1967

Incidental Learning as a Test of the Overinclusion Hypothesis in Schizophrenia

Dale G. LeNoue
Loyola University Chicago

THE STIMULUS VALUE OF A CLERGYMAN AS THE ADMINISTRATOR OF PSYCHOLOGICAL TESTS

by

Pius C. Lartigue, O.S.B.

A Thesis Submitted to the Faculty of the Graduate School
of Loyola University in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts

June
1967

LIFE

Pius Carroll Lartigue, O.S.B., was born in Baton Rouge, Louisiana, December 22, 1928. He graduated from St. Joseph Preparatory Seminary, St. Benedict, Louisiana, December, 1945. In July, 1947, he entered the Benedictine Abbey of St. Joseph, St. Benedict, Louisiana, and was professed as a religious in August, 1948. He was ordained a Catholic priest in May, 1953. In June, 1956, he received the degree of Master of Science in Library Science from the Catholic University, Washington, D.C. He received the degree of Bachelor of Science in Education from Loyola University, New Orleans, Louisiana, in June, 1960.

From 1955 to 1965 he was Librarian and taught high school and junior college courses at St. Joseph Seminary, St. Benedict, Louisiana. He began his studies in the Graduate School of Psychology at Loyola University, Chicago, Illinois in June, 1964.

ACKNOWLEDGMENTS

The author is primarily indebted to Dr. Ronald E. Walker whose advice was instrumental in the planning and analysis of the experiment which constitutes this thesis. Gratitude is also expressed to Mary Beth Paul for her assistance in the statistical analysis of the data.

TABLE OF CONTENTS

CHAPTER I

Introduction

The recent publication of Rosenthal's Experimenter Effects in Behavioral Research (1966) is concrete evidence of the interest in and concern over the impact of the experimenter (who can also be understood as an administrator of psychological tests or even as a therapist) on the behavior of his subjects. The investigation of this relationship between characteristics of the examiner and the responses of his subjects is important, as Rosenthal points out, because "so much of what has been learned by behavioral scientists has been learned within the context of the experimenter-subject relationship. ...If the personal characteristics of the data collector have determined in part the subject's responses, then we must judge our knowledge the more lightly for it." It would therefore follow that the more we know about the experimenter as an independent variable in the experimental, testing or therapy situation, the more meaningful interpretations we will be able to give to the various experimental findings. The growing interest in this problem has resulted in numerous experiments which have attempted to manipulate and control various experimenter or examiner characteristics to determine their influence on subjects' behavior.

One aspect of the examiner that merits special attention has been forced into prominence by the recent influx of clergymen of different faiths into the field of the behavioral sciences (Seeman, 1961; Webb, 1962). The point at issue is that clergymen of all faiths, because of their office, obtain a position of status and prestige in both their religious and social communities. This is perhaps especially true in highly structured, authoritarian religious denominations in which the clergy are somewhat set apart from the members by dress and way of life. In some instances, as is the case with Catholic priests, persons are accustomed to approach their clergymen with more candor and openness in the confessional resulting, perhaps, in a less defensive attitude which may carry over to the priest as examiner in experimental or testing situations. It is reasonable to suppose that the special role or prestige accorded to priests, ministers and rabbis by the member of their churches may well influence the subjects they encounter in experimental or testing situations. To date, however, there has been a minimum of scientific investigation into the specific nature and extent of the influence which might be exercised on a subject's responses by such a clergy-examiner.

The specific purpose of this thesis is to explore the stimulus value of a clergyman (in this case, a Catholic priest)

as the administrator of psychological tests. This will be done by investigating the difference of subjects' responses to the General Anxiety Scale for Children (Sarason, Davidson, Lighthall, Waite, and Britton, 1960) when this questionnaire is administered by a clergyman and a layman, in group and individual testing situations. The test will yield two scores for each subject: an anxiety score and a lie score. It is hypothesized that all subjects will score higher on the anxiety scale and lower on the lie scale when tested individually by the clergyman. It is further hypothesized, based on the findings of Sarason (1960), Keller and Rowley (1962) and Palermo (1959), that, in general, female anxiety scores will be higher than males', and that the male lie scores, interpreted as manifestations of the male's defensiveness to the admission of anxiety, will be higher than the female lie scores.

