CHAPTER THREE
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PROBLEM AND METHODOLOGY

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CHAPTER - THREE

PROBLEM AND METHODOLOGY

3.1 INTRODUCTION

The present century is remarkable in various areas of human life. We are living in a mass media communication society. Our behaviour is affected by various techniques of communication. It is a fact that communication is the crucial element in the evolution of ideas. Free communication produces necessary ideas which are transmitted through various communication media like newspapers, publications, movies, radio, television, etc. In recent times, problems related to communication, persuasion, social interaction, influence and consequent change have become the focus of much attention for research investigations among the experimental social psychologists. During the second world war and immediately after that, communication has been considered and used as a major instrument to influence and change attitudes, opinions, and values of the people. The greatest impact of influence and change has been observed in manipulating social attitudes, likings and prejudices by the process of
persuasion. To influence people and bring about planned change, a number of theories for attitude change and personality development like inoculation, dissonance and balance or congruity theories have been formulated and developed by social psychologists and later on, summarized in the work of Insko, Mohsin, Sinha, Krishnan, A.S. Patel and others. The earlier significant works published on influencing others were by Hovland, Janis and Kelley (1953). These investigators were inspired by the theoretical orientation of learning theories. Various processes such as suggestion, persuasion and communication are being used to change perception and consequently attitude and thereby to modify behaviour. Fundamentally, suggestion or persuasion underlies all processes of communication, education, propaganda or even rumours, aimed at changing or modifying existing beliefs and attitudes or imparting new knowledge.

In social situation, a person could be made resistant to other attitudinal propaganda by providing supportive information and favourable arguments and make his established attitudes healthier and stronger. The other way is to inoculate the attitudes by presenting the individual first with counter arguments and then refuting these, thereby making him or his belief resistant to subsequent persuasive attack as proposed by McGuire (1961, 1962). The present investigation has been designed to study further, the relative effectiveness of these approaches in inducing resistance to persuasion or change, formulated and experimented
upon by McGuire, but improved upon in some respects by the present investigator.

3.2 THE PROBLEM

The present study aims at investigating the relative effectiveness of some persuasive technique. It is entitled "An experimental study of some variables effecting persuasion and change in beliefs". The whole investigation has been carried out to test the theory expounded by McGuire.

It has been observed by McGuire that the extent of resistance to persuasion induced in terms of attacking or defending arguments (messages) or the extent of change effected as a result of persuasion depends on three main variables, viz. (i) amount of threat contained in the issues defenses whether supportive defense (only favourable arguments corresponding to supportive therapy) or refutational defense (counter-arguments corresponding to inoculation), (ii) amount of participation in the defenses by the subject whether active or passive, and (iii) time interval between defense and attack.

The present investigator adds that the resistance or change effected is determined also by the sequence/order of presentation of defense and attack i.e. whether immunizing sequence (defense followed by attack) or restoration
Further, resistance or change due to persuasion depends on the sex of the persons subjected to persuasion as well as on the age of subjects (i.e., generation level) at which persuasion is directed. McGuire experimented only with respect to cultural truisms, about healthy living, healthy habits and practices. The present author has experimented with controversial social issues—superstitions beliefs—with regard to which the persuasive technique is expected to work more easily on attack.

Further, for development and test of inoculation theory, McGuire adhered to only cultural truisms because most of the individuals have never heard them being attacked. McGuire was not convinced with selective exposure postulate because according to the selective exposure postulate, nearly all attitudes should be relatively free of attack. Individuals should defensively avoid encountering information contrary to their attitudes and McGuire had his own doubts that attitudes were to vary great extent sheltered and protected. The present study was the step forward to McGuire's basic postulate. To test and open up a new horizon, the present study was neither planned with selective exposure nor with cultural truisms. The various social issues, especially regarding superstitious beliefs prevalent in the society, were taken up for the study. These have been discussed in the following pages. The present investigator expected greater change in case of controversial issues rather
than with respect to cultural truisms which are self-
imposed, well established and defended practices or
unanimously accepted propositions. In light of this, the
present investigator planned in his experimental
work to study specially the effect of following variables,
viz. type of defense, order of presentation, sex and
generation gap on change or resistance to change in
superstitious beliefs.

3.3 AIM OF INVESTIGATION

The aim of present investigation is to examine
the relative effectiveness of some persuasive techniques;
more specifically the investigation aims at studying the
various persuasive techniques, adopted in this case for
changing superstitious beliefs. It has also aimed to study
the extent of change in belief as a result of differences
in sex as well as generation gap.

