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The Perception of Responsibility in the Frustration-Aggression Paradigm

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THE PERCEPTION OF RESPONSIBILITY IN THE FRUSTRATION-AGGRESSION PARADIGM

by

Susan Ann Coyle Tong

A Thesis
Submitted to the
Faculty in The Graduate College
in partial fulfillment
of the
Degree of Master of Arts

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Susan Ann Coyle Tong
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CHAPTER I

STATEMENT OF THE PROBLEM AND REVIEW OF THE LITERATURE

Statement of the Problem

Traditionally, one significant approach to the study of aggression conceptualizes it as a function of frustration. Frustration is defined as "an interference with the occurrence of an instigated goal-response at its proper time in the behavior sequence".\(^1\) This model holds that frustration is one antecedent condition which can produce aggression. Yet, proponents of this frustration-aggression model also recognize that frustration need not result in aggression; and furthermore, that frustration is not a necessary condition for aggression. Therefore, the task has become one of specifying the conditions under which frustration is most likely to result in aggression. One important elaboration of the frustration-aggression hypothesis which attempts to do this is concerned with the arbitrariness of the frustrating situation.

Arbitrariness, in the frustration-aggression literature, has most often been conceptualized as belonging to the dimension of justifiableness.\(^2\) Arbitrariness has been perceived by these authors to

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be synonymous with "reasonableness".¹ Such a conception of arbitrariness refers to the legitimacy of the frustrating situation. With this conceptualization, it is assumed that in a nonarbitrary frustrating situation, the social nature of the situation prohibits direct aggression against the instigator of the frustration. If this is so, then the instigation to aggression would either be inhibited or reduced internally. If aggression is reduced internally, there is a decrease in the instigation to aggression. Whereas, if aggression is inhibited, the instigation to aggression is not reduced, but is held back, or inhibited. Therefore, when aggression is inhibited, displacement is likely to occur.² Experimental studies have shown that inhibition is most likely to occur under nonarbitrary frustration.

This study proposes that the phenomena involved in an arbitrary situation should be interpreted in terms of the perception of responsibility rather than reasonableness. A responsibility interpretation refers to the frustrated individual's perception of who is responsible for the frustration. Such an explanation suggests that aggression would not be inhibited. Rather, it would be directed at the individual perceived to be responsible for the frustration. Thus, if more than one individual were perceived to be


responsible for a frustration, aggression would be directed at all of them. The responsibility hypothesis is: given frustration, the expression of aggression toward a target is directly related and in proportion to the perception of responsibility of the target for the frustration.

A Review of The Literature and Research Problems

The frustration-aggression hypothesis

The frustration-aggression hypothesis has played a major role in studies on aggression. This hypothesis was originally proposed by Dollard, Miller, Doob, Mowrer, and Sears¹ in their now classic work entitled Frustration and Aggression. The frustration-aggression hypothesis proposes two things: one, that the "occurrence of aggressive behavior always presupposes the existence of frustration," and two, that "the existence of frustration always leads to some form of aggression".²

Dollard et al.³ defined frustration as "an interference with the occurrence of an instigated goal-response at its proper time in the behavior sequence". These authors suggest that in order to say that frustration exists, two things need to be specified. They are: (1) that the organism could have been expected to perform certain acts, and (2) that these acts have been prevented from occurring."⁴

¹Dollard, op. cit., p. 1.
²Ibid.
³loc. cit., p. 7.
⁴loc. cit., p. 7.
The first specification refers to the need to identify that a goalresponse is in the process of occurring although Dollard, et al. are not concerned whether the goal-response involves gross overt activity or not. The second specification refers to the necessity of identifying the mode of interference.

Aggression is defined by these authors as "any such sequence of behavior, the goal-response to which is the injury of the person toward whom it is directed".\(^1\) Dollard, et al.\(^2\) point out that aggression need not be overt, but rather it may occur in a dream or phantasy or a well thought-out plan for revenge. The object of the aggression may be inanimate as well as animate. Furthermore, in some instances, aggression even may be directed toward no specific object; an example of this that Dollard and his colleagues\(^3\) give is that of a man swearing after he has struck his thumb with a hammer. In such a situation, the behavior would be considered aggressive because "the action would cause pain if it were directed toward a person."\(^4\)

Dollard and his colleagues\(^5\) provide the illustration of a college student driving to a distant city to attend a football game with a girl whom he is trying to impress. During the course of the drive, the couple was having a good time and the student "was

\(^1\)loc. cit., p. 9.
\(^2\)loc. cit., p. 10.
\(^3\)ibid.
\(^4\)loc. cit., p. 10.
\(^5\)loc. cit., pp. 10-12.
silently congratulating himself on the successful arrangements he had made." Suddenly he was pulled over to the side of the highway by a traffic officer who reprimanded him severely and in a very insulting manner for "driving like a high-school kid". The authors indicated that both his rapport with his date and the happy anticipations he had had were immediately destroyed by the sound of the siren and the officer's intrusion. From then on the student began to berate the manner of the policeman and he criticized the police in that state for being notorious for their bullying methods. The student began to have difficulty with his car; he grated the gears frequently in shifting, refused to let other cars pass him and made insulting remarks about every policeman who came in sight.

Dollard et al.¹ explain the student's change in behavior as resulting from being frustrated by being humiliated before his girl friend. The student's expectations of favorable responses from her diminished. Thus, his behavior became aggressive because of his hostility toward the officer.