CHAPTER II

Review of the Literature

Significant studies of the experimenter variable have been made by Kintz, Delprato, Mettee, Persons, and Schappe (1965), Masling (1960), and McGuigan (1963). A most comprehensive review of the literature available on the experimenter effect is available in Rosenthal (1966). In this volume he discusses relevant material pertaining to biosocial attributes of the experimenter (such as the examiner's sex, age, race and religion), various psychosocial attributes (the examiner's anxiety, need for approval, birth order, hostility, authoritarianism, intelligence and dominance), and two social psychological attributes (the examiner's relative status to the subject and his warmth). He also reviews studies relating to the effects resulting from the examiner's acquaintanceship with the subject, the examiner's experience, bias, consistency, and behavior. Special attention is given to the unintentional influence that the experimenter may exert because of his expectancies with regard to the experimental results.

Although most of the above mentioned attributes are present in every experiment, two of them can be singled out as being crucial to any investigation of the stimulus effect of

the clergy-experimenter in his role as a clergyman. These attributes would be the religion and relative status of the experimenter.

To date, investigations into the influence of the religion of the experimenter have been conducted by Hyman, Cobb, Feldman, Hart, and Stember (1954) and Robinson and Rhode (1946). Both of these studies dealt with the interaction of Jewish experimenters on Jewish and Gentile subjects. As such, they are not really pertinent to the problem here at issue. There is, however, reason to believe that as interest increases in this area of the clergyman as an experimental variable, studies investigating comparable differences exerted by a clergyman over members of his own and of other faiths will be forthcoming.

Studies pertaining to the status of the examiner seem to be much more relevant. Investigations have been made concerning prestige gained from formality of dress, of manner, and of request for participation in experiments (Barber and Calverly, 1964; Rosenthal, Kohn, Greenfield and Carota, 1966; Sarason and Minard, 1963), and prestige gained from academic position (Birney, 1958; McTeer, 1953), from military rank (Ekman and Friesen, 1960), and from religious office (Baur, 1966; Walker and Firetto, 1965).

Prince (1962), from his study of verbal control of fifth grade students, reported that control of subjects'

responses was highly correlated with the prestige of the examiner. Norman (1948), speaking of respondents to mail questionnaires, remarks that no matter how the experimenter derives his relative status or prestige, that status affects not only whether the subject will respond but how he will respond.

Of special interest here is the study by Ekman and Friesen (1960) wherein two experimenters presented a photo judging task to army recruits. Sometimes the experimenters were presented as military officers, at other times as enlisted men. A second variable was introduced by reinforcing subjects for liking or disliking the persons pictured in the photographs. The overall results suggested that the officer-experimenter was more effective at increasing the subjects' rate of disliking photographs, whereas the enlisted-man-experimenter was more effective at increasing the subjects' liking the photographs. The authors hypothesized that the officer's encouraged aggressiveness coupled with the recruit's personal aggressive feelings toward the officer effected the negative influence, whereas the more friendly feeling of the subjects toward the fellow enlisted-man-experimenter resulted in a more positive influence.

Rosenthal (1966) states that the "general impression obtained from studies relevant to the experimenter's status

is that when the subject's task involves conforming to an experimenter's influence (as in studies of verbal conditioning or hypnosis), higher status experimenters are more successful in obtaining such conformity."

More directly related to this thesis are the two recent studies by Walker and Firetto (1965) and Baur (1966) investigating respectively the stimulus effect of the clergyman and the nun as administrators of psychological tests.

In the study by Walker and Firetto, 25 students of a Catholic college were tested by a Roman Catholic priest and 24 students by the same person dressed as a layman using the Taylor Manifest Anxiety Scale (MAS) and the MMPI K and L Scales. Results indicated that subjects tested by the priest condition obtained significantly higher MAS scores and significantly lower L scores ($p < .05$). The K scores were also lower for the same group but did not reach statistical significance. No statistically significant differences were found for sex of the subjects.

Baur's study involved 80 subjects, 40 male and 40 female students from a Catholic college, who were tested by a nun and a laywoman. Each examiner tested half her subjects dressed in the role of a nun and half dressed for the role of the laywoman. The test material used was the

Taylor Manifest Anxiety Scale and the MMPI K and L Scales. No significant differences were found on the MAS. On the K Scale, males were less defensive than females ($p < .05$), and both males and females were more defensive to examiners wearing religious habits ($p < .05$). Males scored significantly lower than females on the L Scale ($p < .01$).

