Readings in Social Psychology:
Classic and Canadian Contributions

edited by Brian Earn & Shelagh Towson

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Introduction

In writing the introduction to this book we thought that there were a number of questions we should answer. First, why a book of readings? The textbooks available for use in introductory and advanced social psychology courses do an excellent job in introducing students to the wide range of topics explored by social psychologists. Unfortunately the very breadth of material covered in these texts can prove to be a disadvantage. It occurred to us that while our students were learning a lot about the products of social psychological research, they were missing out on the sort of understanding of the research process which can only be gained by pausing occasionally from the headlong rush through the text to explore one of the field's classics in its original form. A one sentence description of Asch's conformity study, Milgram's obedience research or Sherif's intergroup hostility study cannot capture the ingenuity involved in experimental design, the genuine suspense which accompanies data collection and the analysis of results, or the excitement inherent in reaching expected or, in some cases, previously unimagined conclusions about the vagaries of human behaviour. Our own decision to pursue social psychology as a career was based on the exploration and analysis of just such classic experiments. We want to give both our own students and others the same opportunity to discover the depth and richness of social psychology, not only in its conclusions, but in the way these conclusions are reached.

A second question we should perhaps answer is, "Why a book of *Canadian* readings?" This idea comes out of a number of beliefs. First we believe that there is an especially large volume of high quality social psychological research being produced in Canada. Second, there are a number of topic areas in which the nature of Canadian society and historical developments have operated together to place Canada in the forefront of world research. Finally, we had a strong belief that the incidental learning that occurs while students read course material should be related as much as possible to their own culture. Since most of our major textbooks are written from an American perspective most of the incidental learning in these texts involves the United States. Thus, while reading about social psychology, students typically learn about such things as black-white race relations, U.S. presidential elections and a variety of

American historical examples. It is our hope that in learning about basic social psychological principles while reading the articles in this book you will also learn about things such as the ethnic composition of Canadian cities, the Canadian judicial system and federal elections.

People have also asked us which articles are classic and which are Canadian. This question comes about because most of the studies in this book were, in fact, done in Canada. Those that did not originate here were chosen either because a particular research area had not thrived in Canada or because we felt it was important for students to read at least some important non-Canadian contributions to the field in their original form. This decision led to the admittedly clumsy title for this collection. Since we did not have only Canadian articles we could not subtitle the book Canadian contributions. Does our title imply then that Canadian articles are not or cannot be classic? On the contrary, few, if any, of the articles in this book were chosen simply because they were done in Canada. Each represents an excellent contribution to the discipline and would be a likely candidate for a book of representative readings in social psychology regardless of the national origins of the authors or the research. Indeed, while many of these articles are already "classics", we are certain that a number of years from now many more of those included in this collection will also be deemed so.

Finally, it may be wondered why we have included interviews with social psychologists rather than letting the research speak for itself. This decision was based on two considerations. First our students have on occasion complained that they felt overwhelmed by long lists of research presented with little information regarding the original reasons for doing the research, or the larger context of which it was supposedly a part. The social psychologists we interviewed explain the reasons for their interest in particular areas and the historical context of that area. Second, we thought it important to ask these reseachers, living and working in Canada, whether and in what ways the Canadian context had influenced their choices of research topic and the development of social psychological research in general. We enjoyed their answers and trust that you will too.

Finally, this book may also be seen as a celebration of the coming of age of the study of social psychology in Canada. In 1973 when Dan Perlman and David Koulack put together a similar project it was very difficult for them to find representative articles for each of their sections. Our problem was quite the reverse. For almost every article chosen there were at least another two or three papers that might just as easily have

been included. A second interesting contrast to 1973 is that a first generation of social psychologists educated in Canada is handsomely represented in this volume. Dale Miller, Jim Olson, Ron Johnson and Don Dutton, among others, are graduates of social psychology programs at institutions such as the University of Waterloo, the University of Toronto and the University of Manitoba.

Our hope is that as you read this book you will get an idea both of the remarkable diversity of social psychological research—within Canada as well as outside it—and of how truly exciting the conduct of such research can be.

