THE GENERALIZATION OF UNDERSTANDING TO BEHAVIOUR: THE ROLE OF PERSPECTIVE IN ENLIGHTENMENT

by

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Abstract

The question addressed is the relationship between intellectual understanding of social processes and behaviour: Does intellectual understanding of social psychological principles change social behaviour? Gergen (1973) raised this question and answered in the affirmative. He posited an "enlightenment effect" as a result of sophistication as to psychological principles. The first study reported here subjects were exposed to an enlightenment effect experimental manipulation. Volunteers who demonstrated understanding of Milgram's (1963) behavioural study of obedience were subsequently asked to participate in an experiment that in fact embodied the same principles as Milgram's. The subjects, though they understood the reasons for the teachers' behaviour in Milgram's study, nonetheless behaved in a strikingly similar fashion, coercing a supposedly distressed person (actually a confederate) to continue an upsetting task for the sake of a scientific understanding. Subject's demonstrated scant ability to bring their prior intellectual grasp of the dynamics of obedience and compliance to bear on their current situation or to even consider that it might be appropriate to do so.

Two more studies explored the reasons for this failure of an enlightenment effect. In the second study observers watched a video-taped simulation of the first study. Observers in one condition believed that they were watching a tape of real events as they had occurred to the people involved. Observers in the other condition were told that they were watching actors role-play a hypothetical situation. This manipulation produced differential arousal and significant difference in observers' ability to comprehend that the subjects in the first study were engaging in behaviours parallel to those of the teachers.

A third study investigated the hypothesis that cognitive attention is captured by situational meanings that are made salient. This study brings together two lines of reasoning. Taylor & Fiske's (1975; 1978) focus-of-attention effect and the frame-of-reference work of Eiser (1971), Alexander (1970) and Schutz (1970). Observers were again placed in
one of two conditions. In one observers were sensitized to the possibility of multiple meanings in a situation and given what Goffman (1972) has called the dramaturgical standpoint. From this perspective they read about and viewed the video-tape of the first experiment. Observers in the other condition were given a perspective and task that directed their attention to minute behavioural details of the same. The hypothesis was that observers in the multiple perspective condition would be able to take into account many more levels of meaning and therefore be able to view the first experiment from the point of view of the investigator. The dependent variable was the ability to surmise the experimental hypothesis of the first experiment. It was hypothesized that subjects in the other condition would have their attention so riveted on details of the experiment that they would not be able to easily re-orient to the more global analysis required. Both of these hypotheses were corroborated.

The conclusion from these studies is that an enlightenment effect is a cognitive accomplishment whose achievement depends upon a frame of reference that is defined by the question "what's going on here". Whether or not individuals will bring their intellectual understanding to bear on their behaviour depends on the perceived salience, and availability, of that understanding at the time of the behaviour. Many situational aspects conspire to make an enlightenment effect a difficult task.
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We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And to know the place for the first time.

These lines from Eliot’s Little Gidding express a philosophy of both personal knowledge and collective history that is paradoxically both congruent with and divergent from many classical pronouncements on society vis a vis history. They are congruent with those cyclical views of history that proclaim a great immutability in human affairs: Our unceasing reliving of our history because of our inability or unwillingness to learn from our past. Voltaire (in Tuchman, 1978, p. XIV), the cynic in the wake of the Enlightenment, put it thus: "History never repeats itself, man always does".

Barbara Tuchman (1978), points out that Thucydides made this principle the justification of his work (p. XIV). Hegel (1837), though he believed in the progress of Spirit, concluded that while there were men who had insight and moved history (or rather Spirit moved through them), most men were victims. Hartman (1953), the student of Hegel, has described the common man, victim, as "in a way, guilty of his own death and suffering because he does not rise to the occasion, the human possibilities of seeing the wholeness of the historical situation" (p. XXXVII).

Kant (1784) likewise found mankind recalcitrant in its ability to learn from its past and exhorted his
contemporaries with Sapere Aude! (Have courage to use your reason) (p.3). Only courage would help man attain enlightenment, the release from a self-imposed blindness ("tutelage" was the exact word Hegel used). But Kant was more optimistic than Voltaire, with his amused cynicism, or Hegel, with his belief in an inexorable Spirit that used heroes and victims alike as pawns in a grand scheme. Kant believed that with freedom, particularly freedom from that tutelage imposed upon the intellectually lazy by the intellectually avaricious, men could achieve enlightenment.

In our own times Kenneth Clark (1969) has expressed the belief that despite "the recent triumphs of science, men haven't changed much in the last two thousand years" and "in consequence we must still try to learn from history". Barbara Tuchman (1978) considers the 14th century to have been much like our own, that is to say, calamitous, and quotes Dryden that "mankind is ever the same and nothing is lost out of nature, though everthing is altered." Collinwood (1972) a dissident voice of optimism, declares the argument that historical self-understanding is impossible to be an "open sophistry";

Actually, the argument is a counsel of despair, based on recognizing that a certain attempted method of studying the mind has broken down, and on failure to envisage the possibility of any other. (p.205)

But not only historians disagree about the extent
and consequences of "enlightenment." The status of social psychology as a science has been the topic of an energetic debate (Gergen, 1973, 1976; Schlenker, 1974, 1976; Elms, 1975; Manis, 1975; Hendrick, 1976; Harris, 1976) in part conceptually centered on the very issue of individuals' ability to learn from history and therefore not repeat it.

One very influential and controversial paper (Gergen, 1973) has argued that the methods and data of social psychology do not meet the criteria defining a science. Gergen maintains that within a true science "broad generalizations can be established with a high degree of confidence, explanations can be empirically tested, and mathematical transformations can be fruitfully developed" because the events studied are stable over time (p.309). Social psychology, by contrast, must deal with "facts that are largely nonrepeatable and which fluctuate markedly over time" (p.310). This changing world of social facts precludes a "transhistorically valid" science.

Schlenker (1974), Manis (1975) and Harris (1976) have responded with the claim that Gergen's conception of the natural sciences is limited and that the logical status of the problems in the natural and social sciences are equivalent. While the debate on this issue can be expected to appropriately continue on purely philosophical grounds, Gergen has raised one issue which everyone, including Gergen (1976) has agreed is an empirical question: to what extent does the dissemination of
knowledge change the behaviour it describes?

The transitory nature of social facts has been in part attributed by Gergen to the effects of a "protracted communications system" (p.310) in which the social psychologist is engaged with the rest of society. By means of education, magazines, newspapers, and the mass media, the theories and research findings of social psychology are communicated to the society at large. Emerging from this feedback loop are individuals who are increasingly knowledgeable with respect to current social psychological thinking. Such individuals are likely, in Gergen's view, to undergo behavioural change as the result of two factors: (a) exposure to the "prescriptive bias" of social psychological theory, and (b) experiencing an "enlightenment effect".

The prescriptive bias of social psychological theory refers to the norms of proper or desirable behaviour implied in theories of such phenomena as conformity, authoritarianism, obedience, persuasibility, etc. Gergen believes that communication of these norms through dissemination of the theories tends to "propagandize the unwitting recipients" (p.312) of this knowledge into behaving in accordance with the implied norm. Over time acquiescence changes the frequency of previously established behaviours.

The phenomenon of an "enlightenment effect", as defined by Gergen, is the recognition by individuals that
they are fulfilling a role, performing an act, or behaving in a situation that is identical to those previously investigated by behavioural scientists. When persons recognize this connection, their behaviour is affected because "sophistication as to psychological principles liberates one from their behavioural implications" (p.313). Accordingly, understanding of the dynamics of behaviour may increase alternatives to action by sensitizing the individuals to influences acting on them and by making salient features of the environment which hitherto passed unnoticed (p.313). Thus, for example, Gergen asserts that individuals who are aware of the research on the reasons why people do not help in emergencies will recognize and therefore act in opposition to the situational characteristics that have been reported to govern the behaviour of bystanders (Latane & Darley, 1970). Likewise, knowledge that arousal can affect one's interpretation of events may give rise to caution when arousal is known to be high. Overall, "knowledge increases alternatives to action and previous patterns of behaviour are modified or dissolved" (p.313).

Several provocative questions are raised by Gergen's arguments: (a) what effects do communicated norms have on established behaviour; (b) to what extent do individuals undergo behavioural liberation as a consequence of understanding behavioural dynamics; and (c) if either of these
phenomena is prevalent, what are the logical implications for the status of social psychology as a science? To this last question Schlenker (1974) has countered that "any nonisolated or open system is subject to the intrusion of unforeseen events which serve to disconfirm specific predictions without serving to invalidate the theories from which the predictions are derived (p.6). Hence, the effects of public awareness of social psychological theory and research are examples of the kinds of perturbations possible within any open system. Harris (1976) has pointed out that many applied and theoretical branches of the natural sciences must contend with perturbations as frequent problems. Heisenberg elaborated a principle specifying the probabilistic nature of observer-particle interactions.

Leaving the philosophical questions aside, the most damaging criticism of Gergen's analysis comes from Schlenker's (1974) commentary. Schlenker points out that social psychology is not now nor has it ever been primarily interested in cataloguing social facts. The content of norms is not the interesting social psychological fact; it is the process of norm internalization and socialization that represents the proper object of study. If people change behaviour in response to the prescriptive bias of a theory that is yet another example of the general domain of social influence.
But the challenging question remains: does the communication of social psychological theory and research change expected behaviour? What about the analogous process of insight in therapy? Clinical psychology has been strangely mute on this question. There exists no body of research literature on the topic, though clinicians usually have an idea of the place of insight in therapy.

Schlenker (1974) wonders, in terms of enlightenment effects, if social psychologists, by virtue of their specialized knowledge are different from other less "enlightened" individuals in their social behaviour. His conclusion is that they are not. While this conclusion seems justified on the basis of the everyday experience of any academic psychologist, the argument that knowledge brings change remains seductive. At the basis of all attempts at social change and the enormous expenditures for education is the belief that "the truth shall set you free". While the nature of "truth" is moot, the sentiment expresses a conviction that has been basic to the formation of democratic societies for the last two hundred years, i.e., that mankind, freed of the distorted thinking conditioned by exposure to authoritarian institutions and beliefs, would continue "its onward march, albeit with tardy steps, toward an ever-nearing perfection" (Turgot, 1750). Philosophers of the period from which Gergen
derives his effect, the Enlightenment, ardently believed that "education can change everything" (Helvetius, 1774). As the historian Durant has noted, the sustaining dogma of the Enlightenment was "the belief in the infinite possibilities of progress through the improvement and extension of education" (1963, p.715).

Unbounded faith in the amelioration of mankind's condition through education may have suffered some setbacks from the time of the Philosophes to our own, yet many of us persist in a naive belief in an enlightenment effect as demonstrated by our surprise that, for example, psychiatrists have an unusually high suicide and divorce rate, that many physicians are overweight and smoke cigarettes, or that a social psychologist may feel uncomfortable and shy in social situations. The surprise presupposes a "they should know better" assumption that doesn't seem entirely unjustified. After all, if these individuals cannot bring their professional expertise to bear on their own relevant life problems, how are the rest of us to cope? Further, most of us can probably remember an event in our own lives, or that of someone we know, in which understanding did lead to an important change in the way of doing things. Gergen has raised an intriguing question for social psychology to address.

Review of Relevant Literature

Although interest in the effects of communications on behaviour has existed in the social psychological
literature, the experimental designs have not been directed toward a specific or in depth study of the hypothetical enlightenment effect. A review of some of these studies is pertinent and, please excuse, enlightening. Inspired by the Parable of the Good Samaritan, Darley and Batson (1973) performed a bystander intervention study in an attempt to isolate the personality and situational variables relevant to helping. Subjects were Princeton Union Theological seminarians who had either read the parable or had read another paragraph concerning vocational preferences of seminarians. On their way to give a talk on whichever message they had read and under the pressure of either a high, moderate, or low hurry condition, the seminarians had to pass by a person (confederate) slumped in a doorway and coughing. Suspecting that the reading of the parable would increase the salience of norms for helping, Darley and Batson had predicted an overall main effect for helping in the parable condition. A second hypothesis predicted decreased helping as a function of increased pressure to hurry. While this latter hypothesis was supported, the message variable did not produce significant differences in helping. Since a theological interpretation of the parable is that the priest and Levite who pass the victim were probably hurrying to some official religious function as dictated by their roles, Darley and Batson found it
ironic that "(a seminarian) is likely to keep going even if he is hurrying to speak on the parable of the Good Samaritan, thus inadvertently confirming the point of the parable" (p.107). Indeed several seminarians, hurrying to give their talk on the parable stepped over the confederate's body in their rush. Thus, even with the norm for helping made extremely salient, the seminarians were quite susceptible to the situational pressure to hurry to complete their appointed tasks.

Greenwald (1975) has re-analyzed Darley and Batson's data and concludes that there might have been a slightly significant difference between the two message conditions. While this may be so, it is still surprisingly counter-intuitive, from a perspective of 'enlightenment' that so few seminarians acknowledged the "victim", much less offered help.

Darley and Batson point out that it would be inaccurate to strongly characterize the seminarians as "consciously noting (the confederate's) distress, and consciously choosing to leave him in his distress" (p.107). Rather the situational pressure seemed to narrow the "cognitive map" (Tolman, 1948) so that the information "person in distress" was not processed and the concomitant question of an ethical issue was not pertinent (though for some subjects the ethical issue apparently did have some relevance as they seemed anxious and aroused (p.108).
Conflict rather than callousness, as the investigators point out, seems the appropriate explanation for why these seminarians did not help. Their first commitment had been to help the experimenter; stopping to help the confederate would mean, in the high hurry condition, that they would disrupt the task they had been assigned. People who are in a hurry are rushing "because somebody depends on their being somewhere" (p.108).

A study that attempted to directly manipulate attitude change with "enlightenment" was Katz, McClintock, and Sarnoff's (1959) research on prejudice. Again, the primary concern of the investigators was not with enlightenment, per se, but with the effects of "insight" about the psychodynamics of prejudice on prejudiced subjects who were either high, moderate, or low in ego-defensiveness. A comparable group was given a message that explained prejudice in terms of cultural influences.

Insight was found to reduce the expression of prejudice on a questionnaire more effectively than the cultural influences message, but only for those individuals who were moderately ego-defensive. The others were not affected, though presumably for different reasons. Those who were high in ego-defensiveness were seen as resisting insight while those who were low ego-defensive presumably did not have a motivational basis to their prejudice. While the insight message had some success, its efficacy
was clearly related to the motivational state of the individual in this study. Thus, the information in the message was in competition with other information, or schemas (Tessor, 1978), that the individual carried into the situation.

