The answer is that the friendliness, confidence, respect, trust and affection that they receive from the people are almost the sole basis of the power and efficiency of the police of Britain." (p. 161)
>
> Community relations is not a part-time task of the police department, or a mere postscript to its traditional work. We believe that community relations is essential to all law enforcement and therefore an integral part of all police work...(p. 206)

It is only recently that maintenance of order calls are not only being accepted as police work, but as an essential factor in an officer's ability to patrol. Service calls are of incalculable value to the patrolman as well as to the population he serves; they are his primary method of meeting the people he polices, and of allowing him to increase his

understanding of their values, customs and mores (Rubinstein, 1973). Such insight into the necessity for diverse police roles, however, are still shared by only a minority of police and the public they serve.

Police discretion

When one acknowledges the order maintenance function of the policeman, the complexities of the real world suddenly emerge. When one labors under the myth that the police merely enforce law, behavioral guidelines for the policeman are simple: arrest all law-breakers (an impossible task in its own right). But when policemen are expected to provide services or restore order in a variety of situations, the officer is required "to determine the forms of conduct which are to be subject to the criminal process" (Goldstein, 1963, p. 141). In most of these situations the policeman is not dealing with a real 'criminal' and an arrest is inappropriate; this necessitates the use of other techniques to handle the situation 'on the spot', with departmental rules and regulations providing little guidance. The standard operating procedures of the police department, typical of all bureaucracies, tend to be limited to internal management (President's Commission, 1967; Etzioni, 1964; Schein, 1970).

> It is in the order maintenance functions that the policeman runs into his greatest difficulties--here the greatest amount of discretion is called for and the greatest amount of sound and balanced judgment is required. A harsh word, a remark intended to shame or humiliate, or an indiscretion can trigger a riot or aggravate a disturbance (Leinwand, 1972, p. 37).

When one considers that most of the policeman's decisions during these calls are made under the pressure of the moment (President's Commission, 1967; National Advisory Commission, 1973), the complexity of the task becomes even greater.

It is becoming increasingly apparent that the situations in which policemen most frequently find themselves "do not require the expert aim of a marksman, the cunningness of a private eye, or the toughness of a stereotyped Irish policeman" (Terris, 1967, p. 60). The simplistic and idealistic 'law and order' view of the police role must be replaced by a far more complex one, and accompanied by the realization that effective policing requires a greater variety of professional skills than almost any other activity in our society (Clark, 1970). Areas in which the police are called upon range from the physical sciences to medicine, psychology, social work, race relations, marriage counseling and human relations. Individual officers must be well-versed in many of them.

The particular skills required in the maintenance of order calls, in which policemen most frequently find themselves, are related to a knowledge of human behavior (Bard, 1970a). The situations, "demand knowledge of human beings and the personal as opposed to official, authority to influence people without the use or even threat of force" (Terris, 1967, p. 60). With such factors in mind, the need to equip officers with methods to deal with these situations is apparent. In order to exercise effectively the broad discretionary powers the policeman possesses, officers must gain

an understanding of the dynamics of people (Clark, 1970; National Advisory Commission, 1973; Zacker, 1971).

The use of personal judgment and interpersonal skills in the law enforcement field has long been denied because of the popular belief that a policeman arrests all law-breakers and leaves all innocent citizens alone (Bard, 1969). Moreover, the mere suggestion that a policeman "exercises discretion in fulfilling his job may be taken as an affront--an attack upon the objective and sacrosanct nature of his job--that of enforcing the law without fear nor favor" (Goldstein, 1963, p. 141).

Such a view is far too simplistic, however, even if one were to ignore an officer's order maintenance duties. Law enforcement is much more than arresting offenders; it involves an almost constant exercise of judgment and personal discretion by the officer. It is the responsibility of each policeman to decide if and how the law should be applied. Using his own discretion, he reaches a decision based on the combination of situational cues he has discerned and evaluated. Because it is the patrolman's definition of the situation and subsequent decision as to how the law should be applied, "he, in effect, makes the law; it is his decision that establishes the boundary between legal and illegal" (Niederhoffer, 1967, p. 64).

Once an officer has decided on a particular course of action, the use of discretion remains a necessary, although often unused, tool in shaping the specific methods of implementation. Officers possess informal powers that far exceed

those formally delegated to them. Traditionally, policemen occasionally would exercise an informal use of force to 'settle accounts'; although the public no longer supports such practices, policemen still resort to force when they feel challenged (Rubinstein, 1973). But physical attack is just one of many ways a policeman wields power over citizens. He may use an insulting tone, talk down to someone, or adopt a familiarity that is unwanted but that cannot be stopped by the persons with whom he is interacting. Any one of these behaviors--or the many other forms of interpersonal powers possessed by policemen--can aggravate a disturbance, trigger a physical assault or inflame existing tensions between the civilian parties.

Every person can influence the behaviors and attitudes of those around him through the use of the same behaviors listed above, but the degree of power and its ultimate effect are greatly magnified when manifested by law enforcement officials. The extent of an officer's power is better understood when one realizes that even average, 'law-abiding' citizens are self-conscious when a policeman is in sight. This is not at all surprising because, "it is the policeman who is the first and most obvious extension of the arm of the law and of government reaching out toward him. In doing his job, the policeman touches the individual in a host of private, personal, and intimate ways" (Leinwand, 1972, preface).

It is not difficult to imagine how much greater the self-consciousness can become when the parties are confronted by the police as a consequence of their own alleged actions, e.g., noisy dispute, 'harrassing' neighbors, assault, burglary, etc. Many police interventions involve parties who have had similar experience in the past, so the negative associations are that much more real. Another factor adding to the ultimate effect of police behavior is the culture of the neighborhood. The poorer socio-economic areas in which police record the most activity, view the police as an enemy (Goldstein, 1968); their perception is often one of mutual hatred, despite the real feelings and attitudes the individual policeman may possess.

Further, police often intervene in situations in which all parties are under much stress, and emotional levels are high. Even 'innocent' remarks can lead to negative consequences when perceived through emotional, and perhaps irrational, mental 'sets' (National Advisory Commission, 1973). The mere presence of uniformed officers at one's front door may produce feelings of shame and anger because neighbors may be watching. Lastly, is the very real consideration that any intervention by an officer, regardless of the stated purpose, may lead to an arrest or the divulgence of information that may somehow prove harmful later.

The influence and power that police possess in interpersonal interventions may be viewed as 'tools of the trade'. As is true of any source of power, they may be utilized in

very constructive as well as destructive ways. It is the individual policeman's own judgment that is the sole determinant of how these tools of power are employed.

If an officer's discretion plays such a major role in police intervention, then an awareness and acceptance of its existence will be a necessity in ensuring the more efficacious use of such 'tools of power'. An important step in this direction was recently taken by The National Advisory Commission on Criminal Justice Standards and Goals in Police, in which they noted that the use of judgment in police work has long been denied by police administrators but that it should no longer be ignored. In fact, policemen clearly, "are professional decision-makers who exercise discretion in resolving conflicts that threaten public order" (1973, p. 22).

Once the concept of a policeman as decision-maker is accepted, it may prove worthwhile to examine the basis or foundation from which each officer constantly exercises his discretion in a host of interpersonal interactions, and the methods he uses to arrive at his decisions. The area that should logically be explored first is that of current training programs for police institutions. Most important, perhaps, is the training of recruits, because, "aside from individual intelligence, prior education, judgment, and emotional fitness, an officer must receive extensive vocational training before he can understand the police task and learn how to fulfill it" (President's Commission, 1967, p. 137).

Present training

Where formal training of new police officers exists, it is usually conducted in Police Academies. The Academies are operated either by the individual police departments in larger cities or by the State Police who train the recruits of local departments. The length of training programs varies widely; smaller municipalities, on the average, provide less than three weeks of training, while larger cities with populations of at least 250,000 often provide eight weeks or more of training (President's Commission, 1967).

While the content and quality of Police Academy programs will differ greatly, a relatively comprehensive curriculum, typical of the more progressive Academies, was included in The Police Academy: A Psycho-Structural Analysis by Harris (1970, p. 34):

Topic	Hours
Patrol Procedures (including 40 hours in the field)	89
Law & the Courts (excluding law related to traffic)	78½
Traffic (law, accident forms, driving skills, procedures)	40½
Police Sub-departments: Structure & Functions (Homicide, Narcotics, Canine, Juvenile Aid, Arson, Inspection, Communications)	32½
Self-Defense (karate, koga, riot training)	26
Drill & Inspections	21
Departmental Forms & Rules	20
First Aid (including maternity cases)	16
Orientation (Community Relations, County geography, police ethics, professionalism	16½
	340

Although this curriculum is more comprehensive than most, training programs are usually categorized into the following academic divisions: law, government, police procedures and techniques, police in the community, human relations, rules and regulations. According to a recent survey, lectures remain the most widely-used teaching technique, while field observation is infrequently employed (President's Commission, 1967); this is true despite the observed passivity of policemen to classroom lectures (Harris, 1970; National Advisory Commission, 1973).

Disregarding, for the moment, the relevance of this type of police training or its effectiveness, one is struck by the meager amount of formal training an officer receives in comparison to other professions with far less immediate physical and psychological impact. This is especially apparent when one considers the social and psychological power wielded by the individual policeman in each of thousands of interactions every year. For example, a 1967 study by the International Association of Chiefs of Police found that the average policeman receives less than 200 hours of formal training while embalmers receive "more than 5,000 hours, and barbers more than 4,000. No reasonable person would contend that a barber's responsibility is 20 times greater than a police officer's" (National Advisory Commission, 1973, p. 380).

Indeed, Bard compares the functions, responsibilities and training of the policeman with that of physicians:

> There are no other two professionals in the helping system whose identities and responsibilities approximate each other so closely. The physician is an authority with the power of life and death in situations that involve physical disorder. The policeman, on the other hand, is an authority with the power of life and death in situations of social disorder. And yet the average physician receives a minimum of 11,000 hours of training to prepare him for his role; the average policeman receives less than 200 hours of training to prepare him for his. (1971, p. 154)

Accentuating this paucity of study is the important question of how relevant the present curricula are to their stated goal of preparing an officer to perform police work. Despite the improvement of many training programs, for the most part, current programs "prepare an officer to perform police work mechanically, but do not prepare him to understand his community, the police role, or the imperfections of the criminal justice system" (President's Commission, 1967, p. 138).

Present need for training

The average patrolman receives little, if any, training to make him aware of the use of his common sense and judgment in handling neighborhood or other interpersonal problems (Leinwand, 1972). His judgment in such situations, although largely intuitive, must be flawless. Today's policeman "must be as quick on the draw with reason as with a gun" (Turner, 1968, p. 25). Despite the complexity of the patrol function, police departments usually assign men to patrol who possess only a general knowledge of police work obtained in the Police Academy (National Advisory Commission, 1973).

By and large, the only method for decision-making in such situations is the officer's experience and common sense which is usually manifested by a process best described as "unarticulated improvisation" (President's Commission, 1967, p. 18). The reliance on his own common sense is often motivated by an inherent desire to be a good citizen as well as an effective patrolman (Leinwand, 1972). In an effort to sort out the most relevant cues in any intervention,

> each policeman must teach himself to see what he is looking at, just as he must teach himself to patrol. Older men help him out occasionally with hints and tips, but the skills he acquires are discovered by accident, by example, and by making mistakes. It is not a painless process, either for the policeman or for the people he encounters. (Rubinstein, 1973, p. 219)

With an awareness of, (1) the frequent use of police discretion in both routine and crisis situations, and of, (2) the necessity that such judgment be as 'flawless' as possible in order to improve rather than exacerbate the problem, it is logical that officers "must understand human nature and the dynamics of communication, and must recognize the motivations and behavior of persons, particularly under stress..." (National Advisory Commission, 1973, p. 401). In order to perform well, a person must understand what he is trying to do. For the police this requires training in the understanding of the dynamics of people as well as his numerous other areas of responsibility.

The necessity for training in this field has recently become more widely accepted. A knowledge of human behavior, problems and values can make the policeman more effective as well as increase his personal satisfaction and reduce tension in public encounters (National Advisory Commission, 1973). Currently a policeman's principal concern in interpersonal interventions is to physically control the people with whom he is interacting (Rubinstein, 1973). With an increased knowledge of human dynamics, officers will feel more confident and in control of total interactions, minimizing the necessity for physical controls (Walton, 1969).

Impediments to police training

A recognition of the need for goods or services does not ensure their existence or acceptance, however. Training in police bureaucracies is certainly a case in point. The paramilitary structure of most departments and the content and emphasis of training received in Police Academies often provide a climate counter-productive to the goals of training discussed above. 'Training programs' are invariably viewed as a period of time during which outsiders (or policemen who know nothing of 'street life') preach to officers on the correct way to 'do the job'.

1. The Police Academy. Perhaps one of the most serious flaws in traditional Academy training is the subsequent 'reality shock' when the graduates experience the real world during patrol. Policemen graduating from training academies

and going on the job often report that the training received in the classroom was not a realistic preparation for a patrol assignment and bore little relationship to what happens in the field (National Advisory Commission, 1973). Niederhoffer explains that the Academy curriculum stresses ethics, ideals and professionalism which is not easily transferable to the conditions on the streets. Moreover, the recruit quickly acquires a 'survival kit of techniques' from his peers to meet these shocking conditions of reality which "in themselves may contradict the high ideals the Academy may have set" (1967, p. 44).

Even practices in the Academy may prove contradictory. Prizes are frequently awarded to outstanding students; in one Academy, for example, "three of the five prizes awarded, in the words of the staff, to 'encourage professionalization' were revolvers" (Harris, 1970, p. 157). Further, it was noted that of all the skills necessary in police work, "it was the officer's marksmanship which was periodically evaluated throughout his career" (Ibid.).

Aside from the more obvious negative effects that result from the contrast between ideal and real values, e.g., demoralization and cynicism, the perceived irrelevance of classroom preparation, "undermines training in the eyes of graduates and police agencies" (National Advisory Commission, 1973, p. 381). The contrast between Academy life and a policeman's life on the street transcends the content of classroom training; the

formal atmosphere of protocol and ceremony at the Academy usually contains no similarity to an officer's daily routine. The contrast often has the unfortunate consequence of deepening "his contempt for the training he was given, causing him frequently to disregard many of the more important things he was taught" (Rubinstein, 1973, p. 54).

Another factor undermining the effectiveness of training is peer pressure. Recruits are frequently chastised by the experienced men for being naive enough to 'follow the book'. They learn to adopt the norms of their colleagues and gradually neglect the formal rules they were taught. This conversion is more readily understood when one considers that a primary effect of 'reality shock', as discussed above, is a mistrust of the Academy instructors' words and thus a search elsewhere for direction. Turning to experienced peers is quite a logical alternative, and these "more experienced men tell him that in order to become a real policeman, he will have to forget everything he is learning at the Academy" (Niederhoffer, 1967, pp. 46-47).