Acknowledgements

As in any other collaborative endeavor, there are a number of people who encouraged, helped or goaded us into action who ought to be thanked. First we would like to thank those of our contributors who responded to our request for guidance in choosing their most representative articles. A special thank you is also due those authors who agreed to give their time for an interview during which they shared with us many valuable insights that we believe significantly contribute to the overall quality of the book. A few people deserve special mention. Ken Dion and Dan Perlman were especially generous with their encouragement and helpful suggestions. John Adair wrote an excellent chapter and worked very good humouredly to a very tight deadline. Finally we would like to thank Don LePan of Broadview Press whose ceaseless prodding brought this project to a successful conclusion.

John Adair's article, which follows, illustrates both the joys and the drawbacks of trying to conduct scientific inquiry into social processes. Adair makes it vividly clear that researchers cannot ignore the fact that when one interacts with fellow human beings the research process itself becomes a social interaction with its own rules and expectations. In order to insure the validity of their results researchers must be aware of these factors and attempt to determine their impact on the research methods that they use. Adair documents the often subtle nature of some of these problems and concludes by giving us some hints for their solution.

Social Psychological Issues in Research

JOHN G. ADAIR

Research in social psychology is exciting. Because of the complexity of the scientific study of human thought and social behavior, it may be one of the severest tests of the applications of the scientific method and of the intellectual ingenuity of researchers. A host of complex social variables such as the dynamics of ongoing interactions between persons, the interplay of environmental factors with the rules of conduct internalized through years of socialization, and the changing norms and standards of society, introduce unique variables for the social psychologist to consider. Our subject matter is so dynamic that some (Gergen, 1978) have argued that the scientific study of social behavior can yield only a "snapshot" from one point in an everchanging cultural history. According to this view, the scientific conception of today may not long apply as society's values, concerns, and standards of conduct change. But if changing social norms add a variable to our study, most of us are nevertheless convinced that there is a high degree of behavioral lawfulness that will endure the test of time. We need not relegate our research efforts to a mere chronicle of social history.

Compounding the difficulties involved in the scientific studies of behavior, whether of fundamental processes or complex social phenomena, is the fact that any human research is, by definition, a social process. Every study involves an interaction between two persons: a researcher (whether it is an experimenter, interviewer, or observer) and a subject. As in any social situation, both persons are influenced by and responsive to one another. Yet, unlike objects of study in the natural sciences, human subjects have thoughts and feelings about experimental manipulations. Language is also unique to the study of human behavior. Subjects in psychological experiments, unlike those in physics, typically receive instructions from their experimenter. Except in the rarest of observational or otherwise nonreactive study, subjects know they are being experimented upon, and may respond differently, just as you might behave differently in front of a TV camera. In every study there is at least an implied presence of a researcher, whether or not the researcher socially interacts with the subject. These social influences may well enhance, reduce, or otherwise modify any data that are collected. In short, because the experiment is a social process there are social psychological principles governing this interaction that can be identified, and an understanding of the principles will help us to insure that the human behavior we observe is valid and

has the meaning we interpret it to have.

Fundamental Social Psychological Issues in Research

Psychologists have always had to concern themselves with reactive effects in human research. To Wilhelm Wundt, the father of experimental psychology, an understanding of subjects' thoughts and other active psychological processes was exceedingly important. As Kurt Danziger, the historian of psychology from York University has ably shown (1980), the goal of Wundt's research was to search for the psychological causality underlying accompanying behavioral processes which he experientally manipulated. E.B. Titchener, a chief proponent of Structuralism, cautioned against contamination by the inappropriate insertion of observers' thoughts and feelings (observer errors, as he called them) into classical introspective reports. With the shift to Behaviorism, and its emphasis on experimental methodology and external, objectively verifiable data, researchers became less concerned with social and subjective factors in the research process. However, it was not long before the reactive effects of human subjects again became a concern in experiments.