From the literature, then, there is some reason to suspect that the children tested should show some significant differences in their responses to the priest and the layman.

CHAPTER III

Procedure

Experimenter. To keep the personality of the experimenter constant the roles of priest and layman were both enacted by the writer, who is actually a 37 year old Caucasian, Catholic priest and a graduate student in clinical psychology. As the priest, he dressed in a black suit and clerical collar and referred to himself as Fr. Pius. As the lay administrator, he dressed in a business suit, white shirt and tie, and introduced himself as Mr. Lartigue.

Subjects. The subjects were 60 male and 60 female Catholic Negro children from the seventh and eighth grades of a Catholic elementary school situated in one of the lower socio-economic neighborhoods of Chicago. The subjects were randomly assigned to the experimental groups. Sixty subjects (30 males and 30 females) were tested by Fr. Pius; the other sixty were tested by Mr. Lartigue. Under each of the experimenter conditions (i.e., as priest and lay administrator) 15 males and 15 females were tested individually, and a group of 15 males and another of 15 females were tested collectively.

Test Materials. All subjects took the General Anxiety Scale for Children (GASC) (Sarason, Davidson, Lighthall,

Waite, and Britton, 1960). The scale is composed of a 34 item Anxiety Scale and an 11 item Lie Scale.

Procedure. The subjects to be tested individually were met by the experimenter in an office. The subject was seated in a comfortable chair across the desk from the experimenter and was asked his name. The experimenter then introduced himself and read the following instructions to each of the subjects:

> My name is Fr. Pius (Mr. Lartigue). I have here a list of questions which deal with the way people think or feel about certain things. I would like to read these questions to you and would like for you to answer "yes" or "no" to each of them. There are no right or wrong answers because different people have different feelings about these things. Your answer will depend on how you feel about the things I ask you. No one but myself will see your answers to these questions. Do you understand? ...Would you mind doing this for me? ...The first question is...

As the subject answered each question, the examiner marked his response on an IBM answer sheet. At the end of the session, the examiner thanked each subject for his cooperation.

The subjects tested in groups were assembled in a spare classroom in the school. Each subject was given a pencil and a specially prepared IBM answer sheet. The examiner introduced himself and read the same instructions aloud which he had read to the individual subjects with the following

addition:

> You are to mark each of your answers on the sheet which is on your desk. If your answer is "yes" just blacken with your pencil the space between the two lines under the word "yes" which is printed on your sheet. If your answer is "no", blacken the space between the two lines under the word "no". Each question will have a number. Be sure that you mark your answer next to that number on your page. Do you understand?

The examiner then read aloud each question while the subjects marked their own responses. At the end of the session, the experimenter asked the subjects to write his or her name on the answer sheet, collected them and thanked the subjects for their cooperation.

CHAPTER IV

Results

Data obtained for each subject on the GASC Anxiety and Lie Scales were treated in a 2 x 2 x 2 factorial design (Edwards, 1960).

The means and standard deviations of the anxiety scores are presented in Table 1. Table 2 presents the summary of the analysis of variance of the anxiety scores. The data show that the F for the Sex of subjects shows a significant difference well beyond the .01 level, with females admitting to a much higher degree of anxiety than do the males. The F for the interaction between Setting (group vs. individual situation) and Role (priest vs. layman examiner) reaches the .05 level of confidence, indicating that the subjects admit to more anxiety when tested individually by the priest examiner and when tested collectively by the lay examiner.

Table 3 presents the means and standard deviations for the lie scores. The summary of the analysis of variance for the lie scores is presented in Table 4. On the Lie Scale only oneoof the F's reached the level of significance. Males, it was found, lied significantly more ($p < .05$) than did females.