In another study (West, Gunn, and Chernicky, 1975) criminology students were asked to participate in the burglary of an advertising firm; the request for participation came from a person known to the subjects as a local private investigator and was worded to fit one of four conditions. In two of the conditions the subjects were told that the U.S. Internal Revenue Service (IRS) needed to get microfilms of the records of an advertising agency that was suspected of defrauding the IRS of a large amount of money. Subjects in one of these conditions were offered complete immunity if caught; in the other they were explicitly told that they would receive no immunity if caught. In a third condition the burglary was supposedly sponsored by a competing advertising firm that offered $2000 to the subject for participating. The fourth condition was a control in which the burglary was explained as a dry run to determine whether the burglary plans were well designed (p.57).

While the concern of the investigators was primarily with the differential situational pressures of each of the conditions and how these affected the attributions
of actors and observers, embedded in the study was the possibility of an enlightenment effect. Would a burglary whose purpose was to help the government nail a big-time tax evader be more readily agreed to than one whose purpose was to help a competing firm get an edge in the market, or one whose only purpose was to try out the experimenter's plans? And, particularly, would criminology students agree to these activities in the wake of the tremendously publicized Watergate political crimes whose perpetrators justified their actions as being in the national interest? They did.

The government sponsorship/with immunity condition elicited compliance at a much higher rate than the other three conditions. Interestingly, the lowest rate of compliance (5 subjects out of 100) was in the government sponsorship/no immunity condition. While the investigators speculate that this low rate may be attributable to the possible hostility of subjects toward the IRS, it seems more likely that the strong declaration of no immunity (thus increasing the situational pressures toward non-compliance by making the possible negative consequences very salient) was the cause. On the other hand, if the investigators were correct in their supposition, then compliance in the immunity condition would be expected to increase with the substitution of a more esteemed governmental agency. As it was, nearly half (45 out of 100) of the immunity condition subjects agreed to participate.
It is interesting to note that observer subjects reading a description of the immunity condition underestimated by half the number of subjects who would agree to participate. This discrepancy between observer expectations and actors' behavior has been a consistent finding in the social psychological literature. Milgram (1974) reported that a group of psychiatrists, college students, and middle class adults estimated that only "a pathological fringe, not exceeding one or two percent" (p. 30) would continue to the end of the shockboard in Milgram's now famous obedience to authority study. Even observer subjects who know the results of Milgram's (1963) research underestimate the situational forces acting on the teachers. While observing a replication of Milgram's study observers predict less obedience than the known (to them) baseline rate (Bierbrauer, 1973; Ross, Bierbrauer, Hoffman, 1976).

These subjects apparently made what is called the "fundamental attribution error" in underestimating the importance of situational influences in controlling the individual's behavior (Ross, 1977; Nisbett & Ross, 1980). The full formulation of this "error" usually includes reference to observers overestimating dispositional factors in addition to underestimating situational ones. The experimental evidence conclusively demonstrates only the latter phenomenon. Nisbett & Ross (1980) argue, however, that "there is reason to suspect, nevertheless,
that a rather general "dispositionalist theory" is shared by almost everyone socialized in our culture" (p.31). It can be argued that individuals self-select into situations correspondent to their dispositions (Dutton, 1980). However, Nisbett & Ross (1980) point to the failure of researchers to "demonstrate anything like the cross-situational consistency in behaviour demanded by the dispositional view (cf. Hartshorne & May, 1928; Newcomb, 1929; and more generally Mischel, 1968; Nisbett & Ross, 1980, p.32).

Milgram (1974) affirms the notion of a dispositional ideology of the observer. In analyzing the explanations given by the psychiatrists, students, and adults as to why they would have disobeyed in the obedience study, Milgram (1974) concludes that the erroneous predictions follow from a central assumption that:

a person acts in a particular way because he has decided to do so. Action takes place in a physical-social setting, but this is merely the stage for its occurrence. The behavior itself flows from an inner core of the person; within the core personal values are weighed; gratifications assessed, and resulting decisions are translated into action.

Yet might it not be the case that some social behaviours are more amenable to enlightenment effects? For instance, Staub (1974) reported that in a prosocial behaviour experiment at least one person in 70% of the
experimental groups gave as a reason for their helping behaviour that they had heard about people often not helping when they should have and did not want to "be like that" (p.337). Rayko (1975) attempted an explicit enlightenment effects study using a classic bystander intervention design (Latane & Darley, 1970). Female subjects were asked to read an essay entitled either (a) "Scientific Findings About Helping in Emergencies" (Relevant Information Condition) or (b) "Scientific Findings About Mental Retardation" (Control Condition). The "Relevant Information Condition" constituted the enlightenment effect manipulation. The essay informed the subjects that increased numbers of bystanders decreased helping behaviour and explained the reasons for this in terms of diffusion of responsibility and the cue value of non-reacting others. It was written to be neutral with respect to prescriptive bias.

Subjects in both conditions were required to walk to another building and give a short video-taped talk on the essay they had read. While waiting to give their talks the subjects saw a workman enter the waiting room and carry his tools into yet another room where he proceeded to make appropriate working sounds with hammer and saw. Half of the subjects (in the together condition) were then joined by another young woman (confederate) who did not interact with the subjects but merely made
notes from posted notices. For the subjects in the alone condition no one appeared after the workman disappeared into the other room.

Within a few minutes there was a crash and cries of pain from the workman. At specified intervals, up to 30 seconds, the workman confederate continued to moan; then, silence. Subjects were given six minutes to help. The woman confederate in the together condition appeared startled at the sound of the crash, but then continued her copying, ignoring the situation.

Using a latency measure of helping, Rayko found that while having relevant information did speed up helping, (reduced the latency of those who helped) absence of the confederate was, as predicted by Latane and Darley's (1970) model, as good a predictor of helping. Rayko concluded that his results, in terms of the efficacy of public education upon behaviour were only "suggestive".

Several criticisms call into question Rayko's design as a serious investigation of enlightenment effects. The first of these is that an enlightenment effect cannot be measured independently of the bystander intervention model since an enlightenment effect of sorts is embedded in the model. The theory predicts that making helping behaviour salient will increase helping. Further, the confederate did not perform as an entirely "non-reacting other". Her startle response, albeit not followed by any
helpful or inquiring behaviour, did possibly help confirm for the subject that something was going on.

The second criticism concerns time. The bystander intervention model (Darley & Latane, 1968) does not make predictions about behaviour removed in time from the effects of "helping" having been made salient. In Rayko's study the enlightenment manipulation and the measurement of its effects were virtually coincidental, so that no diffusion of salience effects would be expected. Gergen's enlightenment effect theory can be seen to have both a trivial and important case. In the trivial case we would expose subjects to a model of social behaviour and then without delay put them into an identical situation. It would not be surprising if there were some effect on their behaviour. To test for enlightenment effects in this way is to not only trivialize Gergen's argument, but to implicitly, though not intentionally, express an a priori cynicism about our subjects' intelligence, to say nothing of ignoring the literature on attention (Easterbrook, 1959; Tolman, 1948).

Presumably, Gergen is not talking about the trivial case of how individuals will behave five minutes after processing information. Hopefully he is addressing the much more profound question of the effects of social psychological knowledge on behaviour patterns over time and in a variety of contexts. Given that social
psychologists do not have the power, ordinarily, to schedule the world's events to happen immediately after their lectures about relevant social behaviours, and directly outside their lecture halls, any theory about enlightenment effects must be one that includes the passage of time and the shifting nuances of individual situations. Given its import for the discipline of social psychology, Gergen's theory needs to be tested in situations where the recipients of social psychological knowledge are required to (a) generalize their knowledge to a variety of contexts (situations) and (b) do so at a time removed from its acquisition. Otherwise we are engaging in recognition tasks conducted in a vacuum free of the competing stimuli of the 'real world'. This is not to say that enlightenment effect studies must be carried out as field studies, only that our designs must have the virtue of experimental realism (Aronson & Carlsmith, 1968) engaging our subjects and simulating the relevant conditions of the environment in which the enlightenment effect is likely to occur.

Design Requirements

Conceptually, the research paradigm for studying enlightenment involves both a temporal dimension and a psychological/behavioural demand. At some time A, a subject is thoroughly informed about an experimental finding, or set of findings, and associated theories. Sometime after this, at time B, the subject is put into a situation
where she or he is to engage in a behaviour that is, in its essential principle, identical to that studied in the experiment about which they have been informed. This task then becomes a complex one of generalizing one's understanding across time to relevant situations in an environment of cues competing for one's attention. If Gergen is correct, the earlier exposure to social psychological theory should predispose individuals to behave differently from the participants in the original study(ies).

Concurrent with the execution of the study to be reported here (and unknown at the time to the current author) Brant (1978, 1981) attempted a direct test of Gergen's hypothesis that satisfies the above criteria. Subjects who had heard a lecture on Milgram's (1963) obedience to authority study were subsequently (several weeks to two months) enlisted to participate in a "learning" experiment using Milgram's original remote condition (no feedback from the learner). Brant's results were clear cut. His subjects consistently increased the level of shock to the learner and in the post-experimental interview were not able to identify the situation they had just participated in as one similar to the study they had read/heard about and discussed! When asked what they thought had been the purpose of the experiment they had completed, they not
only insisted that it had been to study the effects of punishment on learning (the usual cover story), but they could not correctly remember the real purpose of Milgram's experiment either. One individual who thought that there was some resemblance between the two opined that the purpose of both experiments was to study the frustration experienced by teachers when they have to deal with slow learners (!) (1978). Not only were these subjects not able to generalize from their supposed classroom understanding of destructive obedience to their current situation, but they had not remembered/understood/internalized the one aspect that one would have thought most salient: that one is apt to be deceived in a social psychological experiment.

A review of these studies suggests that enlightenment effects may not be easy to come by when individuals are required to generalize their understanding over time (Brant, 1978, 1981; West, et al, 1975) or when this information is in competition with situational (Darley & Batson, 1973) or intrapsychic demands (Katz, et al, 1959). Brant's study could be criticized on the grounds that his teachers had conceivably been subjected to a confused or incorrect presentation of Milgram's work or that they had taken a collective catnap during that set of lectures. Whatever happened, they clearly failed to generalize their classroom understanding to their own behaviour or to the
recognition of a social pattern (an obedience experiment). As Herbart (1816, in Kintsch, 1974) put it, the new information was not connected in a meaningful way with the subjects' past experiences nor with imagined future experiences. In Tulving's (in Kintsch, 1974) more elegant language, the classroom lectures, while probably encoded in semantic memory (and therefore retrievable for a semantic task, such as an exam), were not encoded in episodic memory, the memory of personal experiences.

In one of those happy though puzzling instances of serendipity that haunt the research enterprise, the experiment to be reported here was designed prior to Brant's study and as though in response to its critics. In order to give Gergen's hypothesis as much chance for support as possible, the plan in this study was also to use as the historical background the series of experiments by Milgram (1963, 1974) on obedience to authority. This research has had a tremendous amount of public attention in a number of newspapers, magazines, and even a dramatized television special, as well as having been described in almost every basic psychology text since the research was published. Furthermore, its subjects tended to behave in a manner that is not highly approved by our culture, so that one would expect newly informed participants to become aware of the parallels and follow different behavioural patterns. Milgram's results have been
replicated in several other cultures (Mantell & Panzarella, 1976; Shanab & Yahya, 1977), with children (Shanab & Yahya, 1977), and studied extensively with both males and females (Milgram, 1974; Sheridan & King, 1972). This body of research demonstrates that Milgram's results were not unique to New Haven during a particular period of time, nor to a particular sex, age, or socioeconomic standing (Milgram, 1974).

In the original Milgram studies, the subject (teacher) was led to believe that he was administering electric shocks of increasing severity to another participant (learner) whenever the latter made an error in recall in a learning experiment. Most of the teachers obeyed both the implicit and explicit constraints of the experiment and continued to administer 'shocks' (actually of course no shocks were delivered and the supposed learner was in fact a confederate of the experimenter) until a fairly high level was reached. Most people express amazement at Milgram's results and do not understand how his subjects could have allowed themselves to be manipulated into that kind of behaviour. They also tend to believe that they would not have participated (Nisbett & Borgida, 1975; Milgram, 1974).

The main issue involved is that the teachers, though visibly upset and distressed at the situation, complied
with the experimenter's demands to go on shocking the yelling, upset learner. Milgram has explained his results by pointing out certain characteristics of the situation that predisposed the teachers to compliance (1974). Important among these are:

1. the distress of the learner was balanced against the scientific importance and value of the experiment.

2. an apparently legitimate and otherwise benevolent authority sanctioned and insisted upon these actions.

3. this authority accepted full responsibility for the fate of the learner, insisting that while the shocks may be temporarily painful they would cause no permanent damage.

Reduced to a statement of its essentials, this was a situation in which one person agreed to severely distress another person at the behest of yet a third person for the sake of a supposedly important experiment when that experiment was managed and sanctioned by a legitimate authority who accepted full responsibility for any negative consequences. In the study to be reported here subjects who demonstrated that they understood this definition of the Milgram situation were asked to participate in an experiment whose defining essentials were the same. The subjects were recruited to participate in a social psychological experiment. All were volunteers and men and women were included in equal numbers. They were thoroughly familiarized with Milgram's design and results, and their
understanding and memory of Milgram's work was tested to ensure that it was adequate and accurate. The investigator expressed concern at the "lack of real scientific understanding" of the way Milgram's subjects had continued to cooperate, and explained the possible important scientific/social/ethical benefits to be gained by "developing a more thorough understanding of the obedience phenomenon".

It was explained to the subject that one important aspect of the original experiments was the relationship between the experimenter (Milgram or one of his colleagues) and the teacher. The current experiment was explained as a study to investigate the hypothesis that the status and expertise of the original "professional" experimenters were important factors in eliciting cooperation. Our own study, it was explained, would use students as experimenters to try to understand "just who will be seen as a legitimate authority" in a destructive obedience situation. The subject was asked if she or he were interested in helping to explore this vitally important issue.