The Hawthorne experiments (Roethlisberger & Dickson, 1939), conducted in an industrial plant in the late 1920's, were one of the first documented instances of social factors contaminating experimental results. (Incidentally, this study also became somewhat of a classic for having launched the human relations movement in industry.) The researchers wanted to see if changes in work conditions might improve the productivity of employees assembling electrical relays, and they set up rigorously controlled conditions to test these. They began by placing the workers in an experimental room away from their usual work bench. Manipulations consisted of a series of changes, such as shortened hours, a shortened work week, work breaks, company-provided food and drink and so on. Each change was added to those previously given and the workers' performance continued to improve. Because all manipulations had led to improved performance, the researchers decided to return the subjects to their original work conditions, without reduced hours or any of the other benefits. To their surprise, in spite of less favourable work conditions, subjects' productivity continued at their experimentally-elevated levels. The researchers then realized that they had to look for other explanations for this result than their manipulations. Clearly the subjects' knowledge that they were in an experiment, their understanding that the experiment was designed to improve their productivity, and the social consequences of quite different interactions between management and the experimental subject, among other factors, had all combined to lead to the unexpected maintenance of the performance gains.

In subsequent years, the artifactual effects of people's awareness that they were subjects in a psychological experiment came to be known as the "Hawthorne Effect". However, this knowledge was of little use to researchers unless they also knew the conditions under which such social psychological factors became a problem. It was not until the late 1950's that social psychologists began to systematically investigate the psychological experiment as a social setting. This research has led both to a better understanding of the research process, and to the development of procedures or techniques to control or assess the extent of the problems social factors introduce into experimental research.

Early Attempts to Deal with Social Factors in Research

The fundamental methodological concern is how one human being can scientifically and meaningfully study another, without the intrusion of complicating social factors. There are two major sources of bias or influences we must contend with. The first of these is the social nature of the research process. Experimentation is difficult, but even more so with subjects and experimenters engaged in dynamic interaction, unwittingly and unintentionally influencing one another. The second problem is the subject's reactivity, or subjective processing of the

research experience. This problem is more phenomenological, but largely arises from the social context of the experiment. Let us set the second source of bias aside until we have considered the social interactive problem.

Experimenter-Subject Interaction. Virtually any factor that might contribute to social interaction in the real world is apt to be a variable of concern in the laboratory. Although you may be aware of your own different reactions to persons with different attributes, it would be helpful to consider how these variations might contaminate laboratory experiments. Let us take, as an example, the interaction of gender of experimenter and subject (Rosenthal, 1967; Rumenik, Capasso & Hendrick, 1970). Rosenthal (1967) observed in several studies the experimenters' collection of basic biographical data from subjects during a brief 30-second pre-instruction period that set the basic interactional tone for the subsequent data collection. Rosenthal found striking gender differences: Female subjects evoked significantly more smiling behavior from their experimenters (70% of the experimenters smiled) than did male subjects (only 12% of the experimenters smiled); male experimenters took a significantly longer time to present stimuli to female subjects than to male subjects; female experimenters did not lean as close to male subjects as did male experimenters to other males; male experimenters were observed by judges and rated by subjects to be significantly more friendly than female experimenters. In short, although their tasks were the same, subjects interacting with male experimenters were simply not in the same experiment as those interacting with female experimenters. Rumenik et al., (1970) reported similar observations in a review of experimenter gender effects: on various tasks children consistently performed better for female experimenters, whereas for adult data the results, although less clear, suggest that all subjects (especially females) perform better for male experimenters.

Gender effects are but one example. Research has shown that black subjects were less inhibited and performed better on personality and attitude measures with black experimenters, whereas both black and white subjects gave more socially desirable responses to interviewers of the opposite race (Sattler, 1970). Experimenters who scored high on need for approval were found to smile more often at their subjects and to stand closer to their subjects than did experimenters low in need for approval (Rosenthal, 1967). Changes in the behavior of an experimenter over the course of a study pose even greater problems. Rosenthal (1967) reported that experimenters became faster in reading instructions, less tense, and yet more bored with increased experience and this in turn resulted in their later subjects' ratings of stimuli being significantly less positive than those of their earlier subjects. In short, because much information is typically withheld from subjects, the experimenter becomes a focal cue for influence within the interpersonal context of the psychological experiment.