Further, the preparation of recruits at the Academy is largely military in nature. All teaching, whether it be didactic presentations or review of dress codes, takes place in an atmosphere that requires strict obedience to superiors and conformity to traditions. With the acceptance of the policeman as a professional, one may seriously question the efficacy of a regimen of study that encourages respect for

tradition and authority, which ultimately leads to mechanical and structured thinking (Goffman, 1961; Leinwand, 1972).

2. The police culture. Having briefly examined the effects Police Academies often produce in new police officers in relation to their attitudes toward training, it may prove worthwhile to similarly focus on the effects the police departments engender once officers are on the job.

According to Robert M. Igleburger, former Director of Dayton, Ohio Police Department, the traditional police organizational structure is too militaristic and autocratic to effectively deal with the newly-accepted police role and the flexibility it requires (National Advisory Commission, 1973). Symptomatic of such an outdated, autocratic structure are: obedience to superiors; punishment for disobedience; rigid lines of authority and power; pressure to conform; one-way downward communication; and a certain degree of mistrust from both above and below.

Recruits usually harbor a mixture of fear and admiration for their sergeants which was instilled at the Academy (Rubinstein, 1973), but underlying it all is the necessity to obey superiors. The real bosses of an officer are his sergeant and lieutenant--not the police captain or city government. His sergeant teaches him, takes responsibility for him and defends him against others, but only if he receives his total loyalty and obedience; if not, he will frequently punish the officer without permission from above (Ibid.). Transferring a veteran

from a high-activity beat to a 'dead' one, or from a patrol car to a walking beat are popular methods sergeants use to censure officers. They provide an informal, but direct way of communicating his feelings to his men. A more subtle method of punishing officers is for the sergeant to withhold important little rewards that only he has the power to grant, such as not allowing men to arrive an hour late for work or leave a little early.

Lines of authority are clear and sacred. When a lieutenant disagrees with the way his sergeant is handling his men, he will usually refrain from directly interfering. His feelings will be conveyed through innuendo and casual mention of specific officers' behaviors that he feels his sergeant 'ought' to hear about. When disagreements are aired it is never in front of his sergeant's men, so as not to undermine the sergeant's authority. Similarly, peers will avoid diminishing each other's authority; sergeants will not berate one another in front of officers, nor will any officer criticize another when civilians or superiors are present (Rubinstein, 1973).

As is true in most autocracies, the dissemination of information is mostly through one-way, downward communication systems (Etzioni, 1964; Schein, 1970). "The military structure of police organizations, and reliance on the chain of command within most agencies, can hinder the upward flow of information. The requirement that information be in written form,

and the knowledge that such reports will be reviewed at numerous levels of command, inhibit candor" (National Advisory Commission, 1973, p. 443). Such a structure often produces more serious problems than mere discontent among the lower ranks at not being heard; the lack of an upward flow of information prevents policy-making, high-level officers from access to information about conditions on the street. Thus policy decisions are often based on distorted or outdated assumptions.

In addition to obedience toward superiors, the milieu in a para-military organization promotes conformity in thought and deed (Goffman, 1961). Although the department is not run strictly 'by the book', informally agreed-upon operating procedures are expected to be followed. When behavior is out of the ordinary, peer pressure is brought to bear, even when the accepted behavior transcends the boundaries of legality. For example, when most officers in a district accept free meals from a particular restaurant and other such illegal 'favors', a non-complying patrolman may find himself scorned in the locker room, assigned to undesirable districts, and generally lonely (Rubinstein, 1973).

Officers understandably feel justified in exploiting these little opportunities for free meals, Christmas gifts, etc., when they see police policy clearly influenced by politicians, powerful business interests and merchants' associations. Semi-formal and informal arrangements are made by commissioners, captains and street supervisors, dealing with anything from overlooking illegally parked cars to providing extra police protection (Ibid.).

When a highly rigid, authoritarian organizational structure exists, the reliance on chain of command authority, rather than individual responsibility, often engenders mistrust. Thus officers are often told only what is absolutely necessary to maintain the unity of the platoon. When an officer calls in sick, his supervisor may pay him a personal visit to check on the authenticity of the excuse. Each higher level officer may have his favorite lower echelon 'friend' to keep abreast of any behaviors or attitudes that may discredit him.

3. Other impediments. The atmosphere in most police organizations contains other factors working contrary to the acceptance of the policeman's role as a professional, and to the training that may be necessary to realize this goal. Foremost among these areas of resistance are: (a) a reluctance to share the workings of the department with outsiders, (b) a resistance to change, and (c) a suspicion of academicians and researchers.

a. Like most organizations and individuals, police departments prefer to maintain a respectable image to 'outsiders' and avoid laundering their dirty linen in public. Police agencies, however, often harbor greater fear of outside exposure than is typical for other institutions due, in part, to the frequent criticism from, and antagonism by, the public it polices.

> Like everyone else, an officer needs self-respect. When he finds that his contacts with the public are frequently antagonistic, and that some people slight his role, he may begin to feel alienated. This feeling of isolation often leads to develop-

> ment of a police subculture to which officers turn for comfort and respect. (National Advisory Commission, 1973, p. 35)

This has led to a 'blue curtain' of secrecy which has traditionally screened police organizations and prevented outsiders, especially researchers, from obtaining entree into the life and world of the police (Niederhoffer, 1967).

As a result, high level police officials expect to be informed of any occurrence which may affect the appearance of their command. Even patrolmen who have little or no interaction with their captain may be required to personally inform him of "anything that will open the district's work to scrutiny from outside or above" (Rubinstein, 1973, pp. 31-32). To further isolate the function of the police, officers in many departments are under orders not to talk about police work with anyone outside the department (Skolnick, 1966).

b. Resistance to change is typical of most bureaucracies (Etzioni, 1964; Hornstein et al., 1971; Schein, 1969; Weber, 1964); we are all fearful of the unknown. In the police system there are several causes that serve to strengthen that fear, especially when the proposed changes are toward professionalism. Many policemen view the ethics and ideals of professionalization as being irrelevant, and even in opposition, to their present values. Professionals and new police administrators advocate higher education, but this is seen as a waste of time to most men, or threatening to older officers who have long since finished their formal education. The new thrust often includes an awareness of the rights of

minorities, but officers frequently view this as weakness and a concession to 'the other side'. The new police mentality advocates activity and involvement with the public which is unsettling to the veterans who either want to catch criminals or do as little as necessary to obtain a regular paycheck (Niederhoffer, 1967). Thus members of the force feel threatened not only by the unknown but by the little they do know about the proposed changes.

The resistance to change is so pervasive and accepted that when a captain is directed to introduce a change in regulations to his subordinates, he aligns himself with his men, "demonstrating to them in their presence that he is a 'good guy', and requiring their adherence to changes only after indicating that he is helpless to do otherwise in the face of superior authority" (Rubinstein, 1973, pp. 30-31). The officers, in turn, interpret the purpose behind any alteration of enforcement policy by a commanding officer as the desire to create an impressive record on paper, rather than to legitimately improve police services (Niederhoffer, 1967).

c. If the police are wary of outsiders in general, they are terrified of outside researchers and academic scholars (Freeman and Sherwood, 1970). Bennis, writing about organizational change, stated that the academic community has long snubbed the natural world, and perceived it,

> ...with dark suspicion, as if contact with the world of reality...was equivalent to a dreadful form of pollution. In fact, academic man has historically taken one of two stances toward the

> Establishment, any Establishment--that of rebellious critic or of withdrawn snob. (1971, p. 364)

The police have even greater 'justification' in avoiding outside researchers; findings by social scientists from as early as 1916 have done little but uncover allegedly inferior IQs, low masculinity, schizoid personalities and other non-constructive, very threatening revelations (Niederhoffer, 1967). It is not difficult to understand the resistance of police agencies to expose themselves to other researchers, despite the more productive and non-judgmental proposals they may advocate.

It may prove worthwhile to review briefly this section on police and its relationship to the present study. Contrary to their stereotype, police officers spend the majority of their time maintaining order and providing services. Such maintenance of order functions require a continual exercise of personal discretion by each officer, often in interpersonal situations in which the emotional states of the parties are extreme, and even a slight indiscretion by an officer may exacerbate the problem. Despite the increased attention given to police training in many academies, by all standards, the amount of training is still minimal. More importantly, its relevance to a policeman's daily functioning may be seriously questioned.

An examination of training needs indicated that an increased awareness of social sensitivity and human dynamics may readily benefit both police officers and the public with whom

they interact. Inhibiting the successful implementation of this type of training, however, are considerations relevant to most police organizations, such as: the atmosphere of obedience to authority, the autocratic organizational structure, the lack of upward communication, a mistrust of outsiders, and lastly, their negative, prior experience with social scientists.

Having touched upon several sources of police resistance to change, training, and researchers, the present dearth of effective police training is far from surprising. For these reasons it becomes perfectly understandable that the pioneering efforts of Bard (1969; 1970a; 1972; Zacker and Bard, 1973a), and other recent research training projects, have been devoted at least as much to the process of introducing training, e.g., active collaboration, as to the content itself.

Rationale for present study

It is to this problem of evolving an effective method of training police officers that this project addresses itself. It was the intention of the investigator to determine if an officer's repeated exposure to a self-administered questionnaire can increase the social perceptive abilities of the officer.

Referring to the criteria set forth above in selecting a suitable respondent population (see p. 18), the advantages in utilizing police officers are now apparent. The police are frequently called to intervene in interpersonal conflicts in which emotional states are high. The ability of these

officers to judge the emotional states of the parties in these interventions has been shown to be a useful, if not necessary, skill in the successful performance of their duties. Further, it is obvious that an officer's skill in social perception will benefit the public he serves just as much, if not more, than the officer himself. Lastly, if this study produces any useful findings, there is at least some chance that they may be generalizable to other police departments, thus increasing the potential value and benefit of the research.

Context of study

The opportunity to test this method of training was provided in the context of a larger, more comprehensive research project on police intervention in interpersonal conflicts. This larger project was the third in "a spiral of steps each of which is composed of a circle of planning, action, and fact-finding about the result of the action" (Lewin, 1948, p. 201).

The first was a two-year demonstration in family crisis intervention which attempted to modify family assaults and homicides in a circumscribed area of New York City, as well as to reduce the personal danger to police officers intervening in such situations (Bard, 1970b). In addition, the project attempted to develop a new preventive mental health strategy by training selective policemen in the interpersonal skills needed to effect constructive outcomes in deteriorating situations that required police intervention.

The second project, spanning fifteen months, was a quasi-experimental test of the preceding demonstration's findings. In this study policemen of the New York City Housing Authority were trained in the exercise of conflict management skills within an experimental design that permitted the elaboration of methodological refinements and afforded an opportunity to gain new insights regarding the action techniques employed (Bard, Zacker and Rutter, 1972).

This most recent third project, funded by the Police Foundation, was an active collaboration between social scientists and working police officers to accumulate naturalistic data (i.e., obtained from real-life situations) in order to identify, codify and make available spontaneous third-party approaches to other police officers. The collaborative effort to study how policemen, who are not specially trained in third-party intervention approaches, typically intervene in dispute situations combined social science researchers from The City University of New York with police officers from the Norwalk, Connecticut, Department of Police Services between June, 1973, and October, 1974.

During the first phase of the project, participating police officers systematically observed and recorded their approaches to conflict situations on specially designed Dispute Forms. A detailed debriefing involving the investigating officer and a research assistant was held for each interpersonal conflict within a few days of the intervention, to better focus on the behavioral components of the approaches.

This phase of field observation spanned four months, and twenty officers participated from the 4:00 p.m. to midnight shift. The intervention behaviors were categorized into discrete approaches which were then studied, defined, further categorized and evaluated as a first step in developing a body of knowledge for the training of other officers in successful conflict intervention techniques. Subsequent phases involved field testing several of the uncovered approaches and an analysis of the data accumulated.

The major source of information during the first phase of the Norwalk project was the self-report Dispute Forms (see Appendix A) which were completed for each interpersonal conflict in which a participating officer was involved. These self-report checklists, however, were expected to be more than a method of information transference, but rather a structured learning experience.

The Dispute Forms for Phase I were designed to convey the actions of the parties and officers so that others were able to reconstruct the total intervention. Included in the forms was a separate item (No. 11) asking the officer to indicate, along a five-point scale, the "intensity of feelings shown" by each of the parties for each of four emotions: anger, fear, shame and suffering. During the debriefings following each intervention, officers were questioned about omissions, impressions, inconsistencies, etc. concerning all aspects of the intervention, but their responses to Item 11 were left unchallenged and were not the focus of discussion.

In this way each participating officer completed the checklist, relating the labels of emotions to his recent experience on the job in which these emotions were likely displayed. The checklist completion was repeated for each interpersonal conflict, ensuring a greater exposure to the treatment variable--completing the self-report--and further strengthening the associative bond between the checklist labels and the emotions themselves.

Since officers tend to be exposed to situations in which parties are under stress, sensitivity to emotional states and their recognition should play a more significant part in their daily routine; it was hoped that this process would be more noticeable than with individuals who have less contact with extreme emotional states. This greater exposure of policemen to the extremes of human emotion was expected to hasten the discrimination process as well, through the use of social reinforcement in interpersonal conflict situations.

In addition to the variety of reinforcements the respondents received, as discussed above, the officer's increased skill in social perception should have enabled him to better predict the behavior of others and the implications of his own actions. This knowledge can then be viewed as a useful tool in controlling interpersonal situations, and his reliance on physically controlling the people he polices should be minimized (Rubinstein, 1973).

The reward of a greater ability to empathize with others takes on new significance with police officers. Understanding

why people may be saying the things they do, should allow officers to take these remarks less personally, freeing them to react to the situation with more logic and less of their own emotion. For those officers who use their ability in this way, the likelihood that the intervention will be effective is increased (Walton, 1969), and the probability of physical harm decreased.

An additional source of reinforcement that should not be minimized, especially in an authoritarian organization, is the officer's knowledge that he is actively participating in a project approved by 'the brass'. Just as subjects seek to satisfy experimenters, it is not unlikely to see some policemen trying to satisfy their superior officers and the social scientists involved in the project.

If this proposed method of teaching ('learning' is more accurate) should prove at all effective, its potential application to an institution such as the police becomes apparent. It employs practically no didactic inputs or classroom presentations which have traditionally alienated officers. In classroom situations officers often assume the passive role of listener, despite their general action-orientation (National Advisory Commission, 1973). Further, it may be that the passivity fostered in officers exposed to traditional classroom training,

> is countervalent to the <u>activity</u> required in effective police work. Hence the policeman-practitioner may be seriously compromised in both his ability to process information received while

> in a passive mode and in translating it to the active mode required by his daily functioning. (Zacker and Bard, 1973b, p. 207)

This approach also requires practically no writing--merely checking--thus avoiding a great source of irritation to officers who both hate and fear committing themselves to paper (Rubinstein, 1973), especially considering the inordinate amount of paper work with which they must already contend.

Instead, this method of self-instruction relies on the individual's utilization of his own experiences in the settings in which these experiences occur. This, in its own right, overcomes one of the major difficulties in creating effective education--the transfer of learning (Cronbach, 1963; Davitz and Ball, 1970; Lorree, 1970), for this "active learning mode is consistent with the mode required in (the officer's daily) on-the-job functioning" (Zacker and Bard, 1973b, p. 207).