If the subject agreed to participate she or he was asked to serve as the experimenter, running a naive teacher in a Milgram-like situation; that is, the task was to insist that the teacher continue to give simulated shocks to a learner who was actually a
confederate as in Milgram's original work. In fact, unknown to the subject (hereafter called experimenter) not only was the learner a confederate, but the "naive teacher" was also an actor(actress) confederate of the investigator. The teacher's script called for him or her to express unwillingness to continue with the study, criticize the mistreatment being inflicted on the learner, and in general behave as many of the reluctant teachers did in the original study, becoming very anxious and distressed. The high likelihood of the teacher becoming distressed was emphasized to the experimenter, though the investigator assured the experimenters that she (the investigator) took full responsibility for the teacher's welfare and that experience had shown that the traumatic effects on the teacher were not longterm.

Thus, the student-experimenters were asked to study a behaviour whose characteristics were strikingly similar to their own behaviour in participating in the experiment. In effect, the student-experimenters, for the sake of a scientific understanding, agreed to distress the teacher in order to understand why the teacher was willing to distress the learner for the sake of a scientific understanding.
METHOD

Subjects

Fifteen male and fifteen female Introductory Psychology students, drawn from a pool of volunteer subjects, participated in the study. Three potential participants were eliminated during an initial telephone interview because they expressed concern about their ability to handle stress during an experiment.

Apparatus

Apparatus included a 18 x 24 inch fake shock generator made of sheet metal with three rows of 10 push buttons. These push buttons were labeled with the supposed voltage level, beginning with '15' and continuing by increments of 15 to 450. Two large wood and masonite room dividers were used to separate teacher and learner. A one-way window allowed viewings of the entire experimental setting.

Procedure

After an initial telephone interview, subjects who agreed to come in for an interview to find out what the experiment was about were briefed at the laboratory. Questioning determined that almost all (25) of the subjects were familiar with some presentation of
Milgram's 1963 obedience study (had heard lectures about it; seen films and/or television dramatization "The Tenth Level"). The investigator (the author) then gave them the following information:

That the purpose of the study was to take another look at Milgram's study from the point of view of who is seen as a legitimate authority. To test the notion that psychologists can sometimes get people to do things they might not otherwise do we were going to use non-psychologists, i.e. university undergraduates to act as experimenters. A group of teacher-subjects had been located from outside the university who had agreed to participate in a learning experiment. The role of the learner would be played by a confederate as in the original study.

The subjects were then asked if they thought they might be interested in participating. A synopsis of Milgram's work was handed to each volunteer who was interested (Appendix I). After the subject had read the material the investigator returned to the room and requested answers to the following questions:

(a) why had Milgram studied obedience; (b) what happened during the experiment, i.e., how had the teachers behaved, what had they experienced; (c) what sort of justification had been offered to the teachers to participate and continue; (d) how had Milgram explained the behaviour of the teachers.

The synopsis had emphasized the distress of the teachers in the original study and the fact that they had continued to perform their tasks because of the apparent legitimacy and importance of the experiment and because the experimenter had explicitly accepted responsibility for all consequences. These facts were
re-emphasized to the volunteers. Twenty-three of the subjects were sure that they would have stopped when the learner expressed pain, six were not sure, and one was sure that she would have followed orders fully. All were asked to participate in a study aimed at understanding the Milgram phenomenon. Those who declined were asked questions designed to ascertain their reason, in particular whether it was because they understood the principle involved (enlightenment effect), because they felt it would be a bad thing to do (prescriptive bias), or some other reason (e.g., personal discomfort). These subjects were then completely debriefed and asked not to discuss the research during the remainder of the school year.

Those who agreed to participate were told that their task would not be an easy one, because the teachers probably would show extreme concern, just as in Milgram's research. However, the student-experimenters were assured that the investigator would be responsible for judging whether someone was experiencing too much distress and for terminating the experiment if necessary. The subject was then shown the experimental rooms and briefed on detailed procedures for running the session.

**Preparation for Experimental Session**

Upon reporting for the session, the participant was given a practice run by the investigator and the
learner-confederate. The participant (from now on called the experimenter) was reminded that the ultimate responsibility for the outcome, and the authority to terminate the experiment, lay with the investigator, and that the experimenter's job was to urge the teacher to continue administering shocks according to the rules. The experimenter was allowed to terminate the experiment only if the teacher unequivocally refused three times to push a particular button. In that case, or after the 450 volt button had been pushed, the experimenter was to end the session and debrief the teacher. This would involve an explanation of the real nature and importance of the study, an introduction to the learner, and particularly, reassurance that most people went up through 450 volts in the case of those teachers who had themselves done so.

When the teacher seemed calm, the experimenter would take him or her to another room to fill out an adjective checklist and participate in a tape recorded interview. The experimenter was then to return to the experimental room and likewise fill out an adjective checklist and participate in a tape recorded interview. The checklist asked the participant to rate himself, the teacher, and how he thought the teacher perceived them on a 1-5 scale on such adjectives as "tense", "obedient", "angry",
"calm", "friendly".

In actuality, the checklist and interview were used only with the experimenter.

Experimental Session

When the experimenter was ready to begin, the learner-confederate went out and joined the supposedly newly-arrived teacher. The experimenter then went out to welcome the "subjects", explained the learning experiment, and conducted the rigged draw. The experimenter then escorted the two subjects to their appropriate places, and explained the shock apparatus to the learner "in a voice loud enough for the teacher to hear."

Returning to the teacher, the experimenter explained the word list, the shock apparatus, and what to do if the learner made a mistake. The reading of the word list by the teacher then began. Subsequently the learner began making mistakes, and at each higher shock level gave increasing expressions of pain based on a standard script. In response, the teacher-confederate expressed uneasiness, then became quite anxious, angry, on the verge of tears; cursed, complained of stomach pains, asked for a glass of water, and pleaded with the experimenter to stop the session, at one point implying that people's feelings were more important than "your damned experiment."

On the basis of a memorized script, these responses were graduated in intensity as the voltage level went up. At
no point did the teacher refuse three times to push any of the buttons, the pre-arranged justification for terminating the experiment. At the end of the "learning" phase the procedures outlined in the preceding section were followed.

Results

Of thirty participants who came in for the initial interview, 26 agreed to serve as the experimenter (Table I). Later, two (males) of the 26 asked to be released from the agreement, giving the combined factors of flu and final exams as their reasons. They were not replaced. The four initial refusals were three women and one man. One woman and the man said they felt sorry for the Milgram's teachers and didn't think it was right to put anyone through that kind of stress. Upon being asked the debriefing questions, (focused on Milgram's experiment rather than the current study,) they both "discovered" the parallels between the teacher and experimenter roles. The two remaining women refused because they didn't believe that they personally could handle the role. One said that the idea of shock, even if fake, terrified her, but that she would participate if we could use another form of aversive stimuli. She also discovered the parallels when asked the debriefing questions. The other participant did not. The three who saw the parallels said that they had felt guilty at
refusing and the discussion had given them a rational reason for refusing.

Twenty-two participants completed the experiment, urging the teacher to push the 450 volt button. Only two terminated the experiment prior to this point. One participant who terminated the experiment did so at 360 volts, commenting later "she (the teacher) was going to go on and I just couldn't see prolonging her agony. I decided that if we got to 360 (volts) that would prove the experiment." The other participant became confused about the instructions thinking that a condition for termination had been met. He expressed dismay over this and volunteered to run another teacher, promising not to get confused "next time."

During the debriefing two participants (males) expressed suspicion about the teacher. Both of these participants had completed the experiment. When asked why they had continued, they gave identical reasons: there was a good chance that the teacher was "real" and they didn't want to ruin the experiment. Upon having their suspicions confirmed they both expressed disappointment saying that they would much rather have been in charge of a real experiment.

**Interview Results**

Twenty-two participants saw the teachers as being
very distressed, nine on a ten point scale. The deception was quite effective. In debriefing participants expressed surprise that the teachers were actors. Eighteen of the twenty-two understood, in the abstract, all the elements needed to draw the parallels. Only two however, were able to make specific and clear statements of the similarity of their own behaviour and that of the teacher. The post-experimental interview consisted of the following series of questions:

1. How are you? Is everything OK? (Participant discussed any immediate feelings here). It was then explained that a series of structured questions would follow.

2. From the teacher's point of view, what was happening to the learner? On a scale of one to ten how distressed was the learner seen to be by the teacher? Was this stress primarily physical or psychological? Mean = 9.68; primarily physical, but females often thought that there were elements of psychological pain also. (Table II).

3. Why did the teacher go on? What was controlling her or his behaviour? Did the teacher's obedience seem to result mostly from his or her personality, that is did the teacher just seem to be an obedient person,
or from the pressures of the situation that were extreme in this case?

Overwhelmingly the teacher was seen as being controlled by the pressures of the situation. Only one subject saw the (female) teacher as having a "weak" personality. The other participants strongly expressed their perceptions of the teacher as a basically good person who got confused in the pressure of the situation.

4. From your point of view (the participant's) what was happening to the teacher? On a scale of one to ten how stressed was the teacher? What kind of stress was this primarily, physical or psychological? What kind of response on the part of the teacher would have been indicative of such high stress that you would have terminated the experiment?

Mean = 8.95; stress was seen as primarily psychological though the teacher was seen to be suffering physical symptoms that resulted from the psychological stress, e.g., headache and stomachache (Table II). Two of the experimenters ran from the room when the teacher asked for water and inquired of the investigator if "we shouldn't stop." The investigator assured them that the experiment "should go on" and they returned to the experimental room. The other subjects calmly faced this tearful request by the teacher and told them they would have to wait until the end of the experiment.

5. Did you ever wish to stop the experiment? Why didn't you? Did you ever wish that the investigator would stop the experiment?

Twenty subjects said they definitely wanted to stop the experiment. Typically they said "I didn't want to make her (him) go on." They
expressed sympathy for the plight of the teacher, pointing out that the teacher didn't want to be doing this and was not a cruel person. In response to "why didn't you?" only five of the twenty-two responded with "I was obeying you" and thus assigning responsibility to the investigator. The others staunchly refused to do this, saying things like "I was in there and it was my responsibility"; "probably I should have stopped it but I wanted to get final results." Thus these subjects did not exhibit the diffusion of responsibility found by Milgram, but are in line with Mantell's (1973) study on the ascription of responsibility-in obedience studies. "Did you ever wish that I (investigator) would stop the experiment?" Seventeen said they definitly wished that the investigator had stopped the experiment. The other seven said definitly not. (Table III).

6. Which do you think was higher, the stress of the learner as seen by the teacher, or the stress of the teacher as seen by you?

In line with their previous estimates the experimenters reported that they thought the learner's stress as seen by the teacher was somewhat higher but, and this was strongly expressed, they found the teacher's distress to be nearly comparable. They did not see the teacher as significantly less stressed than the learner.

7. Do you think the teacher learned anything from doing this experiment? How do you think she (he) will justify her (his) behaviour to themselves?

The typical (17) response was that the teacher would learn how easy it is to acquiesce in the hurting of someone else and that this would give the teacher strength to resist such pressures in the future. The experimenters were not sure how the teacher was going to justify his (her) behaviour, but often expressed the hope that the investigators would do a good clinical/therapeutic job with the teachers in making
them feel better about it.

8. Did you learn anything from participating in the experiment?

15 experimenters commented on the surprise of learning how difficult it was to be an authority. They felt they had gained an understanding of the reciprocal nature of authority and obedience. 20 remarked on the difference between hearing/reading about experiments and the reality of "being there" in person. One male subject commented that he had always thought psychology experiments were "rinky-dink" but that this experiment changed his mind. He thought now that psychology might really be about something.

9. Do you think the purpose of this experiment justifies putting the teacher under such stress?

Subjects were divided on this and often single subjects expressed ambivalent sentiments. For example: "yes, but it was awfully severe, but if we find something out, but I'm not sure". Fifteen felt that it was justified, but only for "really important questions". The current study in general qualified, but only if we were very careful how we handled the teacher's feelings and self-esteem.

10. Would you participate in this study again if asked?

Ten said definitely yes, but fourteen said they didn't think so. They had found it a difficult task and didn't like to cause such stress for another human being. They did think it had been worthwhile, but felt they knew enough about it. Two of these said definitely not. Only five subjects said they had not felt personally distressed.

Participants were again queried about their feelings and given time to discuss them. They were assured that the teacher was being thoroughly debriefed by a clinical psychologist and reminded that followups of Milgram's
subjects had shown them to suffer no permanent damage from their participation. When the experimenters seemed talked out and calm they were allowed to leave with encouragement to call the investigator if they had any further questions or feelings about the experiment that they wished to discuss. They were told that we would get in contact with them when the study was completed to give them the "final results." They were asked again not to discuss their experience.

When the study was completed the subjects were debriefed by another researcher who was aware of the general design but did not know who continued and who did not. They were told that this was an opportunity to lodge any complaints against the experiment or investigator, and to discuss negative feelings they had toward the investigator. The debriefing then consisted of a series of questions designed again to see if the subjects could discover for themselves the parallels between the teacher and experimenter roles (Appendix About half of the subjects were able to accomplish this during the questions. All of the others finally "got it" when questions about the investigator were included ("from Georgia's point of view, what was happening to you"; "do you think that it was distressing for Georgia to watch the experiment run again and again").

No subjects complained of being treated badly to the
debriefer. Some expressed embarrassment at having been deceived, i.e., having bought the cover story, but, like Milgram's subjects, they affirmed their earlier comments about the importance of the study. A common statement was to the effect that the experience had been fascinating and they wouldn't have missed it. Extemporaneously they offered compliments about the cleverness of the design and the thoroughly believable way in which it was carried out. Most of them agreed that they would never trust a psychological experiment again, but expressed this in amused, not bitter tones.
At the end of this experiment we were left with many questions and not a little astonishment. We didn't yet know about Brant's (1978, 1981) work which was being conducted simultaneously, and therefore had no idea of the tenacity of the obedience/compliance response even after educational exposure to models of social conformity which, in Gergen's view, should "sensitize one to factors that might lead .... into socially deplorable actions" (p.311). Indeed, in both Brant's study and the one reported here, all of the supposedly "enlightened" subjects "having heard the explanation of what was to occur in this investigation .... thought it would be interesting"! (Brant, 1978).

In the current experiment, great care was taken to assure and assess the subjects' understanding of all aspects of Milgram's work. Subjects amply demonstrated that they experienced the "prescriptive bias" in that they expressed amazement and concern that Milgram's teachers had been willing to severely distress another person for the sake of an experiment. They all spent time considering what they might have done in the same situation. They were given graphic descriptions of the teacher's probable distress. Repeatedly they were given verbal information about their own role that was semantically
identical to information about the role of the teacher. They listened to the investigator say "of course I take ultimate responsibility for the welfare of the teacher," and then used that very phrase themselves to reassure the "distraught" teacher-confederate. Yet most of the student-experimenters did not recognize their task as being similar to that of the teacher. This was so even though they described their own experience and that of the teacher in very similar language ("she (the teacher) went on because she had volunteered and felt she had to; I felt responsible for getting final results"). What accounts for most of the subjects failing to integrate these perspectives while two (female) subjects underwent an "aha" experience?