TABLE I

Means and Standard Deviations for Anxiety Scores

	MALES		FEMALES	
	M	SD	M	SD
Priest - Group	16.87	4.95	21.80	5.13
Priest - Individual	17.37	4.85	26.33	6.10
Layman - Group	19.20	4.61	24.80	6.83
Layman - Individual	17.09	6.60	21.80	5.11

TABLE 2

Analysis of Variance for Setting, Role and Sex on Anxiety Scale

Source	Sum of Squares	d.f.	Mean Square	F
Setting (Group-Individual)	0.037	1	0.038	-
Role (Priest - Layman)	0.534	1	0.534	-
Sex (Male - Female)	1104.116	1	1104.116	33.2185 *
Setting x Role	193.800	1	193.800	5.8307 **
Setting x Sex	19.200	1	19.200	-
Role x Sex	24.300	1	24.300	-
Setting x Role x Sex	70.658	1	70.658	2.1258
Error	3722.655	112	33.238	
Total		119		

* significant at .01 level

** significant at .05 level

TABLE 3

Means and Standard Deviations for Lie Scores

	MALES		FEMALES	
	M	SD	M	SD
Priest - Group	2.40	1.31	1.73	1.85
Priest - Individual	3.00	1.75	2.73	2.02
Layman - Group	3.20	2.66	1.87	1.67
Layman - Individual	3.13	2.45	2.27	1.18

TABLE 4

Analysis of Variance for Setting, Role and Sex on Lie Scale

Source	Sum of Squares	d.f.	Mean Square	F
Setting (Group - Individual)	7.012	1	7.012	1.7814
Role (Priest - Layman)	0.676	1	0.676	-
Sex (Male - Female)	18.409	1	18.409	4.6768 **
Setting x Role	3.008	1	3.008	-
Setting x Sex	1.408	1	1.408	-
Role x Sex	3.008	1	3.008	-
Setting x Role x Sex	0.408	1	0.408	-
Error	440.862	112	3.936	
Total		119		

** significant at .05 level

CHAPTER V

Discussion

As hypothesized, the data reveal significant sex differences on the GASC with females scoring significantly higher ($p < .01$) on the Anxiety Scale and males scoring significantly higher ($p < .05$) on the Lie Scale. These results do not support those of the Walker and Firetto study (1965), nor those of Baur's study (1966). The findings, however, are expected for subjects of this age level (Sarason, Davidson, Lighthall, Waite and Britton, 1960; Keller and Rowley, 1962; Palermo, 1959).

The finding most pertinent to this present investigation is the interaction between the subjects and the priest and lay examiner. Though the F's for the roles did not reach significant differences when the role was considered alone, we do find some difference when the role is considered with setting (group vs. individual testing situations). On the Anxiety Scale the data show ($p < .05$) that the subjects are more willing to admit anxiety to priest-examiners in individual confrontation but admit more anxiety to the layman in group situations. As a post-hoc explanation it is possible to suggest that this result mirrors the type of experience that these subjects are accustomed to. In the

school where the investigation was conducted, there are three Caucasian males who teach various subjects to all of the children tested. Since they are accustomed to group experiences with a white, male teacher and accustomed to individual confrontation with white male priests, they feel freer in these situations to express more openly their anxiety about the matters touched upon in the questionnaire. Such results, however, are not manifest in the similar situations on the Lie Scale. For though the statistical data do not show significant differences, the trend of the results is that all subjects tested tend to lie more to both priest and lay examiners in the individual situation than they do in the group situation.

Whether or not these same results would be found in children other than Negroes remain to be verified. Palermo (1959), in a study in which he compared CMAS scores of both Negroes and whites, boys and girls, found that Negroes usually score higher on both the Anxiety Scale and the Lie Scale. Further investigation must also be conducted to determine the effect of the white examiner on the Negro youths. There is possibility that the differences in status between the experimenters might have been diminished in the subjects' eyes because of racial differences rather than

the prestige of the examiner. Replication of the experiment with a Negro filling both roles would be very enlightening.

CHAPTER VI

Summary

Two groups of sixty Catholic, Negro children (30 males and 30 females) from the seventh and eighth grades of a Catholic elementary school were administered the CASC by a Roman Catholic priest. For one group of subjects the examiner dressed as a priest, for the other group as a layman. Under each of the experimenter conditions (priest and layman) half of the subjects were tested individually, the other half in groups of 15. The data show that the subjects admitted to more anxiety to the priest examiner in individual confrontation and to the lay examiner when tested in groups ($p < .05$). Other significant findings confirmed previous investigations of anxiety studies with Negro children. Females scored higher than the males on the Anxiety Scale ($p < .01$), while males scored significantly higher on the Lie Scale ($p < .05$). Implications of the study were discussed.