The experimenter as a source of information. Experimenters serve as such a distinct cue that subtle variations in their behavior can even convey information about their hypothesis to otherwise uninformed subjects. Robert Rosenthal (1966) experimentally demonstrated this process, which he called the "experimenter expectancy effect", in a simple photograph rating task. Two groups of experimenters administered a set of ten photographs of persons to subjects who were to judge them on a 20-point scale of success-failure. Half of the experimenters were led to expect that their subjects would rate the pictures positively, that is, rate them on average about +5. The others were led to believe that their subjects would respond with ratings around −5. Actually, the photographs had been purposely selected from previous ratings to be neutral so that, when tested by experimenters reading identical instructions, subjects' ratings should not have been expected to differ. However, because the experimenters had unwittingly conveyed their hypotheses to their subjects, ratings obtained by the two sets of experimenters were found to be significantly different, solely as

a function of their expectations.

That sounds a little hokey, doesn't it – like ESP, or mental telepathy? Some years ago we conducted a study at the University of Manitoba (Adair & Epstein, 1968) to shed some light on the expectancy cue transmission process. Although somewhat dubious in our expectations that we would even duplicate the expectancy effect (hence you might say we had a reverse bias), we prepared a new set of neutral photographs for a two-staged investigation. First, half of our experimenters were led to expect positive and half negative ratings as they administered the new set of photographs to a series of subjects. Much to our surprise the data replicated the experimenter expectancy phenomenon.

In preparation for the second stage of the study, we had surreptitiously tape-recorded the voices of experimenters in the first experiment as they read the instructions to each of their subjects. We then used these tape recordings to present instructions to a new set of subjects. For this experiment we created a research room with a number of signs indicating to subjects that no experimenter would be present. The signs told them that they were merely to seat themselves at a table and to turn on a tape recorder that would give them full instructions. In short, we repeated our initial expectancy experiment by collecting data from subjects who experienced no experimenter, yet who received the same voice cues of the biasing experimenters from the first stage of the experiment. What we found, again quite surprisingly, was that the experimenter expectancy effect, the difference between the mean ratings obtained by the sets of experimenters with opposite expectations for their data, was just as strong (actually it was a bit stronger) in the physical absence of the experimenter as it had been with the live experimenters. Apparently the experimenter's voice contained sufficient differential emphasis on the success or failure portion of the instructions to convey these cues to subjects as a guide for their behavior. Several subsequent investigators (Duncan & Rosenthal, 1968; Duncan, Rosenberg & Finkelstein, 1969) have repeated these findings employing different stimuli and different methodologies. Replication of a somewhat intricate experiment or duplicating a finding by a different method is an exciting occurrence within social psychological research. It particularly enhances our confidence in our conclusions.

Although a fully developed theory is not available, there has been sufficient subsequent research into the process of experimenter expectancy effects to enable some rudimentary social psychological principles to be articulated. For example, the following appear to be optimum conditions for the emission of the experimenter expectancy effect:

- tasks or stimuli that are not highly structured, or are ambiguous (Shames & Adair, 1980; Adair, 1973; Weiss, 1969)
- experimenters who are prominent stimuli; i.e. dominant, older, or more professional (Rosenthal, 1966) or who verbally emphasize the appropriate directional response cues (Adair & Epstein, 1968; Duncan, Rosenberg & Finkelstein, 1969; Duncan & Rosenthal, 1968)
- subjects who are quite anxious to do well, and are high in evaluation apprehension (Minor, 1970)

The data are certainly convincing enough that researchers have had to become sensitive to these conditions and take appropriate precautions.