The one subject who got it on her own was able to pinpoint the exact moment of, and stimulus to, her "enlightenment." She had performed very professionally in the role of experimenter. Some might say that she was quite cold and non-responsive to the distress of the teacher (an observer did say that and implied that this was unbecoming in a woman). While filling out an adjective check list this subject was bewildered when she had to rate both the teacher and herself on the adjective "obedient". She mulled this over for awhile and then, dramatically, dropped her pencil, her eyes widening and mouth opening. This was a look of sudden
comprehension that would be recognized in any culture (Bassili, 1979; Ekman and Oster, 1979). She sat shaking her head for a moment and then completed the list. When the investigator entered the room with a tape recorder the subject very excitedly proclaimed "I just figured something out! Oh my God!" and then, subdued, sighing with her eyes momentarily closed, "I feel so silly".

In the interview that followed she was able to very clearly and with no prompting state the "meaning" of the experimental events. She said, "I was doing to her (the teacher) exactly what she was doing to the learner. I made her go on and on and she was really upset and it was all just for the sake of getting it done because it seemed really important. And I bought that and she was really hurting but it was the task, you just get focused on it." Towards the end of the interview this woman, who knew no formal attribution theory made an eloquent statement of the fundamental attribution error (Ross, 1977): "You always think it's them, like the Nazis, that it's just the way they are and then you find out that it's you too, that in the right circumstances, maybe it's really all of us."

What this woman told us was that it never occurred to her to think about the meaning of her own behaviour in the events until she had to rate herself on obedience.
For most of the other subjects this rating presented little difficulty. They had either considered themselves obedient or moderately so without considering any relationship between their obedience and that of the teacher. This woman had not seen herself in those terms at all and was perplexed at being asked to do so.

One way of conceptualizing what happened was that she quickly performed a role analysis and looked at herself in relation to the investigator, something she had not done before. At that point she no longer saw herself as the totally free agent she had assumed, but saw all the subtle pressures and controls and the web of relationships that encompassed her. As long as she saw herself as a free agent, action and intention seemed to originate with her (she was to control the teacher; run the experiment). Her thoughts had been focused on "how am I going to get the teacher to keep going." She saw herself as acting upon, not as being acted upon. The investigator had, after all, focused all attention on the teacher and this cognitive sleight-of-hand was effective in eliminating self-analysis. As soon as a self-reflexive task was introduced it all fell into place for her.

But what of the other subjects? Clearly they did not process the information as did this woman; but why not? The research group was divided in its opinions
among three explanations. Two of them represent very
different perspectives within social psychology. The
first is an older, motivationally-based view of man as
ego-defensive, a dissonance reducer whose actions are
designed to save face and avoid internal confrontations
with one's own irrational behaviour (Festinger, 1957).
The other comes out of the information processing model
and does not consider motivational factors necessary to
explain attributional errors. According to this view
cognitive wiring and situational factors predominate in
the so-called self-serving biases (Bem, 1969; Ross, 1977).
The third explanation was that there were, in fact, no
parallels. If so, then the "tenth level" hypothesis
(named after the television drama about Milgram's work
whose theme was the same as the hypothesis of this
experiment) was unique to the investigators and our
"unenlightened" subjects were in fact "veridical
perceivers of reality" (Heider, 1958). This last would
have to be a probabilistic explanation since two subjects
did draw the parallels, one without any help from the
investigator, and other subjects revealed varying degrees
of consciousness of these parallels. But perhaps the
parallel hypothesis would not occur to most people and
therefore, in terms of an enlightenment effect, the
experiment was not valid.

Accordingly, one of our hypotheses was that
ego-defensiveness accounted for our subjects' failure to draw the parallels between the teacher's behaviour vis-a-vis the learner and their own behaviour vis-a-vis the teacher. When seen as unconscious and non-deliberate, this defensiveness was demonstrated by the subjects' use of parallel explanations that were couched in different terminologies when explaining the teacher's behaviour versus their own ("the teacher had to cut herself off from the learner in order to go on"; "I had to detach myself from the teacher in order to run the experiment"). Thus it could be surmised that these subjects, who had overwhelmingly (29 out of 30) expressed dismay and wonderment at the behaviour of the teachers in the Milgram study could not now face their own parallel behaviour. In other words, the prescriptive bias did not prevent them participating, but might subsequently make denial a necessary strategy. If it were the case that motivational factors precluded insight, then observer subjects who were not personally involved (had not violated the prescriptive bias against destructive obedience) should be able to see the parallels, if these "really" existed. Our next experiment was designed to test this hypothesis.

The plan in this experiment was to have observer subjects watch a videotape of the first study. (In actuality the videotape was of a simulation of the first study. The original teachers and learners (females and males) played
their roles as before. The parts of the experimenters were played by two graduate students, one male, one female.)

The observer subjects were given the same information as the student-experimenters had been given (same cover story; same synopsis of Milgram's work). What differentiated these subjects was their observer perspective. They would not be asked to engage in any behaviour that could violate an ethical prescription and presumably would not suffer from a motivationally based distortion in their understanding of the events. If ego defensiveness accounted for the student-experimenters' inability to see the parallels between the teacher's actions/role and their own, then non-involved observers should be more likely to see those parallels.

Subjects taped responses were analyzed by a rater who was blind as to the experimental hypothesis.
METHOD

Subjects

Our subjects were 90 students from undergraduate social psychology classes who had not yet discussed Milgram's work other than in the introductory classes. In the first session twenty-three subjects were run.

Procedure

These observer-subjects were asked to watch a videotape of a "real" experiment. Prior to viewing the film they were given the same information as the experimenter-subjects in the previous study, read the same synopsis of Milgram's work, etc. They were led to believe that the teacher was the real subject. The observers were asked to watch the video-tape (in fact a simulation of the experiment just reported) and then answer, in written form, a series of questions about their perceptions of what happened. (See Appendix II).

Results

The observers became noticeably aroused viewing the film. Their agitation (verbal and nonverbal) was obvious to three researchers who watched them. The observers were quite vocal about it after viewing the film in discussion with the investigator. If our observers were aroused we could not test the ego-defensive hypothesis independent of an arousal hypothesis (cognitive narrowing due to arousal) (Easterbrook, 1959).

Analysis of the questionnaires showed
scant ability to analyze the situation. Only one subject out of twenty-three drew any parallels between the role of the teacher and that of the experimenter. The others gave answers that had some elements but were confused or were unable to draw any parallels at all. Nor were they able to answer in any detail questions about the experimenter-subjects. In contrast they could write in detail about the teacher. This suggests that their attention was riveted on the teacher whom they rated as being extremely distressed (9.2 on the ten-point scale, Table Second Design

Given that the video-tape appeared to be a powerfully arousing stimulus, we decided to see if we could produce differential arousal by varying the information about it. We decided to run another condition in which all the information was the same as the first with one exception. The second group was to be told that they would see actors playing the roles of experimenter, teacher, and learner in a hypothetical experiment. We reasoned that observers would experience less arousal and empathic involvement if they believed that the distress of the teacher was being acted out and that the video-tape represented an entirely hypothetical situation. One more group of the "real" condition was run, and two groups of the "role-playing" condition were run. In all, 90 subjects viewed the film. A rater, blind to the experimental hypothesis, scored the written responses
to the questionnaires. Any parallel noted between the actions/role of the teacher and that of the experimenter was scored as a positive response.

The second session of the "real" experiment was comparable to the first. Three out of twenty-two subjects drew the parallels. The others were unable to draw the parallels clearly or to write in detail about the experimenter. They showed all the same signs of agitation as the first group and one observer became so upset she had to leave the room.

The two sessions of the "role-acting" condition were markedly different in tone from the "real" condition. Subjects laughed somewhat nervously, but not at all with the tension of the other groups. A subsequent study by Dutton, Pratt, and Borrie (1979) verified that the physiological arousal of the "real" experiment is significant and significantly higher than the arousal of the "role-playing" condition.

The questionnaire results of the "role-playing" condition were also strikingly different from those of the "real" condition. (See Table IV). Over half of the subjects in this condition (29 out of 45) drew the parallels ($X^2 \cdot P < .001$). Further, and most pertinent, their attention was much more evenly distributed between the teacher and the experimenter. Twenty of these observers commented on specific behaviours of the
experimenter ("she was fiddling with her pencil") and made non-role defined attributions ("she seemed nervous"); "it was difficult for her to do"; "she learned that it is difficult to be an authority") as opposed to the role-defined attributions of the "real" observers ("she was watching the teacher"; "she was making the experiment work"; "she learned what she set out to learn, whether the teacher would go on").
Discussion

Taken together these two experiments illuminate how captivating some aspects of an experience can be at the expense of our ability to consider other, potentially equally informative, aspects (Taylor & Fiske, 1978). The results of the second (observer) study demonstrate that arousal could be a sufficient explanation for the failure of the student-experimenters to either stop the experiment (due to an enlightenment effect) or, subsequently, to see the parallels between their own role and that of the teacher. Like both Darley and Batson's (1973) hurrying seminarians and the observer subjects in the higher-arousal "real" condition, the student-experimenters likely underwent a narrowing of the cognitive map (Tolman, 1938).

This narrowing does not require arousal, but is accentuated by it (Taylor & Fiske, 1978). The observers in the "real" condition were less able to think about the student-experimenters than the observers in the "role-playing" condition whose attention was more distributed between the teacher and the student-experimenter. Thus, Taylor and Fiske's claim that "causal perception is substantially determined by where one's attention is directed within the environment and that attention itself is a function of what information is salient" (p.253) was also substantiated in this experiment. Taylor and
Fiske further argue that "information connected with the salient person or attribute is stored at the top of the mental heap or in some easily retrieved form" (p.270). Why this is so is not yet altogether clear, but it appears that differential attention affects primarily the retrieval process and secondarily the encoding process (p.270). Information about a non-salient person is stored, i.e. encoded, but not in a fashion that makes it as retrievable as information about a salient person.

To the observer the teacher is more salient for two reasons: (a) he or she is upset, yelling, swearing, i.e. moving and novel, (Taylor & Fiske, 1978) as contrasted to the relatively calm, in charge, student-experimenter; and (b) the definition of the situation is that the teacher is the object of study. Taylor and Fiske make the point that availability may be the most important mediating factor in the perceptual salience effect. They suggest that cognitions can be affected in much the same way. Persons in any situation must figure out "what's going on?". Both the student-experimenters and the observers were given, with varying degrees of explicitness, a reasonable, congruent to the events, situational definition, i.e., that the purpose of the study was to study the obedience
of the teacher. In general, we all assume that experiments are conducted to study subjects and not experimenters. The cognition, "what is the meaning of the experimenter's behaviour and role" is not made salient in most discussions of research findings. Interestingly, Milgram's work on obedience has probably elicited more of this sort of analysis than any other experiment in psychology. The observer subjects were all from upper-division social psychology courses and were familiar with the controversy surrounding the obedience studies. Still, their attention was largely riveted on the teacher.

The observers in the "role-playing" condition were far more likely to see some parallels between the predicaments of the teacher and the student-experimenter, and even more likely to attend to the student-experimenter than the observers in the "real" condition. We suggest that the distribution of attention effect may be in part attributable to the definition of the situation as role-playing. In the "real" condition the object of study is the teacher and attention is naturally directed towards this salient person, the student-experimenter probably becomes a background stimulus. In the "role-acting" condition however, both the teacher and the student-experimenter are
objects in the sense that observers may wonder how well they will each enact their roles and what kind of drama they are able to create.

Goffman (1959; in Harre, 1972) claims that understanding of any situation is enhanced by assuming the dramaturgical standpoint, and that "adopting the dramaturgical model .... is a way of attaining the general standpoint from which it becomes possible to discover the ethogeny of an episode, the roles and meaning which explain what is done and what is said" (p.413). The dramaturgical standpoint gives the observer a cognitive means of ameliorating the engulfment of his or her attention by a particular role or person.

From the perspective of this sort of analysis, the observers in the role-playing condition were given some role-distance. However, the task of the second experiment directed their attention back towards the individuals inside the drama. Thus it is not surprising that these observers were not able to produce an integrated analysis, "simultaneously from the point of view of author, producer and director" (Harre, 1972, p.416).

In the next, and last, experiment we attempt to provide this perspective for observers with a direct definitional manipulation.
Imagine yourself coming upon the following scene:

In the garden of a country house, in plain view of passers-by on the sidewalk outside, a bearded man can be observed dragging himself, crouching, round the meadow, in figures of eight, glancing constantly over his shoulder and quacking without interruption.

(Watzlawick et al., 1967)

Had you the fortune to walk by at that moment would you have known what was going on or would you have been one of "a row of dead-white faces: a group of tourists ... standing at the fence and staring horrified"? If you had been a resident of the neighbourhood you might have explained, in amused tones, that the crouching quacking man was the renowned ethologist Konrad Lorenz in the midst of one of his imprinting experiments with ducklings that were hidden in the tall grass (Lorenz, 1952, p.43 in Watzlawick, et al., 1967). To those who know nothing of ethology or imprinting you could have offered further explanations about the scope and purposes of the science of ethology, the imprinting hypothesis, and the ubiquitously eccentric behaviour of field ethologists. Most of your audience probably would have murmured "Oh, I see" and turned back to now watch an ethologist engage in some well reasoned behaviour given his values and intentions. As you continued down the walk you might have overheard the comments of a few dissidents unmoved to comprehension by your erudite explanation, but most would have been
assuaged, no longer fearing that they had come upon a madman in the grip of an avian delusion.

In the book from which this scenario comes, *Pragmatics of Human Communication*, Watzlawick et al. (1967) give many examples of the seemingly incomprehensible nature of events when "the range of observation is not wide enough to include the context in which the phenomenon occurs" (p.20). Failure to take into account the "intricacies of the relationships between an event and the matrix in which it takes place" leaves the observer with a total mystery or "induces him to attribute to his object of study certain properties the object may not possess" (p.21). To make, then, a dispositional attribution.