HYPOTHESES

1. Completing behavioral observational checklists (Dispute Forms) will result in a greater awareness of the emotional states of others.
   a) The ability of subjects to recognize emotional states in others will increase.
   b) The ability of subjects to recognize emotional states in others will increase more for those officers with the least police experience. This ability for those officers with more police experience will increase less.
   c) The ability of subjects to recognize emotional states in others will increase more for those officers completing the greatest number of forms. This ability for those officers completing fewer forms will increase less.

2. Completing behavioral observational checklists (Dispute Forms) will result in greater accuracy in judging the emotional states and in predicting the behavior of others.
   a) The degree of accuracy of subjects to judge the emotional states and to predict the behavior of others will increase.
   b) The degree of accuracy of subjects to judge the emotional states and to predict the behavior of others will increase more for those officers with the least

police experience. The degree of accuracy for those officers with more police experience will increase less.

c) The degree of accuracy of subjects to judge the emotional states and to predict the behavior of others will increase more for those officers completing the greatest number of forms. The degree of accuracy for those officers completing fewer forms will increase less.

METHOD

The proposed study utilized a 'one-group, pretest-posttest experimental design' in which measures were obtained before and after the administration of the treatment variable--completing the Dispute Forms (Caporaso and Roos, 1973; Campbell, 1969). More importantly, perhaps, the methodology displayed the inevitable trade-off between the experimental precision desired in pure research and the lack of experimental control characteristic of naturalistic studies (Campbell and Stanley, 1963; Kelman, 1968).

In a manner similar to several of the social sciences, social psychology has attempted to gain precision and clarity in experimental analysis by reducing the complexity of naturally occurring events to just a few, more manageable variables. Unfortunately this practice of gaining experimental control, modeled after the laboratory experiments of the physical sciences, has often led to the sacrificing of realism. Researchers have recently noted this trend and have expressed doubt as to the validity, generalizability and ultimate usefulness of experimental findings that remain untested in natural situations (Bakan, 1967; Fairweather, 1968; Kelman, 1968; Lewin, 1948; McGuire, 1967).

This study was conducted in the same environment in which its techniques, if considered of value, are intended to be employed. Indeed, the potential value of this project was mostly in its setting--a police agency with working policemen. The

'uniqueness' of the study is not to be found solely in the treatment variable--talented educators have used self-instruction and experiential learning techniques before recorded history--nor in the treatment population, but in the resulting synthesis.

> Once the social scientist moves from the laboratory to the field, however, he or she is confronted with (different) complex methodological issues which are related primarily to the investigator's lack of control over the circumstances of the research (Campbell, 1969; Fairweather, 1968; Sarason, 1967). Whereas "laboratory" factors tend to affect the authenticity of the process observed, "natural" factors tend to influence the adequacy of design of the study and the data assembled. (Connolly, 1973, p. 33)

The problems of conducting field research may be more easily seen by listing several methodological limitations encountered in the design of this study.

1. Sample size. External constraints limited the project in third-party interventions to approximately twenty participating officers. With this size sample, the validity of generalization is somewhat limited and the probability of acquiring statistically significant findings is reduced.

2. Comparison groups. Due to the higher rate of activity, police subjects were selected from the evening shift, i.e., 4:00 p.m. to midnight. Staffing on this shift consists of three squads, each composed of 10-12 officers. For the first phase of this study, the total population of two of the three squads participated, the particular squads being selected randomly. This method of selection, in effect involving all the

men in two squads, maximized the probability of obtaining a true representative sample of working policemen. At the same time, it means that these men differ along many dimensions that could influence the learning of emotional states, e.g., age, experience, motivation, race, authoritarianism, activity on beat, etc. Given the small sample size, isolating the effect of more than one or two of these many variables is not possible. For this project two variables seem particularly relevant--experience as a policeman and extent of involvement in the project.

It is assumed that as an officer gains experience, he develops 'set methods' of handling situations. Once an officer feels comfortable in his normal routine, even if not totally satisfied (Niederhoffer, 1967; Rubinstein, 1973), it is assumed that he will be more resistant to change. Less seasoned policemen have 'less to lose' in trying new ideas since they may still be in the process of establishing their own style of operation.

The other consideration, that of involvement in the project, assumes that the more exposure an officer has to the treatment variable, i.e., completing Dispute Forms, the greater the learning that will take place; this is based on the established relationship between learning and repetition (Arnstine, 1967; Cronbach, 1963; Lorree, 1970; Morse and Wingo, 1969). For this reason, the degree of exposure to the check-lists and police experience have been selected as perhaps the

most critical of these variables, and will thus receive considerable attention and analysis (see Hypotheses).

In addition, the use of the pre-post measurements on a 'control group' was not feasible. In order to be at all helpful, the members of a control group would have to share with the project participants not only the attributes listed above but exposure to the same stimuli as well, i.e., job responsibility, types of interventions, pressures from commanding officers, peers and community. It was felt by those designing and conducting the project that such a control group would have to be composed of other officers in the Norwalk Police Department; even the use of officers from other departments would introduce too many variables so that reliable comparison with the small sample size of the treatment population would not be possible. The use of other officers in Norwalk, however, was ruled out because of political and economic considerations. In a project in which good-will, clear intentions, and good communication are essential, the possible alienation and scuttle-butt from control group participants could easily have proven harmful to the whole collaborative process. Evaluation was therefore confined largely to the use of the individual officers serving as their own 'controls' in the pre-post design.

3. Placement of checklist within Dispute Form. By including the behavioral observation checklist (Item 11) within the more comprehensive Dispute Form, additional variables emerge as possible sources of influence and contamination.

The 'treatment' variable may no longer be considered exposure solely to the checklist, but rather to the completion of the whole Dispute Form and the subsequent debriefing. However, only the checklist item is specifically related to the emotional states of the other parties; the other items are devoted to demographic data about the disputants and the actions of the officer and other parties. To the extent that officers include the emotions of the parties in their behavioral descriptions of the interactions, they are displaying their greater sensitivity to these emotions, a process that is both sought and predicted in this study.

Thus, even if the 'treatment' is accepted as completing the Dispute Forms and debriefing, it still represents a significant departure from traditional teaching methods, and maintains the distinctive benefits discussed above. To the extent that the results support the hypotheses, further research is indicated to isolate and modify the specific forces in operation.

It should be noted that although the inclusion of the checklist of emotions within the broader Dispute Form has been dealt with as a possibly unwanted source of contamination, it includes distinct advantages that otherwise may have precluded any testing of the hypotheses in such a natural setting. By cloaking this study in the context of a non-evaluative method of seeking information about police actions in conflict situations, officers were far less resistant to complying with the demands of this sub-study on emotions, i.e., completing the

checklist in Item 11. If the checklist were administered in isolation, the attention of officers may have remained on the possible negative purposes of the checklist completion, rather than on the emotions themselves.

Therefore including the checklist with other informational responses may be viewed most profitably as an appropriate adaptation to the demands of the real world in order to obtain more naturalistic data.

4. Anonymity. Policemen, like most people, tend to dislike committing themselves in writing, but with the additional purpose of guarding themselves against negative repercussions from commanding officers (Rubinstein, 1973). In addition, to take a test is to subject oneself to a challenge, one that may not be especially welcome. To minimize alienation and resistance the pre and post measures were taken anonymously, by having the officers create their own 3-digit code number that they used on both the pre and post-testing. This prevented the matching of measurement scores with particular personality traits and other clinically-rich data that may otherwise have proven valuable in evaluating possible changes in this group of subjects.

Position of researcher. The investigator was one of three research assistants involved in the broader Norwalk project investigating third-party interventions in interpersonal conflicts, as discussed above. Since the Norwalk Police Department agreed to actively collaborate in the project, their full cooperation, at least on higher levels, was anti-

cipated and received. The frequent debriefings and personal contact between research assistants and officers were expected to reduce some of the interpersonal barriers that are expected during the initial meetings. A fuller discussion of this area is included in the Discussion section.

Although this study on judging emotional states involved evaluating officers' perceptions and accuracy, this was done in the context of the broader, non-evaluative project on interpersonal intervention. It was hoped that the threat of evaluation was minimized due to the nature of the larger project and through the acquired trust in the project personnel that was gained through frequent contact.

Research procedure

The following are the measures and scoring procedures which were used for both the pre and post-testing. Also included after each measure is the relationship between the measure and the Hypotheses stated above (pp. 49-50).

Six Factor Tests of Social Intelligence. This is a recently developed (O'Sullivan and Guilford, 1966) battery of six factor tests that was designed to minimize the heavy loading of verbal and memory-ability factors that have been so prominent in earlier tests of social intelligence (Moss, et al., 1927; Thorndike, 1936; Woodrow, 1939; Buros, 1965). For this project two factor tests were selected.

A. Missing Cartoons.

1. The stimuli in each item are in the form of a set of cartoons composing a sequence of events or situations,

the whole set telling a little story. The officer was asked to choose one of four cartoon panels that best fills a blank in an otherwise complete sequence. The test's 28 items were divided in half so that each officer completed a different half during the two administrations. First and second 'halves' were randomly distributed during the pre-administration as an additional safeguard against experimental bias.

The reliability of the test's 28 items is .82, but with the administration of only 14 items the reliability was significantly reduced. Even with the limited reliability, Missing Cartoons appeared to be the most appropriate 'pencil and paper' test of social sensitivity. Both this test and Expression Grouping required less than one hour to administer and instructions were not overly complex, requisites when considering the placement of this study in the context of the broader collaborative effort with working police officers.

2. This test is assumed to be the best single measure of an individual's accuracy in judging emotional states of others and in understanding behavioral implications, i.e., interpersonal dynamics, that was used in the study; it thus relates to Hypothesis 2.

B. Expression Grouping.

1. Each item in this test consists of a group of three line drawings designed to establish a class that is to be cognized. The drawings depict facial expressions, hand gestures, and body postures, in various collections. The officer was asked to select one of four alternative drawings

that 'belongs' with the other three. The test's 30 items were halved and administered in a manner similar to Missing Cartoons.

The reliability of the test, .61, is even lower than Missing Cartoons, and decreases further when only half the items are administered. Other than Missing Cartoons, however, Expression Grouping appeared to measure recognition of emotional states in a manner that relied less on verbal, memory or intellectual abilities than other standardized tests. Both this factor test and Missing Cartoons were timed.

2. Expression Grouping is assumed to assess an individual's accuracy in judging the emotional states of others, and is also related to Hypothesis 2.

Videotape Forms.

1. Each squad was shown a different videotape segment of police intervention in an interpersonal conflict. After viewing, each officer completed a standard Dispute Form (see Appendix A) as though he had been the investigating officer during the dispute.

The scoring was done on the basis of the Intensity of Emotions item (No. 11) with the focus on the awareness of the existence of the emotions of the parties. Since the five-point scale indicating the intensity of the feelings included 'none' (the others are: 'just a little', 'some', 'much' and 'very much'), the number of checked-off emotions other than 'none' was tallied. This score thus indicates the frequency with

which an officer perceived each of the four emotions for the two parties, regardless of exact intensity.

It should be noted that the pre-post measurement of the Videotape Form involved the showing of two different segments. Squad A viewed Tape 1 pre, and Tape 2 post. Squad B saw the tapes in the reverse order to eliminate the possibility of a "practice effect" (Hilgard and Bower, 1966). Tapes 1 and 2 each presented a segment from a different situation, one a barroom confrontation and the other a domestic quarrel. Thus on first glance the two tapes should not be considered equivalent measures for a pre-post comparison since each emotion was not displayed in the same intensity by each taped performer.

The tapes were viewed by three non-police judges who were not acquainted with the purposes or structure of the study. The judges were composed of one woman and two men. The woman is a registered nurse. The others are a clinical psychologist and a television producer/technician. They were selected for their ability to 'read' others, as skilled practitioners in these particular fields must do. Representatives from three different professions were selected to eliminate possible bias that might be inherent in a specific field. All were acquainted with the author but were uninformed as to the nature of the project.

The judges participated at the same videotape showing but with no interaction on this first task. They were given a checklist of thirteen emotions--affection, amusement, anger, despair, disgust, embarrassment, fear, jealousy, joy, suffering,

pride, shame, sorrow--and were asked to check which of the emotions were exhibited in the tapes.

Each judge's completed checklist indicated the presence of the four emotions listed in the Dispute Form: anger, fear, shame, suffering. Since the police respondents were not scored on the basis of accuracy, i.e., intensity of emotion, but solely on the basis of the existence of the emotion, the two tapes were felt to be comparable measures. That is, each tape contained at least one example of all the emotions contained in the Dispute Form--the total 'score' for each form could range from 0 to 8 regardless of the tape viewed.

2. According to Hypothesis 1, more emotions should be checked-off, other than 'none', on the post-administration than on the pre-administration. By disregarding the 'accuracy' of the officer's perception (Hypothesis 2), each officer's pre and post scores were able to be compared, despite the fact that they were based on the viewing of different videotapes.

This assumption of comparability was later tested by an inter-squad analysis of the pre and post data for this item. The results supported the assumption, and are presented in the Results section below.

Dispute Forms.

1. This measure, ironically, is also the treatment variable--the standard Dispute Form completed by each participating officer after an interpersonal conflict intervention. The scoring was identical to that which was used with the Videotape Forms measure; the score for a Dispute Form was the

number of emotions, other than 'none', checked-off by the officer for the two parties on Item 11.

The method of scoring the Dispute Forms measure involved the division of this phase of the study, in which each officer completed a Dispute Form for a conflict intervention, into three approximately equal time periods: 9/17 - 10/30, 11/1 - 12/10, 12/11 - 1/15. The scores for all Dispute Forms in each time period were averaged for each officer. The pre-post Dispute Form scores for each officer represent the average scores of the first time period and the third.

2. It should be noted that this was the only measure obtained during the 'natural' course of data-gathering in the project, rather than in the more artificial classroom situation. Since any measure of accuracy in unwitnessed, real-life conflicts would be quite difficult to obtain, and its efficacy questionable, it was decided to use this source of real data as another measure of Hypothesis 1. That is, in conflicts handled by an officer early in the project less emotions should be perceived than towards the end of Phase I.

Open-ended: Social Sensitivity Ratio.

1. A third videotape segment of police intervention in a 'true life' interpersonal conflict was shown both pre and post to both squads. On a mostly empty sheet of paper each officer was asked, "what important things were taking place in this scene?" and what was the "likely outcome of the situation?" (see Appendix B). No other indications were given concerning the type of responses being sought or the way they were to be

structured. These responses contain a richness of data, and many possible scoring procedures.

A measurement that was formed from this unstructured data, and which it is thought best meets the objectives of this study, has been labeled the Social Sensitivity Ratio (SSR). Its construction and rationale will now be described.

The Social Sensitivity Ratio (SSR) was computed for each officer by dividing the number of 'socially sensitive' or 'emotional' thought units by the total number of thoughts expressed. The three judges who had earlier identified various emotions for the Videotape Form measure, were asked to independently score each protocol for the identification of individual thought units. They were then requested to re-score each open-ended questionnaire to identify only the thought units related to 'emotional states', without knowledge of the prior scoring each protocol had received for 'total' thought units.