Ways to counter social interaction effects. The recognition of social factors inherent in the research process and knowledge that we have acquired enables researchers to consider strategies for addressing or removing these complicating features. One obvious strategy is to remove the physical presence of the experimenter. By automating the experiment through contemporary audio, video, and computer technology, we would certainly reduce many of the social interaction effects. However, most studies require the experimenter to be preseent to make important observations or to respond to the special needs of some subjects, or simply require the physical presence of another person. I am also certain that our behavior towards a machine would in many ways be

quite different from our behavior towards a human experimenter. Tape recorded instruction is a form of partial automation that retains most of the social qualities of experiments, yet effectively addresses experimenter expectancy effects and provides a constant set of instructions over a lengthy period of data collection.

Sensitized to potential biases, investigators should precisely specify the protocol to be followed and experimenters should be better trained to act in a uniform manner to all subjects. Smiling or making eye contact at a predetermined frequency may keep many of the interactional effects natural, yet constant, for a given experimenter. By sampling among multiple experimenters the principal investigator can also insure greater generality of his/her findings. An obvious procedure to address experimenter expectancies is to keep the experimenter blind to the particular condition in which subjects are being tested. If experimenters are at least blind up to the point where it is absolutely necessary that they become aware of the treatment to be administered, it is less likely that bias will intrude into the data collection. Clearly, research into the social nature of the research process has given us a number of options to address these social interaction problems.

Subject's Reactivity to Experiments

The meaning of the experiment to subjects. The second major problem is the subject's reactivity to the experiment. By this I mean the subjects' perceptions, thoughts and feelings about the experiment and their associated motivations, intentions, and other internal response sets. These perceptions and thoughts stem in part from the instructions and task, but are aroused in large part unintentionally by the experimenter's behavior and by other features associated with the experiment. Martin Orne (1962) referred to these as "demand characteristics" – cues that so compellingly convey what is expected behavior that they appear to subjects to demand a particular response.

Although researchers may hope to tap subjects' spontaneous behavior to experimental treatments, human subjects generally think and take into account available demand characteristics as they respond. Through the subjective processing of these characteristics they develop their own conception of what the experiment is about. Because the experimenter has intentionally left vague some features of the experiment, the subject feels a strong urge to piece together available cues (or demand characteristics) into their own "definition of the situation" (Alexander & Knight, 1971).

Orne (1962) provides an excellent example of the kind of subjective processing subjects engage in. He was interested in experimentally testing the age-old myth that persons would not perform under hypnosis any action or behavior that they would not perform in waking life. Orne tried to devise some simple task that subjects might be reluctant to perform in the laboratory. One such task required the subject to perform a large number of mathematical calculations on one of a number of printed sheets stacked before them. Upon completion of each sheet the subject was instructed to pick up the top card from a stack of 3 x 5 cards and do whatever it said. Each card told the subject to take the sheet on which he/she had just completed the calculations, to tear it into "a minimum of thirty-two pieces," and to begin the calculations on the next sheet. With substantial stacks of identical cards and printed sheets, the subject had an obviously dull and meaningless task, which they could terminate at any point by calling the experimenter who would be in the next room. Although it was assumed that subjects would shortly see the futility of this task and terminate the experiment, subjects continued to work for quite some time with hardly an indication of hostility. After several hours it was the experimenter who finally gave up! He asked the subjects what they thought the experiment was about and why they hadn't stopped. Every subject responded similarly – they had seen the task as having another purpose. Specifically they had seen it as a test of their endurance!

This anecdote illustrates a very important

social principle governing the research process: Subjects enter experiments with a curiosity or desire to find a meaning or purpose for what they are asked to do. Sometimes subjects will correctly perceive the experimenter's hypothesis as the purpose for the study; sometimes they won't. What is more important is that whatever *they* perceive as the purpose of the study will be a prime determinant of their behavior.

Subjects' cooperative set. A second social principle in experiments is that research subjects have a very powerful urge to cooperate with the experimenter. Orne (1962) illustrates this by contrasting requests from a friend with that of an experimenter. If you were to ask an acquaintance to do ten pushups for you, he or she would look quizically at you and ask "Why?" By contrast, if you were to ask subjects in a psychological experiment to do ten pushups, they would ask "Where?" Subjects' predisposition to be cooperative likely stems from the informal interpersonal contract they enter into upon agreeing to participate in the experiment. When asked, subjects will consistently tell you that cooperation is their foremost obligation as subjects (Epstein, Suedfeld & Silverman, 1973; Shulman & Berman, 1975; Adair & Spinner, 1983). The subjects' set, of course, is to cooperate with whatever they perceive to be the purpose of the experiment.