As noted by Jones and Davis (1965) the search for an explanation is often terminated when a disposition is inferred. "Madman" would serve since the implicit consensual norms about craziness include the acting out of counter-normative behaviour (quacking). Having made an attribution (such as "crazy") we are seldom pressed to search for other explanations. Rather we adduce evidence to support the attribution. The mental health workers in Rosenhan's (1973) study, having judged the confederates to be mentally ill, found further compelling evidence of the development of mental illness in the
true histories of normal people.

Kanouse (1972) argues that in general individuals only seek for a "single sufficient explanation for any event, rather than one that is the best of all possible explanation" (p.131). When a good (seemingly sufficient) explanation comes to mind, the lay scientist (Kelley, 1971) or intuitive psychologist (Nisbett & Ross, 1980) is subject to few contingencies, in the course of everyday life, that would motivate a further search (unlike professional scientists who know that they will have to justify their work to critical colleagues, and who must make the pretense, at least in print, of following an "objective" set of rules of inference). Kanouse states that:

This bias may reflect a tendency to think of unitary events and actions as having unitary (rather than multiple) causes; individuals may assume, in effect, that no more than one sufficient explanation is likely to exist for a single phenomenon. Thus, when more than one satisfactory explanation is potentially available to an individual, which one he adopts may depend primarily on which of the various possible explanations is most salient. (p.131)

As has been well documented (Jones & Davis, 1965; Nisbett & Valins, 1971; Kelley, 1971; Nisbett & Ross, 1980) the most salient explanation of an event for observers is often the dispositions of the actors involved. More particularly, one actor is apt to seem especially
causally efficacious by virtue of standing out, or being salient, in some way. The salient actor may be highlighted because of any one of a number of arbitrary factors. In one study (Taylor & Fiske, 1975) discussion groups composed of either all whites or whites and one black were video-taped. The scripts were the same for both groups. However, observers watching the video-tapes believed that when the one black discussant spoke one set of lines he was far more important in controlling and leading the group than when a white discussant occupied the same seat and spoke the same lines. In a series of experiments Taylor and Fiske (1978) have demonstrated that mere salience will strongly affect observers' attributions even when the highlighted person is in fact no more active or causal than any other actor. Taylor and Fiske make the point that the dispositional attributional bias reflects a focus of attention effect. If the situation, rather than the actor, is made salient then observers are more likely to make situational attributions. However, and this is a crucial point, actors are more likely to seem salient than are situations unless a concerted effort is made to direct attention to the situation.

Explanations for this have been offered along perceptual lines (Heider, 1958; Jones & Nisbett, 1971).
Actors talk, move, and are simply more given to immediate perception than are situations. Situations are comprehended, not seen, though we may use the language of perception to describe our comprehension, as in "now I see what's going on". Dretske (1969) has discussed extensively the use of the metaphor of sight in the act of comprehension in his volume Seeing and Knowing. More correctly we might say "I realize what's going on" but our extensive use of "seeing" to mean realizing, or understanding, may reflect the cultural primacy of sight in the acquisition of knowledge. In any event, knowing that one person has struck another by virtue of having seen the blow involves an act of knowing considerable less abstract than understanding the confluence of factors that resulted in the blow.

In the final analyses the answer to the "fundamental attribution error" phenomenon may be the result of a combination of many factors including that situational analysis are (1) less immediately given; (2) require more cognitive work, in part because (3) our language abounds in descriptions of individual traits while offering few descriptions of situations (Bem & Funder, 1978).

While North American social psychologists investigate this "error" in attribution, our European
colleagues consider that North American social psychology is itself guilty of a similar bias. Tajfel (1972) claims that for Americans "the individual is the genotype of social psychology" (p.95). He illustrates this individualistic bias by quoting Berkowitz (1962) on aggression and group relations:

Granting all this, the present writer is still inclined to emphasize the importance of individualistic considerations in the field of group relations. Dealings between groups ultimately become problems of the psychology of the individual. Individuals decide to go to war; battles are fought by individuals; and peace is established by individuals.

(p.167)

To North American "ears" this argument makes surface sense. Yet how many of us understand it's fundamentally reductionistic nature? Read Tajfel's telling paraphrase:

Granting all this (i.e. the biological and psychological considerations) the present writer is still inclined to emphasize the importance of considering the field of group relations in terms of social structure. Dealings between groups cannot be accounted for by the psychology of the individual. Governments decide to go to war; battles are fought by armies; and peace is established by the government.

(p.97)

Tajfel (1972) and Moscovici (1972) have both argued that by and large North American social psychology has framed social process in interindividual rather than social terms. Moscovici admonishes us for our "numerosity" (p.55) approach to understanding social
behaviour, i.e. how does the behaviour of the individual change in response to the appearance of other individuals. "Social" then means the effects of the aggregate of individual traits. Moscovici claims that with few exceptions North American psychologists locate the social in behaviour and thus assume that social behaviour is to be understood as like any other behaviour, "as being determined by the same psychological causes as other kinds of behaviour, and by the same systems of physical stimulation" (p.61).

A tongue in cheek reformulation of the dispositional bias written by some future historian of psychology might read like this:

There was a ubiquitous tendency among North Americans to focus upon the individual when trying to understand what were in fact social processes. These "subjects" nicely reflected the ideology of their culture and most particularly the ideology of North American social psychology which itself failed to "locate behaviour in the social". Ironically, when North Americans participated in attribution experiments their quite natural (given their ideology) overestimation of dispositional factors at the expense of situational factors was analyzed by investigators as a cognitive "shortcoming" located within the individual perceiver. These researchers failed to comprehend their own individualistic bias. The modern reader may find it extraordinary that these investigators did not understand the dispositional nature of their own theories about dispositional attributions. However it must be remembered that knowledge of a
phenomenon does not render one automatically immune to the effects of the phenomenon.

The perceptual salience arguments about attributions are appealing and in some measure correct, but they do not offer a genuinely social psychological analysis. Precisely because they focus on what is going on inside the (albeit "universal") perceiver rather than attempting an analysis of the frames of reference that determine what is to be considered salient in an event. That observers focus on the individual actor makes sense given the cultural assumptions about the individual being the fundamental unit of analysis. Berkowitz (1962) avers that the individual goes to war and the individual makes peace. Observers' attributional "errors" are, in form, no different. If we as social psychologists, have failed to take into account the truly social in our theories should we be surprised that our experimental subjects don't? Individualistic explanations are normatively based in our culture and science.

This line of reasoning raises an interesting question. Are we so culturally bound that we cannot take into account contextual explanations of social behaviour or are we only most likely to focus on the individual. The latter seems to be the case. Popper (1972) would add that our thinking can only be as good
as our theories. That theories, be they of the explicit formalized type or the loosely structured, general framework variety direct our attention to those aspects of a situation to be considered important. Taylor and Fiske (1978) argue that whatever is made most salient will become central to a causal analysis. We assume then that in the absence of a manipulation that directs attention to contextual factors, or a role analysis, our subjects' attention, and explanations will reflect the assumptions of their culture and of the field of psychology and that they will explain events in terms of dispositions of actors.

In the first two experiments reported here subjects did not explain events in dispositional terms. They believed the teacher went on due to strong situational pressures. Several factors probably combined to account for this: (a) they had been given Milgrams' explanation of obedience which stressed the strong situational pressures on the teacher, and (b) they knew that there was high consensus (Kelley, 1971) in the behaviour of subjects, (c) they could see, over a period of time (30-min) the action of the experimenter in applying pressure on the teacher. However, they did allow their attention to be captured by the teacher, his or her distress, and did not step back to look at the situation in larger terms, including the meaning of the experimenters' actions, and the purposes of the investi-
gator. In the next, and last experiment, we will attempt to reverse this finding by manipulating observers' frames of reference.

Eiser (1971b in Tajfel, 1972) in discussing dimensional salience, i.e. what frame of reference has the highest probability of being used to interpret events, says that "a description of an individual's frame of reference as such may tell one far more about his "attitude" than would any mere measure of favourability (after Sherif & Hovland, 1961; and Upshaw, 1965) .... it may, indeed, go some way towards providing an explanation of his attitude" (in Tajfel, 1972, p.83). Alexander (1970) further argues that we can only begin to generalize experimental findings to specified social situations when we take into account the definition of the situation and that this should be social psychology's primary concern in that:

Ultimately, most of the human behaviours that social psychology will want to explain do occur in normatively anchored and socially defined situations...we might better attempt to control, measure and manipulate the socially validated interpretive frameworks--the situational meaning--that subjects use in defining experimental behaviours.

Ironically the experimenter effect may be the most important phenomenon to be studied as opposed to trying to eliminate it.
In the second experiment subjects who watched a performance (the role-acting condition) and experienced less arousal (Dutton, 1979) were more able to generate at least one parallel between the actions of the teacher and the actions of the student experimenter than the subjects who watched what they were led to believe was a "real" interaction. But in no case did any observer-subject demonstrate a grasp of the global situation or an understanding of the meaning of the first experiment in terms of an enlightenment effect. We now move to test the hypothesis that an enlightenment effect is a function of a frame of reference that makes salient the interplay of many levels of meaning in a situation.

In his book *Godel, Escher and Bach: An Eternal Golden Braid*, computer scientist David Hofstader (1980) writes about the nature of the analysis that allows for exactly this task of conceptualizing multiple meanings. His topic, the limits of artificial intelligence, is elucidated in terms of self-referential systems as manifested in Godel's theorem (all consistent axiomatic formulations of number theory include undecidable propositions), Bach's canons, and the paradoxical drawings of Escher. Read Hofstader's description of Bach's musical innovation:

The idea of a canon is that one single theme is played against itself. This
is done by having "copies" of the theme played by the various participating voices.

(p.8)

Lovers of Bach delight in tracing the interweaving voices playing the theme against itself. It is an intellectual task of relatively high order and is described in the artificial intelligence literature as a "strange loop" (p.10), a phenomenon that occurs "whenever, by moving upwards (or downwards) through the levels of some hierarchical system, we unexpectedly find ourselves right back where we started" (p.10). Hofstader claims that the ability to comprehend this process depends on "jumping out of the system" (p.37) and that "it is an inherent property of intelligence that it can jump out of the task which it is performing, and survey what it has done" (p.37). Note how Hofstader's description of intelligence parallel's our earlier discussion (p.54) of Goffman's dramaturgical standpoint, that perspective from which one gains role-distance and is able to deduce the rules and meanings of an episode. We are most intelligent then when we not only accomplish the task at hand, but when we gain distance from the task and place it within a larger context. Rokeach (1973), for instance, created stable value change in subjects who were confronted with the implicit contradictions of various values they professed.
Tessor (1978) argues that individuals will strive for consistency within a particular schema that is being processed but do not, in general, concern themselves with interschema consistency. The inherent property of intelligence that Hofstader writes of is precisely the ability to consider, simultaneously, several schemas concerning the same object or event. To decenter, in Piaget's terms, from a particularly salient explanation, or aspect, of the situation.

The reader is directed back to Eliot's lines from his poem *Little Gidding* with which this dissertation began:

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We shall not cease from exploration  
And the end of all our exploring  
Will be to arrive where we started  
And to know the place for the first time
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Eliot's theme is that human meaning is gained only through this life-long and arduous task of re-considering, re-evaluating, exploring the possibilities. Only then can we truly see the thing, the person, the situation. The myriad perspectives are subsumed within yet a larger perspective. Then we may say "now I see what's going on".

In this last experiment all subjects are asked to read a written account that explains what happened, from the point of view of the student-experimenters, in the first experiment.

This account describes step by step, the sequence
of events, what was said, responses, etc., but makes no mention of the meaning of the experiment from the investigator's point of view, or offers any analysis of the events. All subjects then watch the video-tape simulation of the first experiment that observers in the second study watched. Subjects are in one of two conditions. Half receive a set of instructions (prior to reading the account or viewing the film) that sensitizes them to the many possible levels of meaning in any situation and defines their task as figuring out what the meaning of the first experiment was from the point of view of the investigator. If Taylor and Fiske's (1975; 1978) point-of-view effect generalizes from perceptual processes to cognitive processes (as has, in limited form, been demonstrated) these subjects should be able to generate the investigator's understanding of the situation. This finding would corroborate our hypothesis that an enlightenment effect is a function of a frame of reference that makes salient the meanings of relationships rather than focusing attention on the actions of individuals.

The other subjects will be given a set of instructions that defines their task as recalling, from their reading and viewing, as many concrete instances of behaviour as possible. These subjects,
focused on molecular aspects of the situation, should have their attention sufficiently captured that they won't, as the saying goes, be able to see the forest for the trees.
Methods Section Experiment Three

Subjects:
Subjects were 30 volunteers drawn from introductory psychology classes. There were 4 males and 26 females.

Materials:
Materials included a written description of experiment 1, two sets of instructions (one for each condition), and a video-tape simulation of experiment 1 (the same video-tape used in experiment 2). The description (Appendix _____) was designed to give the reader essentially the same information about the first experiment that the original student-experimenters had received. The teacher's confederate status was not revealed. Nor was the true purpose of the experiment. The description contained only the sequential details of the first experiment.

The two sets of instructions corresponded to two conditions, the molar and the molecular, and each was read before reading the description and viewing the video-tape. The molar set of instructions (Appendix _____) alerted the subjects to the possibility of multiple meanings or perspectives in any social episode and informed them that their task would be to figure out what had been going on in experiment 1 from the
point of view of the investigator. The other set of instructions, the molecular set, directed the subjects' attention to the concrete, minute aspects of behaviour in the situation and informed them that their task would be to recall as many of these specific instances of behaviour as they could following their viewing of the video-tape.

The video-tape was the same as that used in experiment 2 and consisted of a simulation of experiment 1 filmed from the perspective of the observation room and focused on the student-experimenter and the teacher confederate.

The last material was a matching task instrument (Appendix __________). It required the subjects to first match and then rate the degree of correspondence between experiences of the teacher and those of the experimenter.

Procedure:

After arriving at the research office subjects were told that they would be reading an account of an experiment and then watching a video-tape simulation of that experiment. Subjects were asked to sign a consent form allowing the investigator to report their responses anonymously.

Subjects were then given one of the two sets of instructions to read along with the investigator.
Subjects who were in the molar condition were asked to generate two examples of how the meaning of a situation could be different depending on one's perspective and/or role in the situation. This served as a manipulation check on the subject's understanding of the concept of multiple perspectives. If a subject could not do this he or she was allowed to complete the study but the data was thrown out.