Before commencing, the concept of a 'thought unit' was discussed jointly by the three judges and author through description and example, until concensus was reached. A 'thought unit' was defined as a self-contained group of words that expresses an assertion, opinion, concern or question about one theme. The thought unit does not depend on grammatical rules or number of words. For example, if one of the videotaped disputants had a knife, the word "knife" was scored as a 'neutral' thought unit. Several sentences

describing possession of the knife would also be scored as one thought unit.

'Emotional' thought units included any expression of the emotional or psychological states of the parties in the conflict, considerations of human dynamics, consequences of behavior, underlying causes of the conflict, attitudes of parties or police officers, etc. "Man left angry" and "husband will return" are examples of 'socially sensitive' thought units.

The score for each protocol was the average of the scores for the three judges. By dividing the number of 'socially sensitive' thought units by the total number of thoughts expressed, the SSR provides an indication of the relative importance of 'socially sensitive' factors in relation to the total number of inputs perceived and recorded by an officer, i.e., how he sees a conflict. In this way the SSR is not unduly influenced by the verbosity of the respondent; the measure is dependent on the percentage of 'socially sensitive' thoughts rather than absolute numbers.

The construction of the Social Sensitivity Ratio in this manner overcomes several possible objections to a measure based solely on the number of 'socially sensitive' thought units. The theory of 'demand characteristics' (Orne, 1962) would predict a tendency for respondents to please experimenters. As the project continued and most officers became more favorably predisposed toward active participation, the theory of demand characteristics would predict increased motivation to cooperate in completing the measures, i.e., motivation and performance should be greater on post-testing than prior to participation.

Another possible complication involves the difference in motivation among individual officers.

On the open-ended questionnaire, it may be assumed that increased motivation will manifest itself as an increase in total recorded thought units. Since there was no indication that social sensitivity was the quality to be evaluated, it is logical to assume that the increased number of total thought units should include both more 'neutral' and 'socially sensitive' thoughts.

If the measure was composed of only the absolute number of 'socially sensitive' statements, an increase in pre-post scores could indicate greater motivation rather than greater awareness of emotional states. The use of absolute numbers would also cast doubt on the legitimacy of comparisons among different officers because the number of statements made in answering an open-ended question cannot be assumed to be an accurate reflection of all that the officers saw.

By making the SSR a ratio of socially sensitive thought units to total recorded thought units, no attempt is made to measure all stimuli perceived by each officer. Rather it is designed to indicate the relative salience of socially sensitive stimuli in relation to the officer's total phenomenological field. Thus a somewhat reticent respondent may possess a greater sensitivity to emotional states than a more verbal colleague; the SSR is designed to reflect the way an officer perceives conflict interaction, and not his verbal abilities and motivation. Pre-post comparisons for individual officers and comparisons among different officers can be made more

comfortably because the SSR is not dependent on an officer's writing abilities or motivation.

For these reasons the Social Sensitivity Ratio (SSR) was deemed the most informative measure that was extracted from the open-ended questions, and is therefore considered as one of the five basic measures in this study. The mean number of total thought units and the mean number of 'socially sensitive' units, both of which are utilized in the computation of the SSR, will be presented separately in the Results section.

2. Due to the lack of specificity involved in this measure, it may be predicted that Hypothesis 1 will receive indirect support if the ratio of 'socially sensitive' to 'total' thought units increases between the pre and post-administrations.

Treatment population. The participants in this sub-project were all the officers involved in Phase I. For this reason the pre-measures were obtained during the orientation sessions for Squads A and B on September 10, and 12, 1973. The rationale for the use of measurements in the project were explained fully to the men and all questions were answered. The post-testing took place after the completion of Phase I but before the start of Phase II, in the latter part of February, 1974.

The treatment population was composed of two squads, all the men being 'requested' by their superiors to participate. Of the total of 21 in the two squads, 19 completed the measurements both pre and post. One officer attended the orientation

meeting and immediately expressed ambivalence, noting the obvious benefits of the study but possible infringement of personal rights as well. The following week he requested to be excused from participation in the study. The request was granted with no repercussions. It should be noted that this officer was involved in an interracial marriage, and cited numerous examples of harassment from both peers and superiors during our initial contacts. The second officer was dropped from the analysis after he had completed the pre-measures, reported no conflict interventions during the treatment period, and was 'unavailable' during the post-testing allegedly because his wife was suspicious of any off-hours not spent at home.

To minimize the anxiety and threat created by any testing situation, the officers were asked to create their own 3-digit code number that they used on both the pre and post-testing, as noted above.

Choice of statistical test. For each measure, pre and post, the data was collected in a manner that allowed the pairing of scores for each respondent; each of five measures was obtained for the same subject at two different times. Correlated Student's t test was chosen as the most appropriate statistical measure for this "before and after" design in which each subject served as his own 'control'. As will be discussed immediately below under "Factors in evaluation", half the anticipated number of conflict interventions were found relevant to the study. This marked decrease precluded the use of an analysis of variance test for over-all significance due to insufficient

sample size in the individual factor cells for 'experience' and 'exposure'.

In order to test for significant change in any measure, the means were compared by subjecting the correlated t test to the additional rigor of Tukey's Correction for Chance Formula, also known as the Honestly Significant Difference procedure for multiple t tests (Winer, 1962). For example, to compare the pre and post mean scores of the Missing Cartoon measure for the full treatment sample (n = 19), the correlated t test yielded t = 1.98. With 17 degrees of freedom, this statistic would usually be significant at $p < .05$ since $t \geqslant 1.74$. But similar pre-post comparisons will be computed for the other four measures as well. As more comparisons are made, the likelihood that <u>any one</u> t-test will produce a value falling into the area of rejection, i.e., $t \geqslant 1.74$ in the above example, purely by chance (alpha error) is greater than five per cent. Indeed, if 100 such t-tests are computed with a .05 level of rejection, one should <u>expect</u> five comparisons to fall into the area of rejection strictly on the basis of chance.*

By utilizing Tukey's Correction for Chance Formula the critical values of t are increased before rejecting the null hypothesis of no difference in the populations from which the means were computed. In the example above, the t value of 1.98

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* There are several recognized methods to reduce the probability of a type 1 (alpha) error when performing multiple t tests. The Tukey procedure was selected because of its conservatism, its applicability "in a relatively broad class of situations" and its simplicity in use (Winer, 1962, p. 89).

for Missing Cartoons did not prove significant at $p < .05$ when subjected to Tukey's Correction Formula, despite its significance without Tukey. It did, however, exhibit a trend in the predicted direction, significant at the .10 level of rejection.

For all pre-post comparisons, one-tailed statistical tests were utilized since all changes can be assumed to occur in the predicted direction, i.e., test scores should increase after participation in the study. However, when sub-groups were compared, e.g., 0-2 years vs. 2.1 - 5 years, a two-tailed area of rejection was employed. This procedure was followed despite expectations that certain sub-groups would achieve higher scores than others (see Hypotheses, pp. 49-50) since such predictions were primarily a vehicle for research exploration, and the interest in differences among sub-group populations is not limited to only one direction.

Factors in evaluation. To partially compensate for the lack of controls and the small sample size of about twenty officers, various methods of analysis were employed. Since each officer assigned himself the same code number for the pre-post testing, it was possible to gain statistical strength through the use of paired data, i.e., each subject serving as his own 'control'. Also by categorizing the officers into different levels of police experience and involvement in the project, an analysis of these variables was feasible. For example, the categorizing procedure for experience consists of dividing the officers into three groupings: 0-2 years ($n = 6$); 2.1 - 5 years ($n = 6$); and 5.1 + years ($n = 7$). The

selection of such categories should fulfill the needs of both logic and frequency distribution.

Similar considerations led to the establishment of involvement categories based on the number of completed Dispute Forms for each officer during the phase. It had been anticipated that 300-350 interventions appropriate to the study would be handled by the participating officers during the four months of the first phase. This prediction was based on an examination of Norwalk log entries for previous years, a process limited by the discrepancy between the department's classification system and the narrowly-defined conflicts for the purpose of our study. That is, a call that was listed as a "dispute" in the log of the Norwalk Police Department may not have been useable in the study, e.g., only one of the parties may have been contacted by the officer.

On the basis of our predictions, the range of completed Dispute Forms for each officer would probably have been wide, with a predicted mean of at least 15 forms for each of the officers. Our experience in the real world was considerably different. 150 conflicts were judged by the investigators to be appropriate in the full four months, yielding a mean of less than 8 completed Dispute Forms per officer, with a much smaller dispersion than anticipated. The possible effects of this change on the factor of 'exposure' as related to Hypotheses 1c and 2c will be discussed later.

For purposes of analysis, the factor of Exposure was composed of the following four groups: 0-3 completed Dispute Forms, (n = 6); 4-9 Forms, (n = 5); 10 or more Forms, (n = 3);

Panelists, regardless of the number of Dispute Forms each officer had personally completed (n = 5). The Panelist category was composed of five officers who were elected by, and from, the whole group of participating officers to join the research staff in categorizing intervention behaviors into discrete conflict approaches. It was assumed that the long hours spent by Panelists analyzing others' completed Forms was the most intense 'treatment' of all.

RESULTS

Inter-squad Comparisons

Because the two police squads were not selected randomly from a sample, there was the possibility that some intervening variables made one squad uniquely different from the other. Therefore the first task was to determine if the treatment population constituted a homogeneous grouping by making an inter-group comparison over the ten variables, i.e., five measurements, each pre and post.

This comparison was done through the use of the Student's t test with Tukey's correction formula for ten means. As shown in Table 1, no single difference between squads was significant, and there was no distinctive pattern of superiority of one squad over the other, indicating that the data obtained from the two squads could be pooled--that in fact we had a single homogeneous group.

The rationale for allowing pre-post comparisons to be made for Videotape Forms, despite the utilization of two different segments, was discussed above (see Methodology, pp. 59-61). To further determine if the measures were indeed equivalent in practical use, a post-hoc comparison of the results was made. As may be seen for Videotape Forms in Table 1, there were no significant differences between squads for either the pre or post administration ($t = 0.95$ & 0.37 respectively), despite the difference in tapes viewed. Also noteworthy is that each squad showed a change in the predicted direction, regardless of the order in which they were exposed to the tapes.

Table 1. Inter-squad comparison of means, pre and post, for each measure.

		Squad A	Squad B	t-value
Missing Cartoons				
	pre	9.25	8.92	.24
	post	9.38	10.44	.87
Expression Grouping				
	pre	9.78	9.88	.11
	post	9.80	9.61	.24
Videotape Forms				
	pre	2.30	3.00	.95
	post	3.40	3.67	.37
Dispute Forms				
	pre	2.46	3.22	1.88
	post	3.11	5.00	3.00*
Social Sensitivity Ratio				
	pre	.33	.34	.09
	post	.52	.54	.22

* Not significant using Tukey ($\mathcal{N}$ = 10) even at .10 level of significance.

Both the hypothetical constructs and the collected data thus indicate that the two videotape segments constitute equivalent measures, allowing us to pool the data between squads for Videotape Forms as we have done for all other measures.

Pre-post Changes

a. Total Population

Pre-post changes were computed by comparing the mean scores for each measurement across the total treatment population -- n = 19 except for Dispute Forms discussed below --

through the use of the correlated t test previously described. As is seen in Table 2, pre-post mean changes reached significance in three of the five measures.

Table 2. Pre-post comparison of means for each measure for total population.

	(df)	pre	post	t-value	p (Tukey $\mathcal{M}$ = 5)
Missing Cartoons	(17)	9.09	9.88	1.98	.10
Expression Grouping	(17)	9.83	9.71	-.30	n.s.
Videotape Forms	(17)	2.63	3.53	2.49	.05
Dispute Forms	(14)	2.84	4.06	4.37	.01
Social Sensitivity Ratio	(17)	.35	.53	4.23	.01

For the measurements of Dispute Forms and Social Sensitivity Ratio (SSR) significance was reached at $p < .01$, while the Videotape Forms were significant at $p < .05$. The Missing Cartoons measure did not reach a .05 level of significance when subjected to the rigor of Tukey's Correction Formula, although its change in the predicted direction was a definite trend at $p < .10$. There was no appreciable change in Expression Grouping.

b. Missing Cartoons

A pre-post comparison of means, computed for the total treatment population, yielded a test performance improvement that does not reach $p < .05$, but can be considered a trend at $p < .10$.

Experience. Figure 1(a) (p. 87) graphically presents pre-post changes in mean scores for each of three experience categories that compose the treatment population: 0-2 years (n = 6); 2.1 - 5 years (n = 6); 5.1 + years (n = 7). Table 3 includes a detailed presentation of the same data for the factor of experience, as well as the results of statistical analysis.

The least experienced group, 0-2 years, improved in the predicted direction, as did the group of men who have been on the police force more than five years. Neither group's change reached significance, although the former displayed a trend of $p < .10$. The scores for the group with more than five years experience started and remained below that of the other two groups; on the post-testing the mean scores of this group were found to be significantly lower than the least experienced group, at $p < .05$ using an uncorrelated student's t test with Tukey's Correction for Chance Formula for three means. No change occurred in the intermediate experience group.

Table 3. Pre-post mean comparison of Missing Cartoons by factor of Experience.

	n	pre	post	t-value	p (Tukey $\mathcal{H} = 3$)
0-2 years	6	9.62	11.33	1.93	.10
2.1 - 5 years	6	11.04	10.83	-.46	n.s.
5.1 + years	7	6.96	7.82	1.11	n.s.
Total	19	9.09	9.88	1.98	.05*

* Without Tukey's Correction for Chance Formula

Exposure. Figure 2(a) (p. 89) is a graphical presentation of pre-post mean scores for each of four 'exposure' categories in which the 19 subjects have been placed for purposes of analysis. Group A consists of those officers who completed 0-3 Forms; Group B, 4-9 Forms; Group C, 10 or more Forms; Group D, Panelists, regardless of the number of Forms completed. Table 4 includes a statistical analysis of the experience sub-groups, and shows that the only pre-post change that approached significance was produced by the Panelists ($p < .10$) who posted the lowest mean scores on both test administrations.

Table 4. Pre-post mean comparison of Missing Cartoons by factor of Exposure.

	n	pre	post	t-value	p (Tukey $\mathcal{A} = 4$)
0-3 Forms	6	11.58	12.50	1.12	n.s.
4-9 Forms	5	8.35	9.00	.65	n.s.
10 = Forms	3	9.92	9.00	-1.41	n.s.
Panelists	5	6.35	8.15	2.68	.10
Total	19	9.09	9.88	1.98	.05*

* Without Tukey's Correction for Chance Formula

c. Expression Grouping

A pre-post comparison for the total treatment population showed no significant difference.

Experience. Table 5 shows that no experience subgroups exhibited a significant change in mean scores. As may

be seen in Figure 1(b), the least-experienced group averaged higher test scores than their more experienced co-workers on both administrations, with this sub-group difference increasing significantly on the post-administration at $p < .05$.