Social psychological research on subject motivation in experiments some years ago identified four subject motives: cooperative or "good" subject role, the faithful subject role, the negativistic subject role, and the apprehensive subject role (Weber & Cook, 1972). Although these concepts were initially useful for organizing thinking on subjects' orientations toward experimentation, the role concepts themselves were ill-formed, casually defined, and largely unsubstantiated by subsequent research. For the most part negativistic subjects are seldom found in experiments and faithful subjects, who presumably intend to remain uninfluenced by demand cues, are basically subjects who are unaware or who become aware so belatedly that they are unable to use their awareness to advantage. The apprehensive subject role implies that subjects look for and respond with behaviors that they regard as socially desirable. Because subjects generally perceive the hypothesis or purpose for the experiment as defining the most socially desirable response, it becomes virtually impossible to separate the apprehensive from the cooperative or good subject role. As a consequence it is more parsimonious to consider the subject's attitude towards the experiment as arising from the subject's learning or developing a hypothesis with which he or she is prepared to cooperate, than to make unnecessary assumptions about the motive state of the subject. Generally it is only in experiments designed to test undesirable behaviors such as aggression or cheating that it may be necessary to give special consideration to subjects' motivation to behave in a self enhancing, rather than in a cooperative mode.

Problems of interpretation of data. Individualistic interpretations of demand characteristics by subjects do not pose an artifactual problem, but a problem may arise when a sizeable number of subjects perceive an experiment similarly. This often occurs because demand characteristics in experiments are so compelling, and it results in subjects' data appearing systematic, as if there was a treatment effect. The researcher who is insensitive to the fact that it was merely a sizeable response to demand characteristics may arrive at erroneous conclusions.

Orne (1973) has called this the "two-experiment problem." In any study there are potentially two experiments: the study planned by the investigator and the study perceived and participated in by the subjects (Orne, 1973). Experimenters generally assume that subjects will see the experiment the same way they do. Unfortunately this may not be the case. Subjects view the task and procedures from a different perspective and may be reacting to an experiment that is entirely different from the one the experimenter intended. Because it is the subjects' view rather than the experimenter's that will determine how the subject responds, it

becomes essential for the investigator to understand how the situation is perceived. Subjects' reactive thoughts, intentions and motivations about the experiment are unfortunately private and not often evident to the experimenter. Their inaccessability renders the researcher vulnerable to misinterpretation of subjects' behaviors. It is only by querying the meaning of the situation to the subjects, as was eventually done in the Hawthorne experiments, that the experimenter may test whether the subjects' perceptions match their intended interpretation. If they do not, the subjects' experiment becomes the rival or alternative hypothesis that, if the experimenter becomes aware of it, should be considered in place of the hypothesized treatment effect.

Controls for the Reactivity Problem

Over the years a number of methods have evolved to address the problem of subjects' reactivity. The most common is the use of deception, where subjects are actively misled regarding the purpose of the experiment, given false feedback about their performance, or given misleading information about the task or about other persons within the experiment. At least half of all contemporary social psychological research employs deception (Adair, Dushenko, Lindsay, 1985), and this percentage has been increasing over the past couple of decades. While deception may achieve its goal of enabling the investigator to capture subjects' spontaneous responses by misleading their thoughts about the true purpose of the study, deception also raises serious ethical concerns, concerns for the future image of the discipline, and methodological problems arising from the failure of all subjects to "fall" for the deception. Less ethically problematic approaches, such as disguising experiments so that subjects are unaware that they are actually participating in a study, or collecting data by nonreactive methods such as unobtrusive observations or physical traces, effectively circumvent the reactivity problem. These methods have limited applicability, however, because few of the behaviors we wish to study can indeed be examined in this fashion.