3.4 OBJECTIVES AND HYPOTHESES

The main aim of the present investigation has been
to study the extent of change in superstitious beliefs held
by subjects belonging to both sexes and coming from various
generations, when exposed to different persuasive techniques.
It is expected that the sex differences and generation gap
played crucial role in changing attitudes and beliefs. The
experiment was designed to study the following hypotheses:
(i) Technique of supportive defense is less effective than refutational defense in producing resistance to persuasion. This prediction stems from the selective exposure postulate. Generally a person tends to defend his beliefs by avoiding exposure to counter-arguments rather than by developing positive supports for the belief. The presentation of refutational defense which is given with negative arguments followed by support for the belief gives an individual a shock. Later on, the defense suggests that his beliefs are not as invulnerable as he thought. It serves to provoke his interest in and utilization of the supportive arguments.

(ii) Inoculation approach would be more effective than restoration approach in building up resistance against persuasion the sequence of predictions derived from the postulate that the believer tends to utilize the supportive defense only to the extent that he is being provoked to realize, vulnerability of his beliefs. It was assumed that such realization could be provoked by prior presentation either of the refutational defense or especially of the strong attack. McGuire in his postulate has predicted that the defenses either supportive or refutational are more effective when attack follows defense (inoculation sequence). However, it was also predicted that the superiority of restoration over immunization was greater with the supportive defense than with refutational defense.
iii) Sex differences are also expected to play role in the amount of resistance to persuasion or change. Males and females would show differential resistance to persuasion. It is also predicted that females are more suggestible than males and yield to persuasion or change to a greater extent.

iv) The generation differences are also expected to affect the amount of resistance to persuasion or change. The adolescent subject himself/herself, his/her parents and grand-parents show differential resistance to persuasion. It is expected that adolescents in view of their greater instability would show greater change (less resistance) than more mature parents, while grandparents would change the least (most resistant) on basis of advancing age.

The objectives of the present study are:

i) To study the general effect of inducing resistance to persuasion, as a result of varied techniques of persuasion used to change superstitious beliefs.

ii) To study and test various techniques of inducing resistance to persuasion in terms of supportive and refutational defense.

iii) To examine the effect of two sequences of presentation against 'attack', viz. (a) defense followed by attack
viz. (a) defense followed by attack (inoculation or immunizing sequence), (b) attack followed by defense (restoration sequence).

iv) To study effect of sex if any, in inducing resistance against persuasion.

(v) To study the effect of generation gap, if any, in inducing resistance against persuasion.

3.5 VARIABLES INVOLVED

The present experiment was designed to study the effect of the four independent variables discussed in the following few paragraphs:

A) Types of defense: Defense was studied at two levels as decided in the experimental design.

i) Supportive defense: It contains arguments in favour of belief without even a mention of possible counter-arguments against the belief. The supportive defense was non-threatening, corresponding to supportive therapy.

ii) Refutational defense: It involves pre-exposing the person to counter-arguments against his beliefs with a detailed refutational of these counter-arguments. The refutational defense was more threatening because instead of positively supporting the belief, it mentioned several arguments attacking the belief and then proceeded to refute
these attacking arguments. This corresponded to inoculation.

B) Order of Presentation: The order of presentation of defense followed by subsequent attack or vice-versa was studied thus:

i) Inoculation sequence: Defense (either supportive or refutational) followed by attack against belief showing that attitude towards particular belief was false. The basic assumption in deciding inoculation sequence was first to induce the defense in a person and make him prepared for later counter-arguments. This is analogous to inoculating a person against disease; first he is prepared with defense and then tries to resist the later attack.

ii) Restoration sequence: Attack followed by defense. Attack provides stimulation to a person for the subsequent defensive treatment of supportive or refutational type. Attacking treatment was more threatening than subsequent defensive treatment and therefore, individual’s resistance may enhance to a greater extent in case of the defensive treatments. Under this sequence, the person threatened first gets himself restored or composed with the subsequent defense.

C) Sex: Both (i) males, and (ii) females were used as subjects for the experiment in order to study sex differences.
D) Generation Gap: It has been observed that there has been much conflict or unrest due to generation gap. Members of each generation need guidance and persuasion. The main purpose of the present study has been to examine the extent of change or resistance (due to persuasion) especially as a function of generation gap, i.e., to compare the different generations with reference to the change effected or resistance induced.

In order to study the effect of the generation gap upon the extent of change, three generations viz. (i) the adolescents, (ii) parents and (iii) grandparents were used as subjects in the present study. No doubt, it is very difficult to have such a sample of subjects belonging to continuous three generations; however, rigorous attempts were carried out by the present investigator to obtain such subjects from the same family as far as possible, but then subjects were also taken in a cross-sectional way from different families. The only criteria being (i) adolescents of age group 15-18 years, parents of 25-40 years and grandparents of 60 years and above. Thus, in the initial stage, the investigator has collected data from about 3,000 subjects out of which, at the end, he got an adequate sample of 1200 for final analysis to fit in the cells of the experimental design (2 x 2 x 2 x 3).