Table 5. Pre-post mean comparison of Expression Grouping by factor of Experience.

	n	pre	post	t-value	p (Tukey $\alpha = 3$)
0-2 years	6	10.71	11.00	.45	n.s.
2.1 - 5 years	6	10.04	9.12	-.95	n.s.
5.1 + years	7	8.89	9.07	.41	n.s.
Total	19	9.83	9.71	-.30	n.s.

Exposure. Figure 2(b) and Table 6 show no significant pre-post changes for any 'exposure' sub-group, and no differences between sub-groups.

Table 6. Pre-post mean comparison of Expression Grouping by factor of Exposure.

	n	pre	post	t-value	p (Tukey $\alpha = 4$)
0-3 Forms	6	10.71	10.12	-.55	n.s.
4-9 Forms	5	9.85	9.80	-.06	n.s.
10 + Forms	3	9.00	8.33	-2.00	n.s.
Panelists	5	9.25	9.90	1.40	n.s.
Total	19	9.83	9.71	-.30	n.s.

d. Videotape Forms

A pre-post comparison of means, computed for the total treatment population, showed a test performance improvement at $p < .05$.

Experience. Figure 1(c) and Table 7 show pre-post improvement in both the least experienced and most experienced groups, although only the latter proved significant at $p < .05$. The 0-2 years group post-test performance was noticeably superior to both other groups, at a probability that approached .90. The officers with 2.1 - 5 years showed no pre-post change.

Table 7. Pre-post mean comparison of Videotape Forms by factor of Experience.

	n	pre	post	t-value	p (Tukey $\mathcal{K} = 3$)
0-2 years	6	3.00	4.17	1.15	n.s.
2.1 - 5 years	6	3.00	3.00	.00	n.s.
5.1 + years	7	2.00	3.43	3.33	.05
Total	19	2.63	3.53	2.49	.05*

* Tukey: $\mathcal{K} = 5$.

Exposure. Figure 2(c) shows that all four 'exposure' groups improved on the post-administration. As may be seen in Table 8, this change was significant at $p < .05$ for the men who completed ten or more Forms and was a trend at $p < .10$ for the Panelists. Differences among groups were narrowly dispersed, especially for the post scores.

Table 8. Pre-post mean comparison of Videotape Forms by factor of Exposure.

	n	pre	post	t-value	p (Tukey $\mathcal{M}$ = 4)
0-3 Forms	6	3.67	3.83	.16	n.s.
4-9 Forms	5	2.00	3.20	2.06	n.s.
10 + Forms	3	2.67	3.67	7.00	.05
Panelists	5	2.00	3.40	2.33	.10
Total	19	2.63	3.53	2.49	.05*

* Tukey: $\mathcal{M}$ = 5.

e. Dispute Forms

As previously discussed, this measure was the only one obtained 'in the field', away from the more artificial, classroom atmosphere. It was synonomous with the treatment variable -- the completion of Dispute Forms after appropriate interpersonal conflict interventions.

Due to the smaller number of appropriate disputes than was expected and its non-uniform frequency distribution, several officers did not complete at least one Dispute Form in both the first and third time periods and were thus dropped from the analysis of this measure. Of the three men left from consideration, two had less than two years experience and one had been on the force longer than five years; two of the three officers completed three Dispute Forms or less, while the other was a Panelist.

A comparison of first and third time period means, computed for all 16 participating officers, showed a significant increase in scores at $p < .01$.

Experience. As may be seen in Table 9, the two groups with the most experience showed significant improvement between the first and third periods: $p < .01$ for the 2.1 - 5 years group, and $p < .05$ for the group with more than five years experience. The improvement was not significant for the group with the least experience. This group scored lower than the more experienced officers in the first time period (see Figure 1(d)), although this difference was not statistically significant. The third time period inter-group difference between the group with less than two years experience and the groups with experience of more than two years approached $p < .05$.

Table 9. Pre-post mean comparison of Dispute Forms by factor of Experience.

	n	pre	post	t-value	p (Tukey $\mathcal{M} = 3$)
0-2 years	4	2.38	2.88	.48	n.s.
2.1 - 5 years	6	3.05	4.43	9.00	.01
5.1 + years	6	2.95	4.47	3.67	.05
Total	16	2.84	4.06	4.37	.01*

* Tukey: $\mathcal{M} = 5$.

Exposure. Figure 2(d) shows that all four exposure groups improved on the post-administration. As is shown in Table 10, this improvement was significant for three groups: 0-3 Forms ($p < .05$); 10 + Forms ($p < .01$); Panelists ($p < .01$). The improvement of officers completing 4-9 Dispute Forms failed to reach significance, and both their pre and post mean scores were the lowest of the four groups.

Table 10. Pre-post mean comparison of Dispute Forms by factor of Exposure.

	n	pre	post	t-value	p (Tukey $\mathcal{M} = 4$)
0-3 Forms	4	3.00	4.25	4.98	.05
4-9 Forms	5	2.50	3.00	.60	n.s.
10 + Forms	3	2.70	4.10	21.50	.01
Panelists	4	3.25	5.15	4.40	.01
Total	16	2.84	4.06	4.37	.01*

* Tukey: $\mathcal{M} = 5$.

f. Social Sensitivity Ratio

This measure was formed from the two open-ended questions that were answered after viewing a 'true life', videotaped, interpersonal conflict. Its lack of structure should indicate the relative salience of emotional cues for each officer.

A pre-post comparison of mean scores for SSR for the total treatment population indicates a change in the predicted direction, significant at $p < .01$.

Experience. Figure 1(e) (p. 88) shows an increase in scores for all three experience categories on the post-testing. Table 11 indicates that these increases were significant at $p < .05$ for the groups with less than two years and more than five years experience. The sharpest increase was posted by the group with the most experience, while the least experienced officers had the lowest post-test scores. There were no significant inter-group differences on the pre-administration. On the post-testing, the mean scores of officers with more than two years experience were significantly higher than the scores posted by the least experienced group, at $p < .05$.

Table 11. Pre-post mean comparison of Social Sensitivity Ratio by factor of Experience.

	n	pre	post	t-value	p (Tukey $\mathcal{M}$ = 3)
0-2 years	6	.32	.45	4.15	.05
2.1 - 5 years	6	.45	.56	1.70	n.s.
5.1 + years	7	.30	.58	3.05	.05
Total	19	.35	.53	4.23	.01*

* Tukey: $\mathcal{M}$ = 5.

Exposure. All four groups showed an increase in post-test scores, as is shown in Figure 2(e) (p. 90). Table 12 shows that the only change to reach significance ($p < .05$) was composed of officers completing 4-9 Dispute Forms. Panelists and officers completing three Forms or less showed a trend at $p < .10$. The group completing 4-9 Forms scored lowest on the post-administration.

Table 12. Pre-post mean comparison of Social Sensitivity Ratio by factor of Exposure.

	n	pre	post	t-value	p (Tukey $\mathcal{M}$ = 4)
0-3 Forms	6	.42	.53	2.27	.10
4-9 Forms	5	.27	.40	4.30	.05
10 + Forms	3	.47	.66	1.66	n.s.
Panelists	5	.27	.59	2.59	.10
Total	19	.35	.53	4.23	.01*

* Tukey: $\mathcal{M}$ = 5.

Open-ended: Total. This measure, used in the computation of the SSR, is the mean score of the total number of thought units expressed by each officer in response to two open-ended questions. A pre-post comparison of mean scores show a mean of 4.37 increasing to 5.42 on post-testing. This change is significant at $p < .05$.

Experience. Figure 3 (p. 91) shows all three experience groups increasing on the post-administration. Despite the change in the predicted direction across all groups, correlated t testing showed no significant differences in any individual group, as is indicated in Table 13. No real pattern of differences among groups is apparent.

Table 13. Pre-post mean comparison of Open-ended: Total by factor of Experience.

	n	pre	post	t-value	p (Tukey $\mathcal{K}$ = 3)
0-2 years	6	4.83	5.50	1.20	n.s.
2.1 - 5 years	6	4.50	5.50	1.17	n.s.
5.1 + years	7	3.86	5.28	1.37	n.s.
Total	19	4.37	5.42	2.19	.05*

* Without Tukey's Correction for Chance Formula.

Exposure. Figure 4 shows all four exposure groups increasing the number of total expressed thoughts on the post-administration, with the men completing ten or more Dispute Forms exhibiting the most apparent increase. Table 14 indicates that the change posted by the latter group approached significance at $p < .10$; no other pre-post changes reached statistical significance.

Table 14. Pre-post mean comparison of Open-ended: Total by factor of Exposure.

	n	pre	post	t-value	p (Tukey $\mathcal{K}$ = 4)
0-3 Forms	6	4.67	5.17	.70	n.s.
4-9 Forms	5	4.80	5.20	.46	n.s.
10 + Forms	3	4.00	6.67	4.00	.10
Panelists	5	3.80	5.20	1.09	n.s.
Total	19	4.37	5.42	2.19	.05*

* Without Tukey's Correction for Chance Formula.

Open-ended: Social Sensitivity. This measure consists of the mean score for each officer of the number of thought units judged to be related to an awareness of emotional states of others, as described above. This measure divided by 'Open-ended: Total' produces the Social Sensitivity Ratio (SSR). A pre-post comparison of mean scores for the total treatment population shows an increase from 1.63 'socially sensitive' thought units to 2.84. This change is significant at $p < .01$.

Experience. All three experience groups improved on the post-administration, shown in Figure 5 (p.92). The difference was significant at $p < .01$ for the group of officers with two years experience or less; $p < .05$ for the group with more than five years experience; and a trend at $p < .10$ for the intermediate group, as is indicated in Table 15.

Table 15. Pre-post mean comparison of Open-ended: Social Sensitivity by factor of Experience.

	n	pre	post	t-value	p (Tukey $\mathcal{M} = 3$)
0-2 years	6	1.67	2.50	5.00	.01
2.1 - 5 years	6	2.00	3.00	2.24	.10
5.1 + years	7	1.29	3.00	2.52	.05
Total	19	1.63	2.84	4.15	.01*

* Without Tukey's Correction for Chance Formula.

Exposure. As is shown in Figure 6, all four groups improved on the post-testing, most apparently the groups with the greatest 'exposure', e.g., Panelists and officers completing ten Forms or more. The statistical analysis (see Table 16) indicates that only the group completing the fewest Forms reached an acceptable level of probability ($p < .05$); the groups of 4-9 Forms and 10 + Forms displayed a trend at $p < .10$, while the difference displayed by the Panelists was statistically insignificant.

Table 16. Pre-post mean comparison of Open-ended: Social Sensitivity by factor of Exposure.

	n	pre	post	t-value	p (Tukey $\mathcal{H} = 4$)
0-3 Forms	6	2.00	2.67	3.16	.05
4-9 Forms	5	1.40	2.00	2.45	.10
10 + Forms	3	2.00	4.33	3.50	.10
Panelists	5	1.20	3.00	2.09	n.s.
Total	19	1.63	2.84	4.15	.01*

* Without Tukey's Correction for Chance Formula.

The next section will attempt to consider the results presented here, and integrate them into a useful framework so that appropriate and constructive conclusions may be drawn.

Figures 1(a) through 1(d)

Pre-post Mean Comparison

By Experience Groups

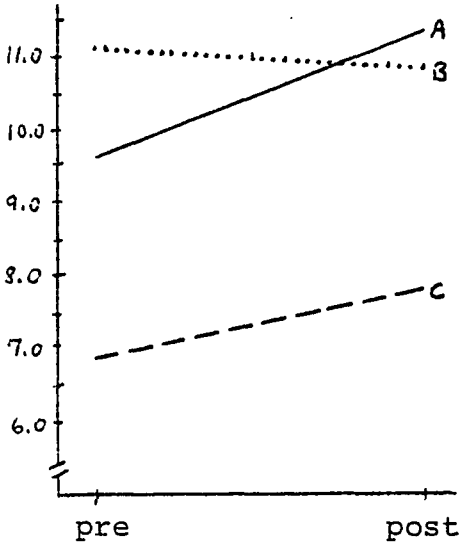


Fig. 1(a)
Missing Cartoons

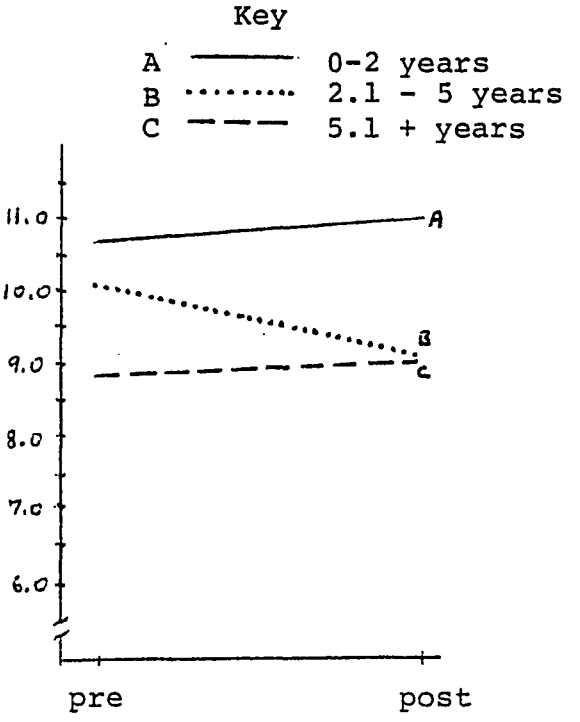


Fig. 1(b)
Expression Grouping

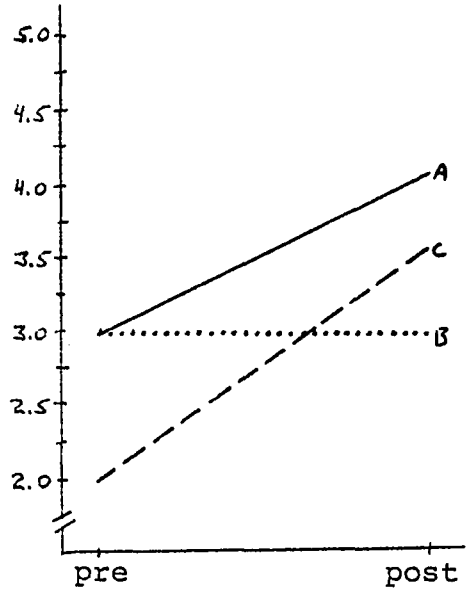


Fig. 1(c)
Videotape Forms

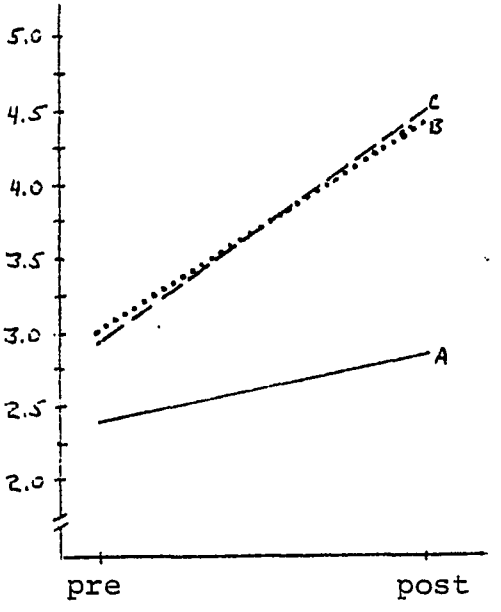
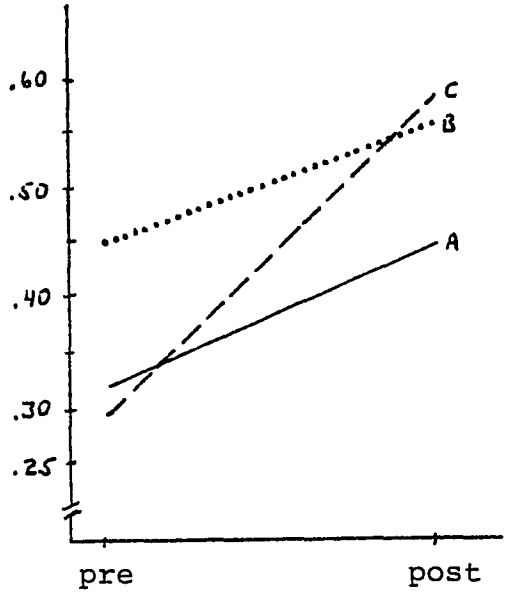