REFERENCES

Barber, T. X., and Calverly, D. S. Effect of E's tone of voice on "hypnotic-like" suggestibility. Psychological Reports, 1964, 15, 139-144.

Baur, Lynn E. Examiner influence in psychological testing: Nun versus laywoman. Unpublished master's thesis, Chicago: Loyola University, 1966.

Bernstein, L. The examiner as an inhibiting factor in clinical testing. Journal of Consulting Psychology, 1956, 20, 287-290.

Birney, R. C. The achievement motive and task performance: a replication. Journal of Abnormal and Social Psychology, 1958, 56, 133-135.

Campbell, F. A., and Fiddlemann, P. B. The effect of examiner status upon Rorschach performance. Journal of Projective Techniques, 1959, 23, 303-306.

Das, J. P. Prestige effects in body-sway suggestibility. Journal of Abnormal and Social Psychology, 1960, 61, 487-488.

Edwards, A. L. Experimental design in psychological research. New York: Holt, 1960.

Ekman, P., and Friesen, W. V. Status and personality of the experimenter as a determinant of verbal conditioning. American Psychologist, 1960, 15, 430. (Abstract)

Hyman, H. H., Cobb, W. J., Feldman, J. J., Hart, C.W., and Stember, C. H. Interviewing in social research. Chicago: University of Chicago Press, 1954.

Keller, E. D., and Rowley, V. N. Junior high school and additional elementary school normative data for Children's Manifest Anxiety Scale. Child Development, 1962, 33, 675-681.

Kintz, B. L., Delprato, D. J., Mettee, D.R., Persons, C. E., and Schappe, R. H. The experimenter effect. Psychological Bulletin, 1965, 63, 223-232.

Masling, J. The influence of situational and interpersonal variables in projective testing. Psychological Bulletin, 1960, 57, 68-85.

Matarazzo, J. D., Saslow, G., and Pareis, E. N. Verbal conditioning of two response classes: some methodological considerations. Journal of Abnormal and Social Psychology, 1960, 61, 190-206.

McGuigan, F. J. The experimenter: a neglected stimulus object. Psychological Bulletin, 1963, 60, 421-428.

McTeer, W. Observational definition of emotion. Psychological Review, 1953, 60, 172-180.

Norman, R. D. A review of some problems related to the mail questionnaire technique. Educational and Psychological Measurement, 1948, 8, 235-247.

Palermo, D. S. Racial comparisons and additional normative data on the Children's Manifest Anxiety Scale. Child Development, 1959, 30, 53-57.

Prince, A. I. Relative prestige and verbal conditioning of children. American Psychologist, 1962, 17, 378. (Abstract)

Robinson, D., and Rhode, S. Two experiments with an anti-Semitism poll. Journal of Abnormal and Social Psychology, 1946, 41, 136-144.

Rosenthal, R. Experimenter effects in behavioral research. New York: Appleton-Century-Crofts, 1966.

Rosenthal, R., Kohn, P., Greenfield, Patricia M., and Carota, N. Data desirability, experimenter expectancy, and the results of psychological research. Journal of Personality and Social Psychology, 1966, 3, 20-27.

Sarason, I. G., and Minard, J. Interrelationships among subject, experimenter, and situational variables. Journal of Abnormal and Social Psychology, 1963, 67, 87-91.

Sarason, S. B., Davidson, K., Lighthall, F., Waite, R., and Britton, K. R. Anxiety in elementary school children: a report of research. New York: Wiley, 1960.

Seeman, J. Psychotherapy. Annual Review of Psychology, 1961, 12, 157-194.

Walker, R. E., and Piretto, A. The clergyman as a variable in psychological testing. Journal of the Scientific Study of Religion, 1965, 4, 234-236.

Webb, W. B. The profession of psychology. New York: Holt, Rinehart, and Winston, 1962.

APPROVAL SHEET

The thesis submitted by Reverend Pius C. Lartigue, O.S.B. has been read and approved by the director of the thesis. Furthermore, the final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content and form.

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

3-20-67
Date

Ronald E Walker
Signature of Adviser