Dependent variables: The investigator has measured the extent of change after the persuasive technique in each group in comparison to the pre-persuasion position the
The score achieved in terms of extent of inducing change or resistance to persuasion contained in subsequent attacking or defending arguments, by each subject becomes the dependent variable for data analysis. In other words, it is the amount of change effected - the greater the score, the less the resistance and the lesser the score, the more the resistance.

3.6 CONSTRUCTION OF TOOLS AND MESSAGE MATERIALS

For conducting the research, following tools were prepared:

1) Superstition Attitude Scale: Attitude scale for superstitious beliefs was adapted from the earlier one prepared by Dr. A. S. Patel to measure the intensity of superstitiousness among the individuals. A wide number of statements in different areas were selected from observations, contacts and discussion with general laymen in the community and with experts working in the field of social work, sociology and psychology. Finally, 30 statements were selected on the basis of clarity of ideas and relevancy to the issue concerned and these were to be responded on a five-point scale of agreement. The reliability of each of the statements on the Superstition Attitude Scale (SAS) was found out by comparing the results on the present scale with the results on the same scale, readministered after some time. The validity of the Scale was studied by comparison with the results on another earlier inventory on the same issue as well as in terms of internal consistency.
Further to measure differences in extent of attitude change or resistance to persuasion after the treatments under supportive or refutational defense in inoculation or restoration sequence, the same Attitude Scale with the same statements but with changing the order of statements were prepared and these were printed on two different colours, viz. white and pink meant respectively for administration at two different stages, i.e. pre-test and post-test. This special precaution was taken to distract the attention of the subject from perceiving sameness and to ensure that the subject would perceive that the same scale had not been readministered, though in actuality, it was kept the same scale (Copy in Appendix II).

ii) The Defensive Essays: Two types of essays were prepared to induce defenses in subjects against persuasion, viz. 'supportive defense' and refutational defense'. The supportive defense message contained only favourable arguments keeping in mind the supportive message to reinforce the belief directly. This message was speaking for the belief. The refutational message contained counter-arguments against the belief. First negative arguments were raised and were on refuted in the subsequent part with arguments in details and with examples. In other words, refutational message was also directly supporting the belief ultimately. The only difference between two messages was that the supportive message was non-threatening and the refutational message was threatening. By analogy, the supportive defenses correspond to supportive...
therapy and the refutational defenses to inoculations. The inoculation poses a threat that motivates the individual to develop bolstering arguments for his somewhat weakened belief. This, of course, leads to practice in the development of bolstering arguments. Thus, the motivation to develop bolstering arguments plus the practice acquired in such development produces resistance to subsequent counter-arguments as McGuire explains. That is the rational for refutational defense to be superior to supportive defense. Each type of messages was approximately 300 words in length. One message of refutational type as well as one of the supportive type for the issue, was prepared making in all together two defense messages, both ultimately aiming to strengthen or reinforce the belief held (as shown in Appendix III).

iii) The Attacking message: The messages used in the strong subsequent attack, were like defensive essays, also of the same length of about 300 words. The attacking message in general contained only the negative arguments/statements against the belief and aimed directly at weakening the belief held, since the study involved a superstitious issue (showed in Appendix III).

This defense on attack message which was administered (read) orally to the subjects, in one or the other sequence (either immunizing sequence - defense followed by attack or restoration sequence - attack followed by defense) constituted
four main treatment or persuasion techniques \((2 \times 2)\) formed by two types of defenses and two types of sequences, studied in the present investigation. These are described later on in the section on procedure.

### 3.7 Experimental Design

The present study was planned under the framework adopted by McGuire in his inoculation theory. However, the design adopted by the present investigator, was modified to serve the purpose in the new context. McGuire conducted a series of separate experiments periodically, each time studying one or the other variable independently. This would have resulted in ignoring the interaction effects of different variables. Hence, the present investigator not only included in his study to investigate the effect of a number of other variables, but also improved upon the design to study the main as well as interaction effects of all these variables in the same experiment. Thus, in order to observe the main as well as the interaction effects of the variables under study, he used a factorial design, to investigate the role of the four variables at different levels.