Fig. 1(d)
Dispute Forms

Figure 1(e)

Pre-post Mean Comparison

By Experience Groups



Social Sensitivity Ratio

Key

A ——— 0-2 years
B ..... 2.1 - 5 years
C — — — 5.1 + years

Figures 2(a) through 2(d)

Pre-post Mean Comparison

By Exposure Groups

Key

A ——— 0-3 Forms
B ..... 4-9 Forms
C — — — — 10 + Forms
D ··—··—·· Panelists

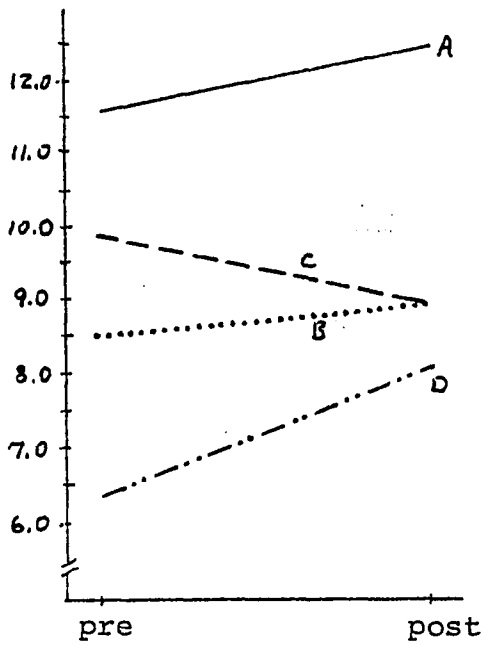


Fig. 2(a)
Missing Cartoons

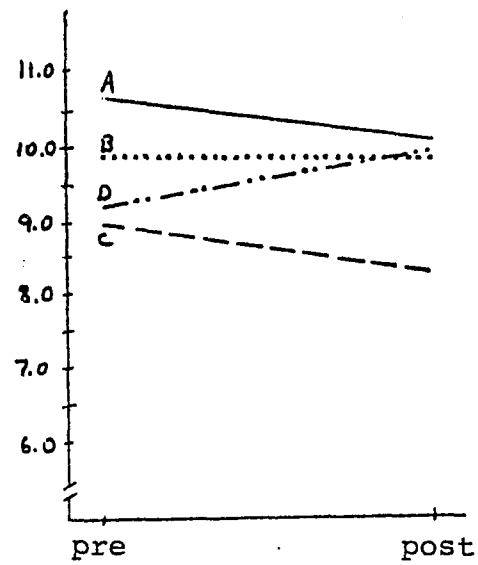


Fig. 2(b)
Expression Grouping

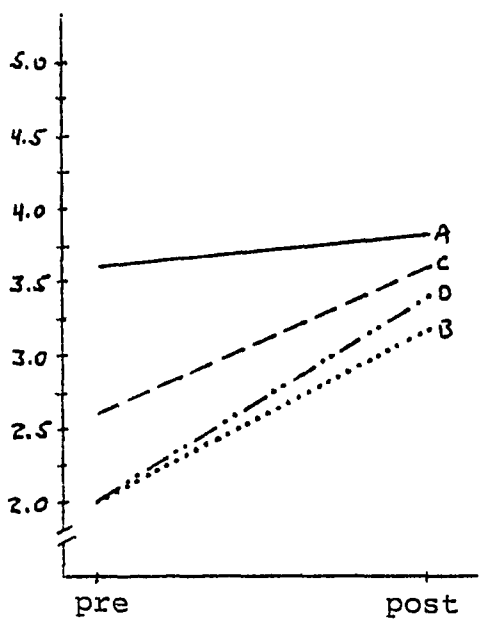


Fig. 2(c)
Videotape Forms

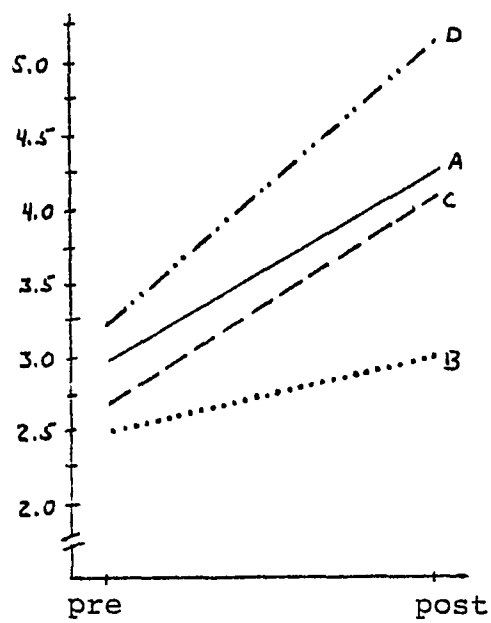
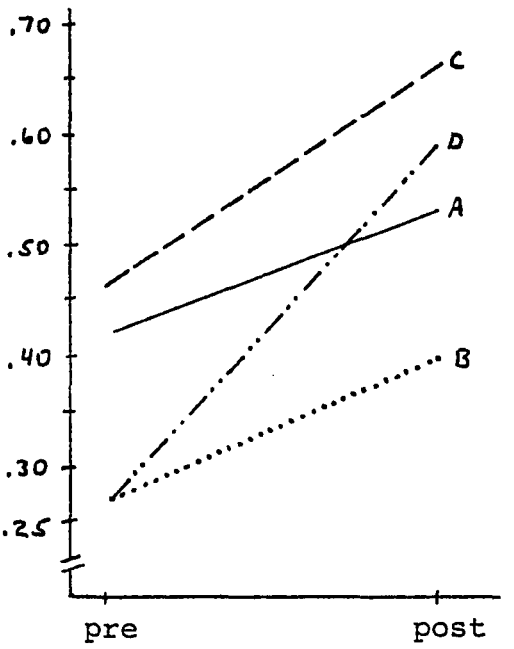


Fig. 2(d)
Dispute Forms

Figure 2(e)

Pre-post Mean Comparison

By Exposure Groups



Social Sensitivity Ratio

Key

A ——— 0-3 Forms

B ····· 4-9 Forms

C — — — — 10 + Forms

D ··—··—··— Panelists

Open-Ended: Total

Figure 3

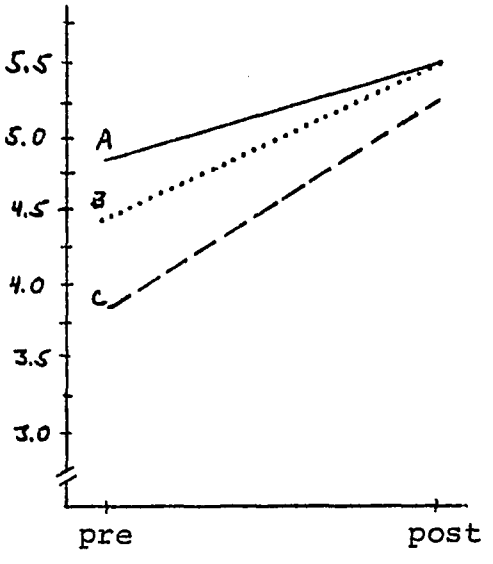
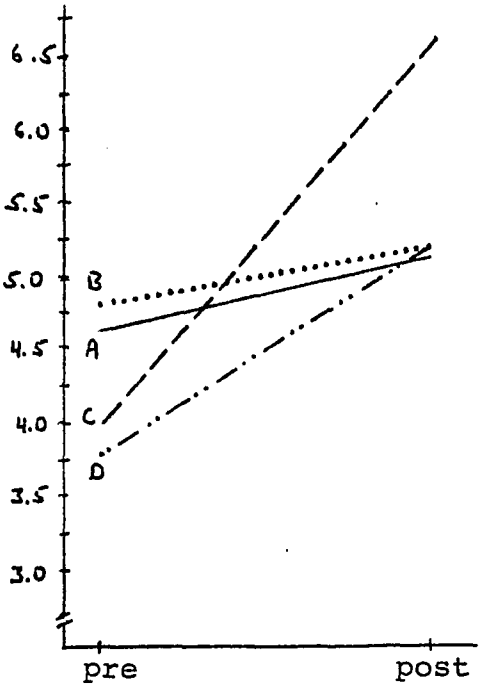


Figure 4



Pre-post Mean Comparison

By Experience Groups

Key

A ———— 2-2 years
B ..... 2.1-5 years
C — — — — — 5.1 + years

By Exposure Groups

Key

A _____ 0-3 Forms
B ..... 4-9 Forms
C — — — — — 10 + Forms
D ··—··—··— Panelists

Open-Ended: Social Sensitivity

Figure 5

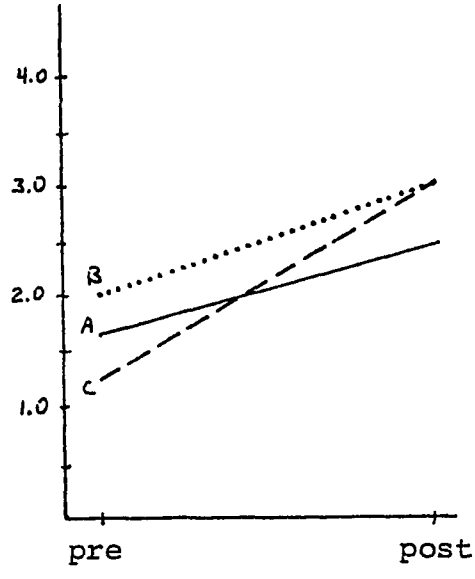
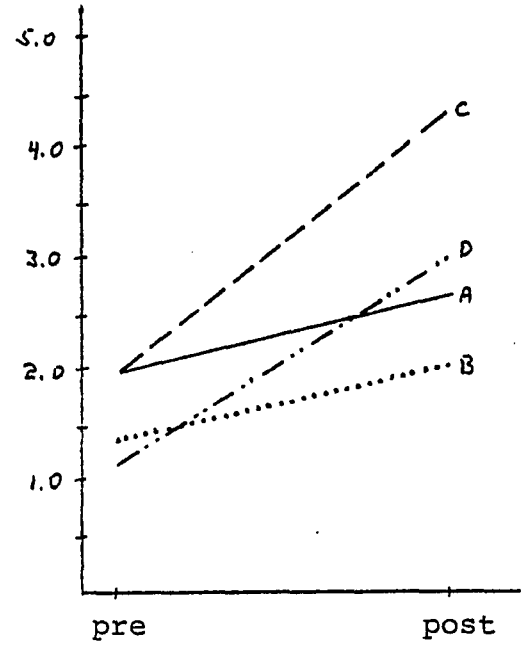


Figure 6



Pre-post Mean Comparison

By Experience Groups

Key

A ———— 0-2 years
B ..... 2.1-5 years
C — — — — 5.1 + years

By Exposure Groups

Key

A ———— 0-3 Forms
B ..... 4-9 Forms
C — — — — 10 + Forms
D ··—··—·· Panelists

DISCUSSION

For heuristic purposes, the interpretation of the results that were presented in the preceding section will be organized in a format similar to the original hypotheses (pp. 49-50); that is, the discussion will briefly summarize the results for the total treatment population and then consider the separate factors of Experience and Exposure.

Total population.

Three of the five basic measures reached statistical significance, while another showed a strong trend at $p < .10$ when subjected to the rigor of a test to compensate for the testing of more than two means. The fifth measure showed no change. It would therefore appear that the global results support the principal hypothesis concerning the effectiveness of completing Dispute Forms in producing greater social sensitivity.

A better gauge of the effectiveness of the learning approach under discussion will involve a comparison of the various sub-groups that were organized within the factors of Experience and Exposure. Such comparisons will have the advantage of utilizing two points of reference: pre-post change within each sub-group and inter-group change. This method of inter-group comparison becomes especially useful when inter-group pre-testing levels are comparable but post-testing scores differ significantly between groups. Examples of this approach will be discussed more fully below.

Experience.

Hypotheses 1(b) and 2(b) predicted that officers would increase their sensitivity to emotional states of others in an inverse relationship to their experience in the police department. This was based on the supposition that the more experienced officers have each developed established methods of performing their job, and are therefore less open to information that may cause them to alter their previously learned methods of functioning. Less experienced officers should be less confident in their job functioning and more eager for possible constructive information.

A cursory look at the results fails to clearly support the stated hypothesis; on several measures the least experienced officers appear to have improved the most and outperformed their more experienced colleagues, while on two other measures the reverse occurred. Close examination, however, shows some pattern in these differences and a possible relationship with the measures themselves.

Reversal pattern. Figures 1(a) - 1(e) indicate that the group of officers with less than two years experience outperformed the more experienced officers, especially on the post-testing, for the measures of Missing Cartoons, Expression Grouping and Videotape Forms. The group with more than five years experience scored far better on the post-administration of Dispute Forms and Social Sensitivity Ratio (SSR). The intermediate group of 2.1 - 5 years was most frequently comparable to the 5.1 + years group, particularly during post-testing.

Nature of measures. Given this dramatic pattern of reversal it is logical to investigate the measures themselves for similarities and differences. Such a comparison shows that Missing Cartoons, Expression Grouping and Videotape Forms are most clearly 'classroom exercises' in which the respondent is informed of the nature of the information requested.

The evaluative aspects of Missing Cartoons and Expression Grouping (O'Sullivan and Guilford, 1966) are apparent in the directions for each task, e.g., "choose the right picture...", "choose the expression that belongs...". In Videotape Forms respondents were asked to judge which emotions were present and in what intensities, knowing that their colleagues were judging the same videotape and that their responses would undoubtedly be compared.

The Dispute Forms, on the other hand, was completely removed from the classroom situation of the orientation period and the pre and post-testing. In the minds of the officers, the checklist of emotions (see Appendix A) was merely one of 20 items that were completed for each conflict under study in order to provide data. Any fear of evaluation would have been related to the officer's handling of the conflict and unrelated to his recognition of the emotional states of the conflicting parties, measured in item #11.