Research into the social psychological issues in experimentation has led directly to the development of other techniques that permit assessment of the extent to which subjects' reactivity might be a problem. These are called "quasi control" techniques (Orne, 1962), because they provide an assessment of the extent of the reactivity problem rather than attempting to control or remove its effect. Most of these techniques are based on obtaining a phenomenological report from subjects of their views of the experiment. In the postexperimental inquiry subjects are questioned about their view of the study after it is completed. Many psychologists are wary of any verbal reports from subjects. They feel such reports are suspect because of the demand characteristics associated with the questioning technique itself. I am personally amazed at how trusting many researchers are of behavioral data, which take no account of the subjects' phenomenological perspectives. They often rely on such data to the exclusion of self-report data, simply because self-report data *may* not be as trustworthy as they would like.

Concurrent reports, a variant of the postexperimental inquiry procedure, reduce problems of memory loss by obtaining subjects' thoughts about the experiment as it unfolds. The preexperiment inquiry or nonexperiment (Orne, 1962), is another variant. Subjects are provided with a description of the experimental manipulations without experiencing the treatment, and are asked their view of the study and how they felt they should have responded. If their responses tally with those of subjects who experienced the treatments, it seems likely that the treatment effect is largely due to demand characteristics. A final quasi-control procedure, simulation, has been used extensively in hypnosis research (though very infrequently in other areas of psychology). In this technique non-hypnotizable subjects are enlisted to simulate or fake hypnosis, to see if their thoughts of how a hypnotized subject should behave produce the same results as the hypnosis treatment.

Conclusions

The final consequence of research into social psychological issues in experimentation has been to stimulate searches for alternative methodologies. Although most social psychologists feel the experimental method has served us well, and social research has identified solutions as well as probed the shortcomings of experimentation, others have felt that this research has shown the experimental approach to be inadequate for human research. They feel that the laboratory experiment has been shown to lack internal validity; to lack relevance or generalizability to real life; to promote a mechanistic experimenter-subject relationship; and to generate ethical concerns, primarily of deception, informed consent, and coercion. Proponents of the experimental approach correctly point out that there is no better technique than the experiment for definitively testing cause-effect relationships, that most of the problems have been corrected by the techniques described above, and that considerable knowledge has been gained through the use of this method. The major problem, most will acknowledge, is that there has been an overdependency in psychology on experimental methodology. Approximately 80% of the research published in the major social psychological journals for the past three decades has employed the experimental method (Higbee, Millard, & Folkman, 1982), and a change in this pattern seems warranted. (Sociology has had an equivalent dependency on a single methodology. Brenner (1982) reports two studies that indicate that 90% or more of published studies in two general sociology journals over several years were of the questionnaire or interview variety).

Current research suggests that no single alternative methodology is likely to better handle all the complexity of human behavior and all of the social psychological research issues that have been identified. Although some have proposed that what we need is more field research to address the lack of external validity in some experiments, more role playing or simulation to address the methodological and ethical problems that arise from the use of deception, and others have advocated increased use of questionnaires and surveys to more directly obtain access to the subjects' cognitive and phenomenological experience, each of these methodologies has its own shortcomings that render it less than fully effective as a single methodology for psychological investigation. Forsaking the laboratory experiment for any of these alternatives would be most unwarranted. What is needed, and appears to be happening, is an increasing use of multiple methodologies. By using several methods to research a single topic, we are able to capitalize on the strength of each method. The strength of one method in turn compensates for the weakness of other methods. Moreover, by employing multiple methodologies, it may be possible to "triangulate" solutions to our research questions by exploring topics from multiple perspectives. It is in these directions that I see social psychological research moving.

I would hope that we have also learned another lesson from this research. Any alternative research method we devise will also, by definition, be social in nature and research into the phenomenological and social processes influencing that method must be pursued. As a student of social psychology it is important to realize that if you do not understand the social nature of your research setting, you may also have a less than veridical understanding of the social situation your methods are designed to study.