Thus, the study was conducted with an experimental factorial design \((2 \times 2 \times 2 \times 3)\) with the number of subjects as shown below in table No. 1:
### Table 1

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<tr>
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<th>Supportive</th>
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<th>Refutational</th>
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<td>Immuni-</td>
<td>Restoration</td>
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<td>MA</td>
<td>Adolescent</td>
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<td></td>
<td>Parents</td>
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<td></td>
<td>G. Parents</td>
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<td>FE</td>
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<td>Parents</td>
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</tr>
<tr>
<td></td>
<td>G. Parents</td>
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</tbody>
</table>

N = 1200

3.8 **SAMPLES**

A total of 1200 male and female subjects from Kheda, Vadodara and Panchmahals Districts in Gujarat State formed a sample for present investigation. In particular, the college students and their parents as well as grandparents were selected, since the nature of the experiments demanded to meet the same subjects again and again for two times and the students who would understand and respond were easily approachable and available in the colleges. These subjects probably constitute a representative sample (as regards sex, intelligence, attitudes, etc. in general) college students were administered the Scales etc. in a group, but the samples of parents and grandparents were so difficult to meet at a time. They were contacted individually, and so this experiment took much time.
3.9 PROCEDURE FOR CONDUCT OF EXPERIMENT

All the subjects in each group, formed by the different variables under study as shown in the experimental design, were first administered, the attitude scale (printed on white sheet) to measure the originally existing strength of their attitudes towards the respective issues or beliefs concerned. The scores obtained on this first administration of the attitude scale were termed as scores on the pre-test stage.

In the second stage, later on at appointed time, the investigator himself read out before the sub-group concerned consisting of same subjects as in pre-test, the appropriate persuasive message—either attacking or defensive essays of any one type (either supportive or refutational) as per experimental design. At the end of such persuasive message the subjects were again tested on the same Attitude Scale (printed pink sheet). The scores obtained on this second administration of the attitude scale were termed as scores on the post-test. Same treatment was given to the parents and grandparents to study the effect at two stages subjects, i.e. effect on/adolescent, parents as well as grandparents.

In short, there were four main experimental treatments formed by two levels of defense and two levels of sequence. The exact procedure for administering the tests to each of these four conditions is summarized below:
Each of 24 groups formed by these two main treatments and the other two variables viz. Sex, generation was given each of the above mentioned four treatment procedures as per experimental cell. Thus, 24 sub-groups each with 50 subjects making in all 1200 subjects gave 1200 scores for each of the two stages (pre-post). These scores have been statistically analysed to study the main effect as well as interaction effects of the main four variables.

3.10 SCORING PROCEDURE AND STATISTICAL ANALYSIS

The subjects were asked to respond to the statements in the superstition Attitude Scale on a five point scale: from Strongly Agree (SA) to Strongly Disagree (SD). In the questionnaire, some statements were positive, that is, favourable to the issues (for the superstitious beliefs) on one hand and some were negative, i.e. unfavourable to or against the issues. Favourable statements were scored with 5 marks for SA, 4 marks for A, 3 marks for U, 2 for D and 1 for SD; while unfavourable statements were scored in the reverse direction i.e. 1 for SA, 2 for A, 3 for U, 4 for D and 5 for SD respectively. Thus, the total score of each subject in each group was computed with respect to each item.
and issue before the persuasion treatments and after the persuasion treatments i.e. On pre-test and post-post comparison stages.

One way to analyze these scores would be to calculate the scores on Pre-test and Post-test and then find out the differences in scores for various comparisons, viz. Pre-Post comparisons to study the extent of change or resistance in terms of amount of difference. The greater the difference score after the treatment, the greater the change effected in attitudes and the less the resistance induced. The smaller the difference score, the less the change and more the resistance to yield to change after persuasion. Then, these difference scores would be subjected to the statistical techniques of analysis of variance in order to study the main role of each variable as well as the interaction effects of these variables.

The other way to analyse the results was to subject the original scores (rather than difference scores) on Pre and Post tests to the statistical technique of analysis of Co-variance, to test the comparative performance at each of two comparison stages, viz. pre-Post. This technique would automatically take into account the basic earlier (Pre) performance before the treatment and accordingly, adjust the later (Post) performance scores after the treatment, as if the earlier performance serves as a control condition.
Data in the present study were analysed by using the statistical technique of Analysis of Co-variance (which includes Analysis of Variance and then adjust the scores). This was done twice to compare the results of Pre-test stage, in order to test overall significant differences as well as to study the main and interaction effects of all variables under study at each stage. In addition to test overall significance of difference, other subsequent statistical procedures, viz. Least Significant Difference (LSD) test, etc. were used to test specific difference between specific pairs of variables or experimental conditions under study. Some illustrative examples of all these statistical procedures have been given in the appendices (V to XI). In these results, the higher score represents greater amount of change effected or less amount of resistance to persuasion induced by any persuasive technique. The smaller score indicates less change and more resistance to persuasion induced by any persuasive technique.

All these results of statistical analysis have been adequately presented in various tables and discussed at length in the next chapter.