The SSR, although administered in the testing situation, was non-directive. Officers were given no indication concerning the type of information sought. As discussed in the Method section, it is logical to assume that respondents' attempts to

improve performance on this measure would involve an increase in the verbosity of responses, rather than a focus on emotional states. An increase in number of responses or their length would not affect SSR scores which are ratios and not absolute values. Hence this measure is perhaps a truer glimpse of how officers viewed the taped conflict than would otherwise have been obtained by more direct means.

It may therefore be inferred that the least experienced group of officers who outperformed the others on the measures of Missing Cartoons, Expression Grouping and Videotape Forms were eager to learn and/or please the researchers and supervisors. They were, in fact, the most successful learners when told what to look for. This 'classroom' learning, however, does not seem to have been well-integrated into less structured situations in which the measures reflect how the officers perceived total situations or 'real life' conflicts.

It was in these contexts that the pattern was reversed and the two groups with the most experience scored significantly higher on the post-testing than their less experienced colleagues at $p < .05$ on both the Dispute Forms and Social Sensitivity Ratio. The lack of any significant intergroup differences on the pre-administration underscores the significance of the improvement for the experienced officers. In other words all three experience groups were comparable at the outset of the study and improved through the treatment period. But those officers on the force for more than two years scored significantly higher than officers with less experience by the end of the treatment period.

Sensitivity integration as related to experience. Interpreting these results in light of the measures themselves, it appears that the improvement by experienced officers on the SSR and Dispute Forms during the treatment period may be attributed to the reawakening and utilization of knowledge accumulated over the years. More importantly, this knowledge appears to have been assimilated by the officers into their job functioning; their sensitivity to the emotional states of others may have been incorporated into the officers' perception of the world, as is most clearly seen in the Social Sensitivity Ratio.

Thus it may be hypothesized that experienced officers possess broad backgrounds of 'raw' experience that have not been systematized, i.e., labeled. Since this richness of experience has not been labeled or put into a framework, there is little tendency to generalize or discriminate across situations.

Identification and labeling of emotions in certain conflict situations allows officers to incorporate this knowledge into their phenomenological field in such a way that they not only form a structure or 'gestalt', but can communicate and teach from this body of knowledge brought together into a theoretical framework for the first time. This structured knowledge of emotional states becomes another tool in their daily functioning--not as a distinctive technique, but as a collection of salient and useful factors in their perception of situations.

Artificial vs. natural: Videotape Forms vs. Dispute Forms. The pattern of less experienced officers performing better in

the 'classroom' and the more experienced officers showing superior performance in job-integration measures is perhaps most clearly displayed by a comparison of the Videotape Forms and Dispute Forms measurements. Both measures are identical in form and content; the distinction between the two lies solely in the context in which they were completed. The Videotape Forms were administered during the orientation/ training sessions in a 'classroom' at headquarters, while the Dispute Forms were completed by officers 'in the field' following each conflict intervention.

Thus a comparison of the two measures has the benefit of holding constant most factors related to the measure itself so that the influence of 'setting' may be evaluated, affording an opportunity to see the ways in which the differences between 'artificial' and 'naturalistic' data may manifest themselves (Kerlinger, 1964; Campbell and Stanley, 1963). As may be seen in Figure 1(c) (p. 87) for the Videotape Forms measure, both the least-experienced and most-experienced groups improved in the predicted direction. The 0-2 years group began and remained with markedly higher scores although this inter-group difference did not reach significance. The intermediate group of 2.1 - 5 years remained constant, starting at a level comparable to the group with less experience and post-testing slightly below the most experienced group. Thus the pattern of performance on this classroom-administered measure is consistent with the hypothesis that least-experienced officers demonstrate both greater improve-

ment and performance in clearly-defined situations when they are told where to focus their attention.

Examination of the Dispute Form measure demonstrates the reverse pattern, as shown in Figure 1(d). The least-experienced group of 0-2 years posted the lowest average scores during both the early and late periods of the study. Moreover, this group showed the least improvement. The groups with more experience began at a comparable but slightly higher level; there was no significant inter-group differences during this initial treatment period. By the last of the three treatment periods the more experienced groups had each improved significantly (see Table 9, p. 80) and their average scores were significantly higher than the group with 0-2 years of experience, at $p < .05$. This pattern of similar initial scores but a significant difference in post-scores between most and least-experienced officers underscores the process of integrating a sensitivity of social awareness into job functioning by the experienced officers.

This analysis by experience groups for the Videotape Forms and Dispute Forms, identical except for the setting in which they were completed, serves to explain the hypothesis under discussion. Experienced officers began incorporating greater sensitivity to emotional states of others when perceiving, and interacting in, interpersonal situations. It may be postulated that the greater sensitivity demonstrated during the treatment period in which Dispute Forms were completed represents a process of reawakening hidden, experience-based knowledge.

Officers with less experience have no such wealth of professional experience to reawaken; hence it is not surprising that the factor of social sensitivity would not be integrated into their job functioning to the same extent as with the more experienced officers. With less experience to rely upon, it is also understandable that these officers with an "experience deficit" may be more eager to learn whatever clearly-defined tasks are presented to them when they feel it may enhance their job functioning.

Related factors. It should also be noted that the least-experienced officers generally have had more recent 'classroom' exposure, whether it be formal education or Police Academy training. This factor may be partially responsible for their superior performance in 'classroom' situations due to two related reasons. Firstly, their more recent experience in structured learning situations results in superior performance due to the 'recency effect' of learning theory (Underwood, 1966). Secondly, this recent experience may have provided a source of reinforcement for those recruits who did well and felt comfortable in the classroom atmosphere. The opportunity to compete in this setting with more experienced officers, who may normally be perceived as possessing greater confidence, could be a welcome change for less experienced officers who may often feel less confident in their job functioning.

Alternative explanations. There are, of course, other interpretations to explain these same data. For example, the better performance by experienced officers on the Dispute Forms measure may be due to modeling effects or social reinforcements

during the debriefing process. Perhaps more experienced men were better able to respond to supportive statements from research personnel and were thus more easily 'shaped'. As veterans they may have assumed more quickly that the inclusion of a checklist of emotions indicated that the presence of emotions was expected.

These alternative explanations should certainly be considered when interpreting these data or in the designing of future research. They are mentioned here without development because it is felt that they do not explain some of the results across measures or experience sub-groups as well as the interpretation presented above.

Summary. Reviewing the analysis for the factor of Experience, it was seen that the results do not support the hypotheses as they were originally stated. Closer inspection, however, revealed two clear patterns of performance; least experienced officers appeared to excel on the more traditional 'classroom' measures of social sensitivity while the more experienced groups proved superior on the less structured, job-related measures. Further experimentation will be necessary to test the generalizability of this dichotomous pattern of performance as related to experience and type of measurement.

These results were interpreted as indicating that officers with less than two years experience have not finished establishing a comfortable routine of handling their duties. They will therefore be highly motivated to receive whatever useful guidance is offered, hence their outstanding performance

on goal-directed measures. Their perception, however, is still largely unfocussed, resulting in a noticeably poorer ability to integrate 'classroom' knowledge into the complexity of real-life interpersonal conflicts.

Officers with more than two years experience undoubtedly lacked some of the motivation exhibited by their younger colleagues in the classroom; their techniques in job functioning have evolved over the years, and there is little inducement to change that could be provided by university teachers and students. This factor together with possible feelings of threat on traditional school tasks, may easily account for their poorer performance on the three 'classroom' measures. The process of self-teaching through exposure to Dispute Forms, however, was removed from the classroom situation and far less threatening. Under these circumstances the officers were open to reawakening their individual wealth of experience, thus assimilating the newly-found social sensitivity into their routine job functioning.

Specific recommendations for further research, especially in meeting the needs of less experienced officers, will be discussed towards the end of this section. Interpretation of the results for the factor of Exposure will now be considered.

Exposure.

Hypotheses 1(c) and 2(c) (see pp. 49-50) predicted that officers would display increased accuracy and a keener awareness of emotional states of others in direct proportion to

their involvement in the study. Involvement was measured by the number of Dispute Forms completed during the 3-month treatment period and whether an officer served on the Panel that identified conflict 'approaches'.

Panelist improvement. Inspection of the results for this factor of Exposure yields no apparent patterns or support for the original hypotheses. When focussing on the relative pre-post changes, however, one finding becomes clear--the Panelists consistently displayed the greatest improvement, as is shown in Table 17.

Regardless of the pre or post averages in relation to other Exposure sub-groups, the percentage change (post scores ÷ pre scores) for Panelists was greater than for all other groups on every measure. This is consistent with the prediction of Hypotheses 1(c) and 2(c), in that the sub-grouping of Panelists can be assumed to have had the most intensive and frequent exposure to the project through their regular hours of reviewing completed Dispute Forms with project personnel.

No other patterns were distinguishable in relating test performance to number of completed Dispute Forms. To determine if this apparent finding of most improvement by Panelists is confirmed by statistical analysis, a non-parametric analysis of variance was conducted. The data presented in Table 17 was converted into sub-group rankings for each measure; this conversion into ranks is displayed in Table 18.

A Friedman 2-way analysis of variance (Siegel, 1956) was utilized to determine the probability that the pattern of

rankings was produced by chance alone. It indicated that such a likelihood was less than .05, leading to the conclusion that there was indeed a significant pattern in these results. Table 18 implies that it was the consistent first ranking by the Panelists that provided the other-than-chance results.

Table 17. Relative improvement scores (post score ÷ pre score) for each measure by factor of Exposure.

	Miss Car	Express Grp	Vid Forms	Dis Forms	SSR
0-3 Forms	1.08	.94	1.04	1.42	1.26
4-9	1.08	.99	1.60	1.20	1.48
10 +	.91	.93	1.37	1.52	1.40
Panel	1.28	1.07	1.70	1.58	2.18

Table 18. Relative improvement rankings for each measure by factor of Exposure.

	Miss Car	Express Grp	Vid Forms	Dis Forms	SSR
0-3 Forms	2.5	3	4	3	4
4-9	2.5	2	2	4	2
10 +	4	4	3	2	3
Panel	1	1	1	1	1

To test this hypothesis another Friedman 2-way analysis of variance was run excluding the Panelist sub-group, adjusting all the ranks upward by one, e.g., ranks 2, 3 and 4 in Table 18 became 1, 2 and 3 respectively, with the exclusion of the first-ranked Panelists. The results of this non-parametric test

indicate that the rankings did not differ from chance distribution. Thus it may be concluded that it was only the Panelist sub-group's consistently greater relative improvement that conformed to the predictions of Hypotheses 1(c) and 2(c), while the results for the other three sub-groups yield no patterns consistent with, or contrary to, the hypotheses.

Validity factors. Considering these results and that only half the expected interpersonal conflicts occurred, certain other conclusions may tentatively be drawn. Specifically, the number of completed Dispute Forms was not a relevant measure of exposure to the study. This is due mainly to the limited dispersion of the completed Dispute Form frequency distribution which resulted from the paucity of appropriate conflicts, i.e., the difference in exposure time between completing 3 Forms or 9, for example, may be too minimal to result in any difference in 'involvement'.

Further minimizing the validity of this measure is the realization that the amount of time spent by the research project personnel with participating officers was not necessarily related to the number of Dispute Forms each completed, i.e., the number of debriefings in which he participated. It had been anticipated that almost all the time available to research personnel during this data-gathering period would be devoted to debriefing officers. In point of fact, despite the pressing schedules of the research assistants, more time was spent in informal interaction with officers than in formal debriefings. Even when the frequency of debriefings became greater, much time was spent with the officer "out front" at

the desk, with those officers at headquarters transporting prisoners or filing reports, and with officers transporting research assistants to different posts. It was only the group of Panelists that consistently received the greatest exposure to the project, thus supporting the assumptions underlying the original hypotheses.

Informal contact. During the earlier phases of the treatment period much time was spent with individual officers on their posts in informal interaction, walking beats and patrolling their sectors. This represented a concerted effort by research personnel to both get acquainted with all participating officers as well as have them get to know, and hopefully accept, the research assistants. This deliberate interaction is in apparent contrast to the original assumption that the degree of exposure would be measured by the number of interventions in interpersonal disputes that an officer happens to handle.

This contact, however, represented more than non-debriefing time that confounded the above assumption, for this period was later seen to be one of the most critical phases of the project; "beginnings are such delicate times" (Herbert, 1965, p. 286). It was then that officers' possible fears and questions toward the project were sought and often dealt with. It was then that both officers and research assistants began interacting with each other; assuming and shaping roles for which there was no prototype. It was then that attitudes toward the research assistants, two of whom were young women, and toward the

project in general were formed. It was then that trust was tentatively earned which led to mutual cooperation and eventual collaboration. It was then that the ultimate success of the study was given a chance to evolve. Most of the patterns of interaction for the remaining phases of the study had their beginnings during this early period of mutual acquaintance.

Debriefing roles. Once the debriefings became more frequent the roles of debriefer and debriefee gradually solidified, usually in ways consistent with the patterns established during the earlier phase of informal contact. This period of more structured time allocation consisted of less field work for research personnel, e.g., walking beats and patrolling with officers. The officers were usually called in specifically for debriefing purposes. They were seen individually by one debriefer in a vacant room at which time the Dispute Form was completed and the conflict discussed.

The greater structure of this arrangement generally resulted in officers perceiving the research assistants in a more professional role--that of debriefer. In this position the interaction focussed on defining the parameters of the conflict and the behaviors of both the parties involved as well as those of the intervening officers. Assuming the role of debriefer allowed each research assistant the opportunity to display a conceptual awareness of interpersonal interactions and, more importantly, an ability and readiness to receive the information provided by the officers without conveying judgments on their worth or performance. In other words, it allowed the research

personnel to put into practice what had previously just been described: the process of collaboration.

Some officers had expressed, either overtly or covertly, skepticism and uncertainty concerning the study and its administration throughout the initial period of informal interaction. As the debriefings got under way and became an accepted part of the 'routine', however, most of these officers grew more comfortable in the roles that evolved. For these officers in particular, threat was minimized when they saw that the debriefings involved no evaluation. Further, the actual debriefings did not require much informal conversation which undoubtedly had proven a little awkward, and perhaps threatening, for a couple officers. The atmosphere during the debriefings could be structured and polite, or very informal and loose, depending on the relationship between the individual officer and debriefer.

Summary. It may thus be seen that the information accumulated in an attempt to gauge the involvement of officers in the study had little relevance to the original intentions. As discussed earlier, the Hypotheses and methodology involved assumptions and expectations that were formulated prior to the actual data-gathering phase of the study. The discrepancy between the original expectations and the unanticipated data under discussion in the present analysis is an example of the difference between traditional laboratory experimentation and naturalistic, field research. In a carefully controlled study the factors that prohibit expected outcomes are viewed

primarily as "confounding variables" (Underwood, 1966) that are to be totally controlled such as by changing the instruments of measurement or by introducing standardized guidelines of interaction between project personnel and officers.