All subjects next read the same detailed account of the first experiment (Appendix ________). When they completed their reading they watched the video-tape. With the termination of the video-tape subjects in the molar condition were asked to generate an alternative hypothesis to the ostensible one (studying the obedience of the teacher). Each subject's responses were tape recorded. The subjects were asked to rate the confidence they had in their alternative hypothesis on a scale of 1 to 10. They were then asked if they had a second hypothesis (or more) and, if so to rate it. Each time the subject was asked to elaborate his or her hypothesis as fully as possible.

Subjects in the molecular condition were first given three minutes to recall as many instances of concrete behaviour as they could. Then they were asked if it had occurred to them, during their reading or viewing, that something besides the ostensible definition,
as above, had been occurring in this experiment. The investigator then proceeded as with the molar condition subjects.

Finally, all subjects were asked to complete the matching task. After completion of this task they were all asked if they wanted to make any changes in their hypothesis about what was happening in the video-taped experiment.

At the completion of these tasks all subjects were fully debriefed. They were told that they had been in one of two conditions and that the conditions were designed to elicit different understandings of the events. The original experiment was explained to them in detail, including the hypothesis of the investigators. Any questions the subjects had were answered. Subjects in the molecular condition were assured that their failure to see "what was going on" was expected given the distraction condition they were in.

Results:

The main measure was the subjects' ability to generate alternative hypotheses. A rater, blind to the experimental hypothesis, analyzed the randomly presented tape-recorded responses of subjects from both conditions. In the molar condition 12 out of 15 subjects generated, as their first hypothesis, about the meaning of the experiment, the idea that the investigator was really studying the interplay between the teacher and the
experimenter with the idea of seeing whether the experimenter would go on because the experimenter was in fact engaging in the same behaviour as the teacher. All of these subjects pointed out that the experimenter was forcing the teacher to go on in order to achieve a scientific understanding, that the teacher was suffering in the same fashion as was the supposedly, the learner, and that the experimenters had failed to analyze their own behaviour and role. Three subjects did not meet these criteria for understanding the experiment. Of the three however, one subject did generate this hypothesis in total before viewing the video-tape and then revised that opinion after watching the video-tape. His reason was that the emotional suffering of the teacher was not comparable to the supposed physical suffering of the learner. This response reflected an intriguing difference between our male and female subjects that was an unexpected finding. Unfortunately we did not have enough males to include this as a parameter. In the molecular condition males told us that physical suffering was worse than emotional suffering while our female subjects thought that emotional suffering of the teacher was far worse than the suffering of the learner as portrayed in this particular experiment.

In the molecular condition only one subject generated the hypothesis immediately after viewing the video-tape
and completing the bogus recall task. The other fourteen subjects were baffled at the question and could not generate any hypotheses other than the ostensible one. After completing the matching task, however, all these subjects were able to generate the investigator's hypothesis. The molecular condition subjects all reported that the matching task made the meaning of the experiment obvious but that they had been too distracted by the recall task to give any thought to analyzing the experiment from any other perspective. Molar condition subjects were convinced however, that the true meaning of the experiment was obvious and that they would have seen this meaning whether or not they had read the materials. The differences between the molar and molecular conditions were significant at $p < .005$ (Fisher's Exact T, see Table ).

The molecular condition subjects' three minute recall (of concrete instances of behaviour) responses were also analyzed by the rater. The categories were (a) reference to teacher; (b) reference to experimenter; (c) reference to learner; (d) reference to situation, and (e) reference to interaction between a, b, or c. The results (Table ) were that seventy-two percent of the observer's responses were directed towards the teacher, thus further corroborating our earlier finding that as ostensible (and distressed) "object" of the
experiment the teacher indeed "engulfs the (attentional) field" (Heider, 1958). Further, sixty-five percent of the responses directed towards the teacher mentioned the emotional state of the teacher. This may reflect the disproportionate number of female to male observers. Sixteen percent of the responses were directed towards the experimenter and all of these were instrumental ("the experimenter then insisted that the teacher go on").
Discussion

The multiple perspectives manipulation was effective in directing observers' attention to the similarities between the role characteristics of the teacher and those of the student-experimenter. It is important to note the ease with which 12 out of 15 subjects in the molar condition generated the investigator's perspective. All twelve expressed the belief that the parallels between the experimenter-teacher dyad and the teacher-learner dyad were obvious. Not one seemed aware of the power of the molar condition instructions in eliciting their responses. Nisbett and Wilson (1977) have reported this phenomenon. In their summary of the work on individuals' understanding of their own problem-solving processes Nisbett and Wilson conclude that "...(a) the influential stimuli are usually completely obscure - the individual has no idea what factors prompted the solution; and (b) even the fact that a process is taking place is sometimes unknown to the individual prior to the point that a solution appears in consciousness" (p.240). For these subjects the matching task increased their confidence in their original judgement (Table)

The molecular condition subjects were originally
unable to re-orient, or decenter, from the definition of the situation that was given to them, i.e. recalling concrete instances of behaviour in an experiment. Completion of the matching task effected the re-orientation. One is reminded of the Gestalt figure-ground exercises. In one a drawing incorporates a picture of a stylish young woman and a picture of an old woman. For example, the jawbone of the young woman is the profile of the nose of the old woman. A person can usually see one, but not both, of the pictures. People will try with difficulty to see the other but often fail until their attention is drawn to particular aspects of the drawing that outline the other woman. And so, we claim, it is with our comprehension of social situations. Subjects in the molecular condition fixed their attention on one dimension of analysis, concrete instances of behaviour. The matching task allowed them to incrementally re-orient their understanding. Again, it is important to note that upon completion of the matching task these subjects found the meaning of the experiment obvious, but, in the exasperated words of one subject, "I was so distracted trying to remember all those behaviours!".

Schutz (1970) has argued that consciousness (attention) is thematic and that in most circumstances the theme is determined by the problem at hand.
Individuals tend to accept an implied and/or given definition of the situation unless some problematical aspect alerts them to continue processing available situational information or to seek further information. The question "what's going on here?" acts as a general cognitive operator, or guide, that initiates a search for information. Walking into an experimental situation the subject may be alert to this question, but if his or her availability heuristic* (Tversky & Kahneman, 1973) is guiding the search then the questioning will cease upon the availability of a "suitable" explanation (Nisbett & Ross, 1980).

The ecology of the experimental situation (Bronfenbrenner, 1974) is such that the best predictors of the length of a subject's search are probably (a) the strength of the cover story, i.e., it provides a congruent, suitable explanation of the events without any obvious loopholes, (b) the experimental realism of the design (ensuring that the subjects' attention is engaged and the events have a compelling quality) and (c) the apparent credibility of the investigator. These criteria having been met there is no particular reason for the subject to think that things are not what they

*A heuristic is a judgemental strategy used in an inferential task. The availability heuristic is in use when a person selects an event or object as causal on the basis of its accessibility from perception, memory, or imagination (Tversky & Kahneman, 1973, in Nisbett & Ross, 1980)
seem. Schutz and Luckmann (1973) contend that in understanding social life we always arbitrarily terminate explication and our solutions are necessarily partial.

Our stock of knowledge and its correlative schemata of typification results from the discontinuance of processes of explication, and exhibits the sedimentation of past situational problematics.

(p.13)

We arbitrarily discontinue our explications because there is no natural, necessary place within the explication to stop. Explication is endless, but our time and purposes are not: "We can say that our natural attitude of daily life is pervasively determined by a pragmatic motive" (p.6). "Pragmatic" is here read as being oriented towards the problem at hand, whether or not that problem would be classified as pragmatic. For the experimental subject, as for us all, "the situation needs to be determined only insofar as this is necessary for mastering it" (p.115).

Schutz and Luckmann do not deal with mastery and pragmatism as components of a cultural ideology. One wonders if other cultural ideologies facilitate a more reflective approach. McClelland's (1968; 1975) work on "rule books" of a society is important in this regard. Rule books are the cultural documents whose reading makes clear the cognitive systems which the members of a culture are supposed to share (1975, p.125).
His best known work along these lines was an analysis of children's stories and the longitudinal relationship of story themes to social behaviour. While German stories encourage children to be straight-forward and to gain strength by facing reality head on, Indian literature is full of the moral that apparent humility is a powerful strategy, and that things are never what they appear to be (1975). Coincidentally, the story used to illustrate the idea of multiple perspectives in the molar condition instruction, *Three Blind Men and the Elephant*, is Indian. Theoretically East Indians might be more shrewd than North Americans in analyzing an enlightenment effect manipulation. However, as Brickman (1978) has written, following Barnum, "people can easily be engrossed in a situation by playing on their suspicions as by playing on their credulity" (p.8). Alertness to the possibility of alternate meanings provides no guarantees in the pursuit of truth. But, alas, nothing does.

Even where awareness of alternate meanings exists, there can be no formalized set of rules to inform one of how to decide between one meaning and another. This is impossible even within a science. Quite divergent views of fundamental processes exist in all sciences.

The literature of a science consists largely of a critical discussion of alternative views (Popper, 1972;
Lakatos, 1970), though during a specific time a particular view may have achieved ascendancy.

Silverman (1975) has discussed the impossibility of devising a formalized set of rules for any activity, social or otherwise. For how are we to know that we are following the rules correctly? Wittgenstein (1970, in Silverman, 1975) believed that the ambiguity of formalized rules extended even to mathematics:

But can it be seen from a rule what circumstances logically exclude a mistake in the employment of rules of calculation? What use is a rule to us here? Mightn't we (in turn) go wrong in applying it?


Both Wittgenstein's and Silverman's answer echo Schutz and Luckmann's (1973) solution: our rules tell us what to do in normal circumstances, i.e. what we need to know to normally master the situation, what common-sense tells us to do. (p.55). Common-sense, however, is only the ordinary consensus of opinion, the taken-for-granted (Silverman, 1975, p.64) ways of understanding that persons within a community give to one another in various ways.

Not only is common-sense notoriously faulty (the earth is flat and the centre of the solar system): and tied to local norms of behaviour, but within a community there may be many contradictory common-sense
maxims. Tessor (1978) has reviewed a number of these (absence makes the heart grow fonder; out of sight, out of mind; birds of a feather flock together; opposites attract). Navigating the morass of self-evident truths can be a difficult task at best. Tessor's argument is that we focus on a particular maxim because of salience, a la Taylor and Fiske (1978), and then become more confident of its explanatory power as we continue to process it (think with it) drawing in more and more confirming examples to support our position. The probability of processing data through another schema (point of view) declines dramatically as processing of the earlier schema continues. Nisbett and Ross (1980) report a similar phenomenon in which initial impressions are "validated" and strengthened (p. ).

Now let us apply this line of reasoning to the situation of the student-experimenters in the first experiment and to Gergen's enlightenment hypothesis. These subjects arrived at a credible appearing experimental setting and, whatever their initial suspicions, increasingly focused their attention on one aspect, the probable actions of the teacher. They discussed the teachers' behaviour in Milgram's (1964) experiment (processed the schema that the teacher was the object of study). This implied definition of the situation, with its theme (Schutz, 1973) of teacher-as-object, captured their attention in a focus-of-attention
effect (Taylor & Fiske, 1978). They were presented with an ostensible task of some difficulty, i.e., mastering the role of legitimate authority and persuading the teacher to go on in the face of the teacher's resistance. There were many distracting technical details to be assimilated. It has been demonstrated in the third study that the distraction of a task that focuses attention on particular aspects of a situation can effectively preclude a more global analysis of the situation. As Schutz (1973) argues, the individual works to determine the situation only so far as is needed to master it (p.115).

The situation took shape for the student-experimenters on both the intellectual level (as it was explained to them and they were required to reflect their understanding to the investigator) and the structural/behavioural level (as they had to imagine performing tasks, a date for the second phase was set, etc.). From the student-experimenters' perspective a notable aspect of the situation was that a great deal of effort was directed towards deceiving the teacher and they themselves had to perform competently to maintain that deception thus ensuring that the student-experimenters would take their role seriously as had the teachers in Milgram's (1964) study (Brickman, 1978).

Brickman has argued that the central methodological problem of social psychology is the issue of what it means to people to know that they are subjects in an experiment
Suspicion, he says, is an integral part of realism inside both the experimental reality and the mundane reality of ordinary everyday life. It could be argued that the process of clearing up suspicions increases the reality of any situation. Forcing our subjects to make sense (our sense) of ambiguous situations commits them to their solutions and "if the experiment is done properly, subjects will ordinarily have no better explanation for what is happening than the explanation the experimenter gives them" (Brickman, 1978, p.8).

The social psychology of the first experiment mimicked that of a "sting" in which a person is conned while believing that he or she is in fact conning someone else.

When the student-experimenters entered the second phase of the experiment, where they had to enact the role of the experimenter, they were again deluged with the production aspect of the experiment. Their perspective was from inside the production of an experimental reality. So far as they could see, they were helping to produce the illusion which would engulf the teacher. Again their attention was focused on minute aspects of the situation, i.e., how to technically conduct the experiment, what to attend to in order to satisfy experimental criteria (the teacher must unequivically say "no" three times on any one button), what to say to make it believable to the
teacher that the learner was strapped down and couldn't leave, etc.). Performance anxiety was induced by making the success of the experiment encumbent upon the student-experimenters' attention to and enactment of these myriad details.

Initially the role of the experimenter would have seemed unreal. Brickman (1978) writes of roles:

The point is that all roles, in a game, in an experiment, or in the outside world, are unreal at first and become progressively, ineluctable more real through our own behaviour and other people's responses

(p.9)

At first one does not feel, for example, really married or really a professor. As we continue to act out the role, and experience other's responses as congruent to our expectations of the role, it becomes real. Within our experimental situation, shortlived as it was (30 minutes), the teachers' responses of distress, anger, pleading, treating the student-experimenter as an authority probably created a great deal of the reality.

Brickman (1978) has outlined two processes whose completion contribute to the attribution of reality to a situation. External correspondence is the experience that one's actions are producing consequences in the world appropriate to and congruent with the actions. For example, the student-experimenters insisted that the
teachers continue shocking the learner and the teachers expressed distress, dismay and anger, not hilarity. The student-experimenters expected this response as normal, given the circumstances.

Internal correspondence, the other process, is the experience that one's own feelings are appropriate to the events that are happening. Initially, in the enactment of a role, this correspondence is apt to be low. We don't know how an experimenter, for example, feels while enacting the experimenter role. For most of the student-experimenters this correspondence increased as the experiment continued. They felt distressed, appropriately, at causing someone else distress. Their role, however, did not allow them to express this distress outwardly, thus placing them in a dissonant situation in which they had to feel one way and act another. Many of the student-experimenters mentioned this conflict. They said they felt concern for the teacher but couldn't let her or him know it. To handle the internal conflict the student-experimenters "detached" themselves. They reported that they had previously had no idea of the difficulties that authorities faced in enacting their roles.