In a field study such as this the same factors that diminish the internal validity of an experimental variable often become major findings of the project (Campbell and Stanley, 1963). Such discoveries may shed light on a variety of crucial areas, as is seen above in the consideration of involvement in the study.

Officer attitude.

An important source of information that was not a major factor in the original experimental design may be provided by an examination of officers' attitudes toward the project in general and toward the research assistants in particular. After the first few informal contacts most of the officers began to display behavior toward the research assistants that could generally be categorized into either of two attitudes: respect or friendliness. The quality of interaction differed depending on the specific research assistant and officer involved, but generally an officer's over-all attitude was apparent regardless of with whom he happened to be interacting at the time.

Friendliness. It was found that 'friendly' interaction often hastened at least a superficial mutual acceptance; the initial barriers to communication were more readily surmounted.

This often provided a foundation from which deeper acceptance and respect grew. Such relationships overcame numerous, deep-rooted stereotypes and misconceptions held by both parties.

Specific obstacles to be overcome differed among officers and research assistants. Some of the more common problems included stereotypes about police, harbored by the research assistants: the expectation that all officers are non-intelligent, close-minded authoritarians who hate 'ivory tower' academics and its 'radical, rabble-rousing' students; the need to befriend officers, but without the opportunity of freely expressing themselves for fear of offending.

Among the officers were found several counter-productive attitudes as well: open scorn and jealousy of the formal education possessed by the younger research assistants; feelings of being threatened by the two female research assistants, and the necessity to flaunt their masculinity through sexual remarks, innuendo, etc.; the assumption that the research assistants were radical, anti-cop, do-gooders; perhaps most importantly, the suspicion of inexperienced book-learners telling them how to do their job (Bard, 1975).

Despite the advantages afforded by a 'friendly' atmosphere, true progress in achieving 'collaboration' was realized only when respect was present. The initially 'friendly' interactions with several officers provided an ideal foundation for the development of mutual respect and acceptance, upon which collaboration is based. With a couple officers, however, the friendliness remained superficial, with little communication

taking place throughout the study, and "in the absence of communication there can be no collaboration" (Ibid., p. 132).

Respect. Several officers, on the other hand, did not display an initial attitude of 'friendliness', but rather one of cautious politeness and respect. Continued interaction with these officers usually involved more awkwardness, periods of silence, and less spontaneous small-talk than in the more casual, 'friendly' contacts. In most cases, however, real information was gradually shared with these officers as interaction continued. This came about in spite of, or perhaps because of, the absence of anxiety-reducing small-talk; when conversation replaced the periods of silence, the subject matter was likely to be job-related. Less experienced officers were most likely to be found in this category of 'respect'. Such a finding is consistent with their possible lack of confidence and uncertainty to freely engage in casual conversation.

This evolution into a true collaborative relationship did not occur for every 'respectful' officer, just as several 'friendly' relationships remained superficial. For those parties who utilized the traits of respect and politeness solely as a means of avoiding being honest or open with themselves or with others, their purpose was realized; the facade was maintained and only basic, rather sterile, data was obtained.

Of the two initial postures of 'respect' and 'friendliness' both contained the potential of evolving into relationships conducive to collaboration. 'Friendliness' was both the most pleasant and easiest foundation from which to build, but it was

mutual respect which had to be established before real progress could be achieved.

Summary.

This study may be viewed as a "field experiment", defined by Kerlinger (1964, p. 382) as:

> a research study in a realistic situation in which one or more independent variables are manipulated by the experimenter under as carefully controlled conditions as the situation will permit...Where the laboratory experiment has a maximum of control, most field studies must operate with less control.

Conducting this research in the context of a functioning police department did place limitations on experimental control.

It was the setting and the process of conducting the research, however, that were themselves major goals of the study. The systematic study of the complex processes at work in 'real-life' settings has been all too rare despite its obvious importance to education and psychology (Ibid.). Both the research under discussion and the broader study of police intervention approaches in which it was incorporated represent attempts in this area.

An approach to learning. This field experiment attempted to introduce a method of learning which is commonly utilized in daily functioning on an unconscious level, but which is rarely employed as a recognized, formal method of instruction by educators or agents of social change.

The learning process tested in this study is based on the synthesis of predominant, i.e., selected, stimuli with relevant,

personal life experiences. It was hypothesized that the selection and labeling of specific emotions would sensitize the individual to these states when there is adequate exposure to both the labels and real-life displays of these emotions. Frequent interaction in situations in which such emotions are present provides a constant source of social feedback, resulting in a greater capacity to identify the emotional states of others. Police officers constitute an excellent milieu for the testing of this hypothesis since they are frequently called upon to intervene in interpersonal disputes in which emotional states are high.

Experience: Results and interpretation. The results lend support to this approach to learning, although inherent methodological limitations preclude the making of conclusive statements regarding the ultimate effectiveness of the treatment tested. Various intergroup comparisons, however, yielded findings that appear both interesting and supportive.

Specifically, it was seen that least-experienced officers exhibited a tendency to try to see more total data in specific situations, data they hope will provide useful information. They displayed a ready capacity to learn specific tasks when such tasks are clearly defined, as evidenced on the 'classroom' measures. Despite their eagerness to learn and their impressive group performance on structured tasks, least-experienced officers performed on a significantly poorer level than the more experienced officers on the post-administration of the job-related, less structured measures.

Performance on these measures, Social Sensitivity Ratio (SSR) and Dispute Forms, has been interpreted as being indicative of how interpersonal conflict situations are viewed. The SSR, in particular, reflects which types of factors each officer chooses to see and utilize when presented with a family conflict, with its full range of complex issues.

The two groups of officers with more experience performed in an almost opposite fashion to their less-experienced colleagues. 'Classroom' performance was noticeably below the level reached by least-experienced officers; perhaps motivation on these structured taks was low. Performance patterns were reversed on the SSR and Dispute Forms, the most-experienced officers scoring significantly higher on the post-administration while all groups were comparable on the pre-administration.

Performance patterns for these Experience groups were interpreted as showing more experienced officers not very interested in participating in classroom exercises, but having a ready capacity to teach themselves. Their dramatic improvement in the SSR and Dispute Forms measures demonstrates an increased sensitivity to the emotional states of others in their daily functioning.

Theoretical explanation. It is inferred that frequent exposure to labels of emotions and their intensities reawakens a wealth of experience that had largely gone unnoticed. An officer is constantly accumulating many data regarding behaviors, demographic facts, physical traits, etc., throughout his experience-rich career. Only a small percentage of these data is regarded as useful, and ultimately to be acted upon.

The rest remains dormant, ready to be recalled and synthesized when its relevance is realized. It is thought that frequent exposure to labels of emotional states allows the experienced officer to see the relevance of social sensitivity and to begin using his experience as a natural aspect of his functioning.

Less-experienced officers have accumulated too little data to integrate; their "experience deficit" results in a lack of information to reawaken. Mere exposure to labels of emotions may have less of an effect on these officers for at least two reasons: there is less information to call upon, and there is a weaker associative bond between the label and the experience due to the officers' decreased exposure to emotional states in their history as police officers. These findings underscore the most critical aspect of all learning techniques, that of extrapolating and generalizing an isolated piece of information into a fuller, more informative perception of the world around (Bigge, 1964).

Experience: Conclusions and recommendations. Despite pre-experimental predictions to the contrary, it is not surprising that the most successful display of integrating prior knowledge with job functioning in this study was demonstrated by the most experienced officers who were generally the least-motivated in the 'classroom' setting, for the 'learning' of emotional sensitivity can be acquired most readily through direct contact with people and a readiness to understand others. More traditional forms of instruction in this field are far less likely to be integrated into real-life situations.

Officers with less experience appear to need more explicit direction in terms of what to look for in conflict situations. Methods to enhance training for this group might involve the introduction of informal discussion sessions to consider the specific situations they have encountered and relate them to whatever concepts are under discussion, e.g., conflict approaches, emotions of others, etc. By meeting every two or three days in small groups, the information will be fresh and the atmosphere should be non-threatening in order to promote participation. This type of process is similar to the training in dealing with interpersonal disputes that was successfully provided in the context of a New York City housing projects study (Bard, Zacker and Rutter, 1972). In this manner less-experienced officers can benefit from both the approach of experiential self-teaching, the topic of this study, as well as supplemental guidance that will allow them to focus their attention into specific areas with greater self-assurance.

Exposure: Results and considerations. For the factor of Exposure the predicted case load of interpersonal conflicts did not materialize, thus minimizing the degree of exposure provided exclusively by Dispute Form completion as well as curtailing intra-group variance. These post-hoc considerations cast doubt on the validity of the approach of attempting to gauge personal involvement by the number of completed Forms.

The greater involvement predicted for the group of Panelists, however, was realized; hours of reviewing completed Dispute Forms were spent weekly by each Panelist in concert

with research personnel. This group consistently displayed the greatest improvement on each measure, achieving statistical significance. These results support Hypotheses 1(c) and 2(c), despite the lack of validity in relation to the other exposure groups which displayed no noticeable patterns of responding or support for the hypotheses.

Process of collaboration. Perhaps just as important was the richness of the experiential data that were uncovered by an analysis of the processes at work in this real-life setting. Such an analysis focussed on the quality of interaction among research staff and participating officers.

Further investigation into the evolution of roles assumed by officers and debriefers revealed that officers' initial attitudes could generally be viewed as either 'friendly' or 'respectful'. Friendly relationships often facilitated deeper feelings of mutual acceptance and respect in addition to the obvious advantage of producing fewer awkward moments and a more pleasant atmosphere. It was respect, however, that had to be achieved before actual collaboration could be realized.

Essential to achieving an active state of collaboration was the elimination of many fears and prejudices, both by research personnel and officers. Two informal phases that occurred early in the project are now seen to have been significant in this process: a) the first several weeks when research assistants patrolled beats with officers to befriend the men and learn about police work, and; b) the actual debriefing process in which officers experienced the absence of

evaluation and judgment-making by the research personnel, in an atmosphere of professionalism and eagerness to learn.

The present study may be viewed as providing data in several areas. In regard to the original hypothesis concerning self-teaching through simultaneous exposure to cognitive labels and relevant life experiences, the results are certainly supportive.

The data dealing with the influence of prior police experience on this type of learning was perhaps the most fascinating and useful; the analysis concluded that, as expected, the greater motivation of less experienced officers resulted in better performance on several measures, but these measures were quite task-oriented. Contrary to the original assumptions, the better performances on those measures that were related to actual job functioning were achieved by the more experienced officers who were evidently better able to integrate social sensitivity into social interaction. Less experienced officers may be aided in achieving such integration by the introduction of supplemental, semi-structured, group discussion.

The measure of project involvement, i.e., completed Dispute Forms, was based on assumptions that were not realized, with the exception of the group of Panelists. Their consistent pattern of greatest improvement supports the original hypotheses, while the lack of any clear patterns of performance for the other exposure groups was not unexpected. Analysis was then directed

into the areas of interaction patterns among officers and research personnel, role formation, and the factors underlying these processes. Further investigation showed the relationship of all the factors to the ultimate goal of collaboration. It is felt that this analysis presents relevant, useful, experience-rich data for future naturalistic research in social and organizational systems.

Reviewing the above results, it appears that each finding, whether directly related to the original hypotheses or an unanticipated by-product of the collaborative process, suggests either new areas of experimentation or procedures that may beneficially be incorporated in the study of complex, social systems in real-life situations. There were, of course, no definitive findings--rather, data that 'supports' or 'suggests'. For what is the true purpose of research if not to discover new starting points for further exploration?

APPENDIX A

Dispute Form

DISPUTE REPORT FORM

Incident Report # _____

Party #1

Date _____

Name _____

Time In _____

Address _____

Time Out _____

_____ Phone _____

Party #2

Name _____

Address _____

_____ Phone _____

Party #3

Name _____
(Officer)

Complainant (if not one of parties)

Name _____

Address _____

_____ Phone _____

---

1. Identifying Data: Complete for each party and for each party and for complainant if complainant is not one of parties involved.

	Party #1	Party #2	Complainant
a) Sex: Male			
Female			
b) Age (estimate)			
c) Race: White			
Black			
Other			
d) Class: Wealthy			
Average			
Poor			
e) Did not know parties			
Knew by "scuttle butt"			
Yes, prior contact			
f) No Alcohol			
Some but not intoxicated			
Intoxicated			

2. Number of People Involved

Patrolmen _____

Supervisors _____

Bystanders _____

a. Party #1's Side

Present _____

Absent _____

b. Party #2's Side

Present _____

Absent _____

c. Complainants

Present _____

Absent _____

3. Relationship of Parties #1 and #2

a) Related:

_____ married
_____ parent/child
_____ siblings
_____ living together
_____ other (specify)

b) Not Related:

_____ friends
_____ neighbors
_____ businessman/customer
_____ landlord/tenant
_____ strangers
_____ other (specify)

---

4. Location of Dispute

a) _____ outdoors
_____ indoors

b) _____ residence
_____ bar
_____ restaurant
_____ public facility
_____ street
_____ other (specify)

---

5. Nature of Conflict

On your arrival was there any allegation or other indication of:

	Party #1	Party #2
threat		
threat brandishing weapon		
physical assault		
physical assault with weapon		

---

6. When you arrived parties one and two were:

_____ one or both absent
_____ in a physical struggle
_____ arguing
_____ engaged in quiet discussion
_____ not talking to one another
_____ other (specify)

---

7. Who was being most aggressive?

_____ Party #1
_____ Party #2
_____ Both were
_____ Neither
_____ Someone else (specify)

---

8. What was the main thing the conflict was about? (Very briefly)

9. On your arrival what did the parties ask you to do?

	Party #1	Party #2
Force others to comply with own wishes		
Mediate a compromise		
Arrest the other party(ies)		
Nothing		
Leave		
Other (specify)		

---

10. On arrival to what extent did they cooperate with you?

	very cooperative	slightly cooperative	withdrawn, indifferent	slightly uncooperative	very uncooperative
Party #1					
Party #2					

---

11. The intensity of feelings shown were:

	none	just a little	some	much	very much
a) angry					
party #1					
party #2					
b) afraid					
party #1					
party #2					
c) ashamed					
party #1					
party #2					
d) suffering					
party #1					
party #2					

Process Guidelines

Remember certain things are important for understanding the intervention process.

12. How did you begin the intervention (what you said, how you used gestures, set up the situation, etc.?)

13. What were your goals?

14. What did you do to achieve your goals? (What role did you play? What techniques did you use? What was your style?)

15. What was the outcome?

16. How did you feel toward each of the parties? How do you think they feel towards you?

17. What did the parties think of your intervention?

	Made things much worse	Made things worse	Made no difference	Made things better	Made things much better
Party #1					
Party #2					
Complainant					

18. How likely is it that future intervention will be necessary?

Very unlikely	Slight chance	Maybe 50/50	Probably	Definitely

19. Wo what extent did you accomplish your goals?

Not at all	Slightly	Somewhat	Mostly	Completely

20. What other relevant information can you add?

APPENDIX B

Open-ended questionnaire

Code Number_____

Date_____

In your opinion, what are the important things that were taking place in this scene?

What was the likely outcome of the situation you just viewed?

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