An important point of Brickman's thesis is that agents (e.g. experimenters) who seek to entrap others in a role (e.g. teacher) may themselves become entrapped in their
own role. The common-sense analysis of subject-object relations directs our attention to the ostensible "object" of entrapment (teacher in the present case) and obscures the effects of the process on the subject. In the third, multiple perspective, experiment the molar condition observers were given, linguistically, a perspective from which both teacher and student-experimenter could be considered equivalently.

Zimbardo's (1971) prison simulation study provides a striking example of the entrapment of the experimenter. Facing a possible "prison break" hypothetically led by a volunteer who had been released from the study, Zimbardo recounts how his own definition of the situation evolved from "simulation study" to "real prison";

I was sitting there all alone, waiting for the intruders to break in so that we could spring our Machiavellian counter-plot. Instead, who should happen along but one of my colleagues, a hard-headed experimental psychologist who, having learned that we were doing an experiment, came to see what was going on. I described only briefly what we were up to because I was anxious to get rid of him, since I thought the intrusion would erupt at any moment. He then asked me a very simple question: "Say, what's the independent variable in this study?" To my surprise, I got really angry at him. Here I had a prison break on my hands, the security of my men and the stability of my prison was at stake and I have to contend with this bleeding-heart, liberal, academic, effete dingdong whose only concern was for a ridiculous thing like an independent variable. The next thing he'd be asking me about was rehabilitation programs, the dummy! It wasn't until some time later that I realized how far into the experiment I was at that point.

(p.10)

Zimbardo's experience (and honesty, for which all researchers into the human condition can be deeply grateful) is very
illuminating.

In Gergen's (1973) terms should not Zimbardo's "sophistication as to psychological principles" have liberated him "from their behavioural implications" (p. 313)? If it is so that "knowledge increases alternatives to action and previous patterns of behaviour are modified or dissolved" (p. 313), then what happened? The answer to this question brings us full circle back to the question of the elusive enlightenment effect.

It is conceivable that some writers might argue that Zimbardo's actions, and those of the student-experimenters (the study reported here) demonstrates that they were not "sophisticated as to psychological principles". This argument would only beg the question and raise the spectre of the old competency versus performance distinction. The student-experimenters were able to discuss the dynamics of obedience intelligently. Zimbardo has demonstrated his competence as a social psychological thinker for years and more prolifically than most imagined critics. In simplest terms, and perhaps to no one's surprise, intellectual understanding does not easily and isomorphically transfer to behaviour. Competence does not guarantee performance, Everyone may grant this. But why? Or, more exactly, how? If we analyze the problem within the context of a failure (of an enlightenment effect, for example) then we are left with a pessimistic view of
the relationship between our cognition and behaviour. However, if we view cognition as yet another type of behaviour (albeit covert) then we can reframe the problem as one of competition between behaviours with unknown and varying probabilities. The assignment of those probabilities depends not only on the strength of those behaviours (or here, schemas) within the individual (and therefore on the individual's history) but coincidentally on the structure of the experience in which the behaviour is to be manifested, i.e. on the context of the situation and the competitive power of various situational definitions. What is most real for the individual within the situation will probably have a competitive edge in determining behaviour, be it cognitive or muscular.

Brickman (1978) has suggested that experimental social psychology's "categories of internal and external validity be supplemented in another way. We need terms to represent the components that determine whether an experience is seen as real or not, to represent whether an experiment has phenomenological validity (my emphasis) or not" (p.22). Brickman's introduction of the concept of phenomenological validity gives us a needed entrée into understanding why prior intellectual understanding may be less than robust in effecting congruent actions.
Phenomenological validity is to be distinguished from inferential validity by several criteria. Inferential validity is the sort of truth typically sought by researchers when designing and conducting experiments. To satisfy the criteria of inferential validity (a) outcomes must be unambiguous, (b) evidence is provided by calculation, (c) the focus is on uniformity, and (d) it is typified by experiments (p. 23). Within phenomenological validity however (a) outcomes must be meaningful, (b) evidence is provided by involvement, (c) focus is on diversity, and (d) it is typified by games (p. 23).

Social psychologists strive to bring rational order to the flux of social phenomena by bringing these phenomena within the scope of inferential validity. Unfortunately there is scant evidence that life is lived, i.e., is experienced as valid, by the criteria of inferential validity. In fact insistence that events in one's life meet the criteria of inferential validity characterizes a neurotic style (Shapiro, 1965) incompatible with the nature of relationships and predictive of a host of stress-related syndromes.

Concomitantly, attempts to lead life entirely by the criteria of phenomenological validity ("it just feels right") are equally predictive of difficulties and characterize as well a neurotic style. In Brickman's words "retaining a child's dedication to internal
correspondence is likely to make a person either self-actualized - or hospitalized" (p.18).

Social psychologists are not being advised to abandon inferential validity in a leap from Apollonian rationality to Dionysian ecstasy in their understanding of social phenomena, but only to recognize that social phenomena, when they matter to people, are characterized by the criteria of phenomenological validity. The "misbehaviour of humans" to paraphrase Breland and Breland (19) that we notice in our attribution experiments (that subjects make "outrageous" assumptions) reflects our over-reliance on the criteria of inferential validity at the expense of accommodating, theoretically and methodologically, the requirements of phenomenological validity.

In terms of an enlightenment effect, intellectual knowledge must be integrated within both systems of validity. This reasoning brings us back to Kintch's discussion of semantic and episodic memory. It would appear that lectures and articles about social psychological phenomena whose presentation is based exclusively on inferential validity are perhaps encoded primarily within semantic memory and therefore most easily retrievable for strictly semantic tasks. If we want transfer to behaviour then we probably need to simultaneously encode information within episodic memory. We cannot pretend to know how to efficiently do this, but the research we are currently
planning will explore this hypothesis. Our students probably best remember accounts of research that meet the requirements of phenomenological validity and are therefore encoded within episodic memory.

From Bickman's (1978) arguments games meet these criteria and "should be a natural concern for social psychology as science, as history, and as a vehicle for personal growth" (p.28). He envisions potential games that would engage people's attention focus on social psychological concepts, and make possible the observation of "fundamental patterns in their own or other people's behavior" (p.29). While experiments are considered faulty if more than one outcome is possible, the concept of games "conveys the idea of an enterprise in which a variety of outcomes are possible and reasonable" (p.28). The involvement possible in games brings them closer to the real world concerns of our subjects.

Games may be thought of as relatively safe environments in which people can have access to experiences that would otherwise be unaccessible to them (sometimes traumatic, sometimes ecstatic) and can observe how they and other people handle these experiences

(p.29)

Education that employes the use of games as both research and learning tools would conceivably provide the experience necessary to train individuals to "jump out of the system", Hofstader's (1979; see p.66 of this work) sine qua non of intelligent behaviour. Fines and Verrier
(1976, in Brickman, 1980, p.29) write of the power of educational drama/games in integrating childrens' understanding of both ideas and emotions. As currently taught, much of social psychology apparently leaves our students feeling that they would not have obeyed, conformed, or failed to help. The phenomenological validity of these situations is simply not conveyed in ways that would be subsequently behaviourally useful. As many of our student-experimenters conceded "I had no idea". People who have no idea of what social psychologists are phenomenologically "really" talking about may well be able to competently pass exams on the topic. They cannot be expected to be enlightened.
Ethical Issues

Now we turn our attention to the issue of ethical concerns about experiments in which subjects are deceived, stressed, and forced to find out that they are capable of behaving in a socially disapproved fashion. At this date the literature on the topic is extensive and remains controversial. The American Psychological Association (1973) was moved, primarily by the controversy surrounding Milgram's work on obedience, to establish ethical guidelines to be followed in research with human participants. While the APA guidelines still allow the use of deception and induction of stress if certain restrictions protective of the subject are carefully employed, it is common, if not official, practice in university psychology departments to exclude any research in which deception of the sort used by Milgram, or in the first study reported here, is considered. Probably the most common question asked of the current investigator at conferences and lectures where she has discussed her work is "how did you get that by the ethics committee?".

What are we to make of this? The ostensible answer would be that social psychologists have come of age and passed a landmark in their collective moral development. This answer, while pretty and perhaps satisfying to the liberal sentiments of social psychologists requires a deeper look. For isn't it curious that the uproar was elicited by an experimental
procedure that was itself a landmark in the careful handling of the well-being of subjects. Prior to Milgram's work no one had considered so carefully and acted so prophylactically of the residual effects on subjects.

Following Milgram's obedience studies the focus of ethical attention was primarily on the use of deception and alternatives to deception such as role-playing (Mixon, 1972, 1974; Kelman, 1972; Greenberg, 1967; Hamilton 1974 in Geller, 1978). Social psychologists seemed increasingly concerned that their reputation was "in some ways similar to that of the con artist" (Geller, 1978, p.220). To a science whose current literature appears dedicated to what Moscovici (1972) has called the "psychology of the nice person" the comparison would be anathema.

The battle over role-playing versus deception is still pitched and the reader is directed to Geller (1978) for the most recent review and experimental work in this area. Geller makes an extremely useful distinction between the methodological issue of deception versus role-playing and the ethical issue. If role-playing were methodologically sound for the investigation of all types of social phenomena its critics would probably have little to say. Deception experiments are difficult to carry out and an alternative method would be appreciated. That said, let's turn to the ethical issue and its origins.
Bickman and Zarantonello (1978) conducted a study in which deception and outcome could be independently assessed. Subjects were asked to rate the harmfulness of obedience-type conditions in a 2x2 design incorporating deception or no deception, and high or low obedience (p.83). The results show no effects associated with deception. However, subjects in the high obedience conditions "rated the experiment as significantly more harmful to the volunteers (teachers) than subjects in the low obedience conditions" (p.83). However, this harm was not related to stress since disobedient teachers were seen as suffering more distress than obedient teachers.

Bickman and Zarantonello conclude that "if most of Milgram's subjects had disobeyed, his experiment would have not received as much condemnation" (p.84). Even though the distress of the disobedient subjects would have been perceived to be higher (as has been experimentally demonstrated, Geller, 1978; Milgram, 1979). Parcelling out deception and stress as the primary noxious factors we are left with the "unflattering portrayal of human nature discovered using deceptive methodologies" (p.85) and exposing our subjects to this portrayal within themselves.

These findings reflect the earlier expressed sentiments of M. Erikson (1968):

That (Milgram's) pioneer work in this field is attacked as being unethical, unjustifiable, uninformative, or any other derogative dismissal is to be
expected, simply because people like to shut their eyes to undesirable behaviour.

(p.278)

In a world drama punctuated by My Lai, Jonestown, the gas chambers of Nazi Germany and countless other horrors, just how moral is it for several generations of well-educated, affluent social psychologists supported by tax-payers money to retreat into the safety of paper and pencil measures that are considered ethically sanitary? I believe it is time for social psychologists to ask themselves some harsher ethical questions than is it right to use deception in experiments.

The reader is asked to consider the following thought experiment. Imagine yourself in a situation outside the bounds of your normally safe, well-regulated middle-class environment where the definition of the situation may change at any moment and you and your loved ones may be at the mercy of forces that pressure the people around you into obedience and compliance. You have one choice in the matter. You can choose to be among people whose ethical preferences have prevented them from ever having conducted or participated in experiments like the first one reported here or Milgram's. Or, you could choose to be among people who have experienced these things first hand. Who have some idea of their limits. Who know their own and other's susceptibilities. If you
would choose the former then you affirm faith in the enlightenment effect, that these people's intellectual understanding will protect you. As for me, I would rather be among people typified by the woman student-experimenter who said:

You always think it's them, like the Nazis, that it's just the way they are and then you find out that it's you too, that in the right circumstances maybe it's really all of us.
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The study of obedience was initiated by Stanley Milgram in 1963 at Yale University. Milgram developed a laboratory technique which provided a systematic way to measure obedience. The experiment worked like this: if you were a subject in the study, you read an ad in the newspaper or received one in the mail, asking for volunteers for an educational experiment. The job would take about an hour. So you make an appointment and go to an old Romanesque stone structure on High Street with the imposing name of The Yale Interaction Laboratory. It looks something like a broadcasting studio. Inside you meet a young, crew-cut man in a laboratory coat who says he is Jack Williams, the experimenter. There is another citizen who is fiftyish with an Irish face, an accountant, a little overweight, and very mild and harmless-looking. This other citizen seems nervous and plays with his hat while the two of you sit and listen to Jack Williams explain the experiment.

"It is about learning," says Jack Williams in a quiet, knowledgeable way. "Science does not know much about the conditions under which people learn and this experiment is to find out about negative reinforcement. Negative reinforcement is getting punished when you do something wrong, as opposed to positive reinforcement, which is getting rewarded when you do something right. The negative reinforcement in this case is electric shock."

Then Jack Williams takes two pieces of paper, puts them in a hat, and shakes them. One piece of paper is supposed to say "teacher" and the other, "learner." He asks you each to draw one to see which you will be. The mild-looking accountant draws one, holds it close to his vest, looks at it and says "learner." You look at yours. It says "teacher." You do not know that the drawing is rigged and both slips say "teacher." The experimenter beckons to the mild-mannered "learner."

"Want to step right in here and have a seat, please?" He says, "you can leave your coat on the back of that chair . . . roll up your right sleeve please. Now what I want to do is strap down your arms to avoid excessive movement on your part during the experiment. This electrode is connected to the shock generator in the
next room.

"And this electrode paste" he says, squeezing some stuff out of a plastic bottle and putting it on the man's arms, "is to provide a good contact and to avoid a blister or burn. Are there any questions now, before we go into the next room?"

You don't have any, but the learner asks how dangerous the shocks are.

Williams, the experimenter, shakes his head casually. "On no," he says. "Although they may be painful, they're not dangerous. Anything else?"

Nothing else. And so you play the game. The game is for you to read a series of word pairs: for example, blue-girl, nice-day, fat-neck. When you finish the list, you read just the first word in each pair and then a multiple-choice list of four other words, including the second word of the pair. The learner, from his remote, strapped-in position, pushes one of four switches to indicate which of the four answers he thinks is the right one. If he gets it wrong, you push a switch that buzzes and gives him an electric shock. And then you go to the next word. You start with 15 volts and increase the number of volts by 15 for each wrong answer. The control board goes from 15 volts on one end to 450 volts on the other. If, at any point, you hesitate, Mr. Williams tells you to go on. If you still hesitate, he tells you again.

Except for some terrifying details, which will be explained in a moment, this is the experiment. The object is to find the shock level at which you disobey the experimenter and refuse to pull the switch.

When Stanley Milgram first wrote this script, he took it to fourteen Yale psychology majors and asked them what they thought would happen. He put it this way: out of one hundred persons in the teacher's predicament, how would their break-off points be distributed along the 15-to-450 volt scale? They thought a few would break off very early, most would quit someplace in the middle and a few would go all the way to the end. The highest estimate of the number who would go all the way to the end was three. Milgram then polled some of his fellow scholars in the psychology department. They agreed that very few would go to the end. Milgram thought so too.
In his pilot experiments, Milgram used Yale students as subjects. Each of them pushed the shock switches, one by one, all the way to the end of the board.

So he rewrote the script to include some protests from the learner. At first, they were mild, gentlemanly, Yale protests, but, "it didn't seem to have as much effect as I thought it would or should," Milgram recalls. "So we had more violent protestation on the part of the person getting the shock. All of the time, of course, what we were trying to do was not to create a macabre situation, but simply to generate disobedience. And that was one of the first findings. This was not a technical deficiency of the experiment, that we didn't get disobedience. It really was the first finding: that obedience would be much greater than we had assumed it would be and disobedience would be much more difficult than we had assumed."

As it turned out, the situation did become rather macabre. The only meaningful way to generate disobedience was to have the learner protest with great anguish, noise, and vehemence. The protests were tape-recorded (so that all the teachers ordinarily would hear the same sounds and nuances). The protests started with a grunt at 75 volts; proceeded through a, "Hey, that really hurts," at 125 volts; got desperate with, "I can't stand the pain--don't do that," at 180 volts; reached complaints of heart trouble at 195; an agonized scream at 285; a refusal to answer at 315; and only heart-rending, ominous silence after that.

Still, sixty-five percent of the subjects—everyday, ordinary people like you and me—obediently kept pushing those levers all the way up to 450 volts.

For more than seven years now Stanley Milgram has been trying to figure out what makes ordinary citizens so obedient. The most obvious answer—that people are mean, nasty, and brutish—won't do. The subjects who gave the shocks to the learner to the end of the board did not enjoy it. They groaned, protested, fidgeted, argued, and in some cases were seized by fits of nervous, agitated giggling.

"They even try to get out of it," says Milgram, "but they are somehow engaged in something from which they cannot liberate themselves. They are locked into a structure, and they do not have the skills or inner resources to disengage themselves."
Milgram, because he mistakenly has assumed that he would have trouble getting people to obey the orders to shock the learner, went to a lot of trouble to create a realistic situation.

There was crew-cut Jack Williams and his laboratory coat. Then there were the other appurtenances of the laboratory which emitted the silent message that things were being performed here in the name of science, and were therefore great and good.

When you consider the seeming authenticity of the situation, you can appreciate the agony some of the subjects went through. It was pure conflict. As Milgram explains to his students, "when a parent says to his child, 'don't strike old ladies,' you are learning two things: the content, and also, to obey authority. This experiment creates conflicts between the two elements."
APPENDIX II

Answer each of the questions, one at a time, finishing each in sequence before going on to the next.

1. From the teacher's point of view, what was happening to the learner? Rate any effects on the learner on a scale of 1 to 10.

2. Why did the teacher go on? Do you see it as a matter of personality or the situation he found himself in (or both)? What role did the experimenter play in the teacher going on?

3. From the experimenter's point of view, what was happening to the teacher? Rate any effects on the teacher on a scale of 1 to 10.

4. Why did the experimenter go on? What was controlling his/her behaviour?

5. Do you think the teacher learned anything from being in this experiment? If so, what?

6. Do you think the experimenter learned anything from being in this experiment? If so, what?

7. Do you see any parallels between the teacher's behaviour towards the learner and the experimenter's behaviour towards the teacher. If so, please explain.
APPENDIX III

The subjects in this experiment were undergraduates. They volunteered to participate in an experiment that was explained to them as essentially a replication of Milgram's famous obedience to authority study. The volunteers were thoroughly familiarized with Milgram's work. They were then told that in the replication they would be playing the role of experimenter and that there would be a learner-confederate (just as there had been in Milgram's study). Their job, as experimenter, would be to urge a naive teacher-subject to continue shocking the learner-confederate. Of course, the learner-confederate wasn't getting shocked and the student-experimenters knew this.

The reasons given for doing a replication of this well-known study were:

(1) "to find out if persons who were not in fact legitimate authorities (i.e., undergraduate volunteers) could get the same level of obedience as the original, professional researcher had;" and

(2) "because we believe that we have no real scientific understanding of why people are willing to distress others for the sake of an important end, like scientific understanding."

The student experimenters were reminded that the teachers in Milgram's study had not just blithely shocked the learner, but had themselves become extremely distressed in response to the supposedly real and severe distress of the learner. It was expected that the replication would elicit the same high level of distress among the teacher-subjects: that they would become upset, perspire, feel panic, and perhaps cry. The student-experimenters were advised that they might have to call upon all their resources to insist that the distraught teacher-subject continue to shock the loudly protesting, crying learner-confederate. The student-experimenters were assured that, though this might be difficult, they should remember that we had already done a pilot study and that the teacher-subjects suffered no long-term effects from either the distress they experienced in the experiment or from having to face the fact that ultimately, they had been willing to distress another person (a) for the sake of an experiment; and (b) in obedience to the researcher.
The student-experimenters were assured that the investigator would be watching from a one-way observation window and would stop the experiment if she thought the teacher-subject was becoming distressed. The student-experimenter did not have to assume responsibility for the welfare of the teacher-subject. Total responsibility was assumed by the investigator. All the student-experimenter needed to do was consistently insist that the teacher-subject shock the learner-confederate.

The day of the actual experiment, the investigator, learner-confederate, and student-experimenter got together thirty minutes before the teacher was due to arrive. At this time the student-experimenter learned all the technical details (i.e., how to explain the "learning" experiment, how to explain the use of the "shock board," etc.) This was a practice period for the student-experimenter so that she or he would at least appear to be familiar with the surroundings and competent to carry out the experiment. Teachers could not, after all, be expected to obey experimenters who didn't know how to explain an experiment. The student-experimenter was given as long as was necessary to feel comfortable (never more than 60 minutes). If the teacher-subject arrived before the student-experimenter was ready, the former was asked to wait and given an apology for the delay. When everything was ready to go, the investigator went into the observation room and the learner-confederate went out a back door. The latter walked around the building, came in the front door (apparently arriving for an experiment), and joined the teacher-subject, striking up a conversation ("Are you here for the experiment too?", etc.).

The student-experimenter waited a few minutes and then went out to get the "two" subjects, pretending of course not to know the learner-confederate. All three came back to the experimental room and the experiment began.

There was a high level of consistency across all sessions of the experiment. The learner-confederate did a compelling job of portraying mounting distress. At the low levels of shock, the learner-confederate made small noises, like a quiet "ouch!" These built up to louder gasps, crying out, pleading to be let out of the experiment (remember, the learner is supposedly strapped down), and screaming and pounding. The teacher-subjects likewise became distressed. Their distress tended to follow the intensity of the learner-confederate's distress. The teacher-subjects moved from slight giggling; to
expressing concern about the learner-confederate ("Are you sure this is okay?"); to strongly questioning the experiment ("I'm not sure this is right"); to getting emotionally upset, and fairly often, complaining of a head or stomach ache. By the time the last third of the thirty shock levels were reached, the teacher-subjects were very upset and repeatedly implored the student-experimenter to stop the experiment.

Correspondingly, the student-experimenters found it emotionally difficult to continue insisting that the teacher-subjects shock the learner-confederate, though they were able to carry out their instructions to do so. Two student-experimenters halted the experiment to ask the investigator if the experiment should continue. The investigator assured them that the teacher had not reached an intolerable level of distress and that they should continue with the experiment. They did so, though somewhat reluctantly.

When the experiment was over, the student-experimenters debriefed the teacher, impressing upon them that most people did continue to the 450-volt level and that they shouldn't see their own behaviour in doing so as deviant. Both the student-experimenters and the teacher-subjects were then interviewed separately to gain some insight into their mutual perceptions of the obedience situation.
APPENDIX IV

You will be reading an account/watching a video tape of a social episode: in this case an account of what went on in an experiment. As you may be aware, it is often possible to view a social interaction from several perspectives. Each person may interpret what is going on from her or his own set of assumptions and not take into account that they have only a part of a larger reality. The classic story of the three blind men and the elephant illustrates this situation. Each of the blind men grabbed hold of a particular part of the elephant. Each became sure that his "part" was representative of the whole. They each hotly denied the accuracy of the others' account. In a social interaction, a person may believe that he or she is carrying out a role, fulfilling a function, or otherwise behaving in a fashion that has a particular meaning. Later, the person may find that his or her behaviour had a very different meaning. Erving Goffman has referred to this as the "drama" aspect of social interaction. In our normal, everyday dramas there may or may not be "directors": persons whose intentions are shaping or influencing the meaning of the interaction. In a social psychology experiment there are definitely directors. The investigators strive to set up an experimental situation in which there is a definite "meaning." In experiments involving deception, this true meaning is kept a secret from the subject. Thus, the subject has one set of assumptions about what is true in the situation and the investigator may have another. In such a well directed "drama" as an experiment, for which a script was carefully written, the investigator creates the meaning. We want you to read the account/watch the video tape of the experiment and try to imagine what the meaning of the experiment was from the point of view of the investigator (i.e., what question the investigator was really interested in). You will be given all the details of the experiment, the design features, who did what to whom, how everyone reacted--but you are to come up with an interpretation of why this drama was staged. What are the possibilities of what the investigator is "seeing"? Let your reading/viewing be directed by the idea that "things are not always what they seem," and see what you come up with.
APPENDIX V

You will be reading an account/watching a video tape of a social episode: in this case an account of what went on in an experiment. As you are probably aware, any social episode (experience) is made up of dozens and dozens of minute bits of behaviour. You will be given the details of what went on in an experiment (who did what to whom, how everyone reacted) and your task will be to remember, at the end of your viewing/reading, as many instances of concrete behaviour as you can. By instances of concrete behaviour we mean what was said (in as much detail as possible), gestures, sequences of gestures. You can either string these together, as they happened, or you can memorize unconnected bits of behaviour. Which strategy you use is up to you--just try to come up with as many instances as you can. You will be given three minutes to report, verbally, what you remember after your viewing/reading. Then the interviewer will discuss the procedure and the experiment with you. If you have any questions about what is being asked of you, the interviewer will be happy to answer your questions and/or provide you with examples of concrete behaviours.
APPENDIX VI

Below are two columns of events. One of them describes events directed towards or experienced by the teacher. The other describes events that were directed towards or experienced by the experimenter. The teacher's list is more or less arranged in order of the happening of the events. The experimenter's list has been mixed up. Please match the experiences of the teacher with the ones of the experimenter that most correspond. By "correspond" is meant the degree to which an experience of the teacher matches or seems in some degree similar to an experience of the experimenter. Match all items as well as you can on the sheet provided. Put the letter beside the number. Then rate the strength of the match or relationship on a scale of one (no relationship) to seven (identical relationship).

<table>
<thead>
<tr>
<th>Events directed towards or experienced by teacher</th>
<th>Events directed towards or experienced by experimenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Teacher assured that experiment is scientifically important.</td>
<td>a. Teacher expresses great distress, yells and cries.</td>
</tr>
<tr>
<td>2. Teacher given a shock to ensure that the teacher understands the shocks will be painful for the learner.</td>
<td>b. Investigator seen as legitimate authority by the experimenter.</td>
</tr>
<tr>
<td>3. Learner expresses great distress, yells out, and cries.</td>
<td>c. Experimenter told that the teacher will be okay in the long run.</td>
</tr>
<tr>
<td>4. Learner pleads with the teacher to stop.</td>
<td>d. Experimenter told that (s)he is to carry experiment out to the end. Not given option to terminate. Decision to terminate up to investigator.</td>
</tr>
<tr>
<td>5. Teacher told that the learner will suffer no permanent damage.</td>
<td>e. Teacher pleads with the experimenter to stop.</td>
</tr>
<tr>
<td>6. Teacher told that (s)he must continue, that (s)he must finish.</td>
<td></td>
</tr>
</tbody>
</table>
7. Experimenter seen as legitimate authority by the teacher.

8. Teacher told that experimenter accepts full responsibility for the fate of the learner.

f. Experimenter told that teachers usually become quite distressed in order to ensure that the experimenter understands that the experience is painful for the teacher.

g. Experimenter assured that experiment is scientifically important.

h. Experimenter told that investigator accepts full responsibility for fate of teacher.
## TABLE I

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreed to participate</td>
<td>26</td>
</tr>
<tr>
<td>Refused</td>
<td>4</td>
</tr>
<tr>
<td>Later declined</td>
<td>2</td>
</tr>
<tr>
<td>Completed experiment</td>
<td>22</td>
</tr>
<tr>
<td>Stopped experiment</td>
<td>2</td>
</tr>
</tbody>
</table>

### Participants in Experiment I
| Table II |
|-----------------|---|
| Distress of learner from teacher's point of view | 9.68 |
| Distress of teacher from experimenter's point of view | 8.95 |

Means of Perceived Distress
### TABLE III

<table>
<thead>
<tr>
<th>Experimenters who wanted to stop</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimenters who did not want to stop</td>
<td>2</td>
</tr>
<tr>
<td>Experimenter who wanted to stop and did</td>
<td>1</td>
</tr>
</tbody>
</table>

Experimenters who wanted to Stop
TABLE IV

<table>
<thead>
<tr>
<th></th>
<th>Saw Parallel</th>
<th>Did Not</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real</td>
<td>4</td>
<td>41</td>
</tr>
<tr>
<td>Actors</td>
<td>29</td>
<td>16</td>
</tr>
</tbody>
</table>

Experiment II -- Chi-Square, $P < .001$
<table>
<thead>
<tr>
<th>Complete hypothesis</th>
<th>No hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molar</td>
<td>12</td>
</tr>
<tr>
<td>Molecular</td>
<td>1</td>
</tr>
</tbody>
</table>

(Fisher's Exact T, $P < .005$)

Experiment III, Fisher's Exact T