Dollard and his colleagues use specific terminology to describe the goal response sequence. An "instigator" is defined as "some antecedent condition of which the predicted response is the consequence".² In the previous example, the student has at least two instigations. The student has an instigation to make a good impression on his girlfriend, and he is instigated towards having an

¹loc. cit., p. 12.
²loc. cit., p. 3.
enjoyable time. Instigators may be directly observable or they may be an internal condition that can only be inferred.\(^1\) A number of response sequences may be elicited in order to attain this predicted goal-response. For example, the student asks and takes the girl to the game, he makes an effort to be entertaining and he has made elaborate plans for their entertainment. The "strength of the instigation" is also an important factor for these authors. Instigation is considered to be a quantitative concept, the strength of which "is measured by the degree to which the instigated response competed successfully with simultaneously incompatible responses".\(^2\)

For example, simultaneous instigated incompatible responses for the student might have been that of going home for the weekend to be with his sick mother versus making a good impression on his girl friend and having a good time. Since the student went to the game regardless, the strength of the instigation to make a good impression with his girl friend and have a good time might be said to have been stronger than it would have been if the student had cancelled the date to go home instead.

**Is frustration a necessary condition for aggression?**

Dollard and his colleagues\(^3\) have maintained that frustration is a necessary condition for aggression. One exception to this rule is

\(^{1}\)ibid.

\(^{2}\)loc. cit., pp. 4-5.

\(^{3}\)loc. cit., p. 1.
instrumental aggression. Instrumental aggression refers to that aggressive behavior which is "primarily oriented toward the attainment of some goal other than doing injury". In this regard, Bandura and Walters have shown that a child can learn to respond aggressively by exposing him to successful aggressive models, and rewarding him intermittently for aggressive behavior even if frustration is kept at a very low level. Berkowitz has suggested that Dollard and his colleagues were aware of the implication of instrumental aggression in their work; and by intentionally excluding instrumental aggression from their hypothesis these authors, it is suggested, have eliminated a possible line of criticism. Such an exclusion of instrumental aggression does not remove criticism since it only indicates an inconsistency in the frustration-aggression hypothesis. If frustration is a necessary condition for aggression, there can be no exception.

Some researchers have suggested that there are other kinds of aggression besides instrumental which are not the result of frustration. Durbin and Bowlby have suggested that there are two other causes of aggression besides frustration; they are: (1) disputes

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3 Berkowitz, op. cit., p. 31 citing Dollard, op. cit., p. 11.

over the possession of external objects and, (2) resentment at the intrusion of a stranger into their group. There are some authors who would consider pain and aggression resulting from it, another example of aggression without frustration. In this vein, Menninger\(^1\) has criticized the frustration-aggression hypothesis, stating that "anyone who has had his toe stepped on, which is certainly not a frustration, knows how inadequate such a formula is".

Berkowitz\(^2\) has attempted to clarify this issue of whether there are kinds of aggression that are not the result of frustration. He suggests that the difficulty lies in the definition of frustration. Berkowitz reasons that Dollard and his colleagues have defined frustration in broader terms than their critics. Thus, Berkowitz\(^3\) suggests that "all of the aggression-arousing conditions mentioned by these critics can be considered as instances of frustrations." As Berkowitz sees it, individuals fight over the possession of an external object because they desire to possess it; they are frustrated in their attempt to obtain it, which leads to aggression. Similarly, Berkowitz explains the attack on a stranger who enters a group as arising because the stranger is seen a potential threat; this stranger is a potential obstacle to goal attainment whether it be security, dominant status, or so forth. To explain that situation,


\(^2\)loc. cit., p. 30.

\(^3\)ibid.
where a person is struck in an unprovoked manner, Berkowitz \(^1\) refers to McDougall. In this situation, although the blow might not openly interfere with any activity at that moment, McDougall suggests that it could interfere with his "impulse of self assertion". Berkowitz \(^2\) stresses that "what is relevant here is the interruption of an internal response sequence or the blocking of some drive".

Berkowitz's interpretation of this entire issue pin-points a major problem of the frustration-aggression studies. Perhaps Dollard et al. did define frustration in broader terms than did their critics. But then, as Berkowitz's discussion seems to suggest, the problem is anything preceding aggression could be interpreted as frustrating. Berkowitz \(^3\) has stated that "many of the failures to confirm the frustration-aggression hypothesis, reflect the vagueness of the term in the hypothesis -- particularly frustration -- rather than the formulation's essential lack of validity". What seems to be needed is not a broad definition of frustration that will account for all kinds of aggression, but a more precise definition of frustration which will help in differentiating those aggressions that are the result of frustration from those which are not.

Frustration is not necessary for aggression. Besides instrumental aggression, there are other kinds of aggression that do not


\(^2\)loc. cit., p. 30.

presuppose frustration as critics of the frustration-aggression hypothesis have suggested. Too broad of a definition has hindered research in the area. A more precise definition of frustration would facilitate in differentiating those situations which are most likely to be accompanied by aggression from those which are not. This study will attempt such an endeavor.

**Does aggression always follow frustration?**

You will recall that Dollard and his colleagues hypothesized that frustration always led to some form of aggression. Miller,\(^1\) one of the original authors, later revised this part of the hypothesis when he stated that "frustration produces instigations to a number of different types of responses, one of which is an instigation to some form of aggression". With this revision, the task becomes one of identifying those conditions which increase the probability that aggression will occur given frustration.

Berkowitz\(^2\) has suggested that aggression may not occur in a given frustrating situation if "the individual has learned to make a nonaggressive reaction". He suggests that some individuals have learned to respond nonaggressively to frustrations, but nevertheless, if the first responses did not reduce the frustration, these non-aggressive reactions would weaken. If frustration persists, even-

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tually aggression will occur.¹

A second major condition that increases the probability that aggression will occur, is the availability of a target which has the appropriate stimulus qualities. Thus, for Berkowitz,² aggressive cues increase the probability that aggression will occur and their absence decreases that probability. A third condition that influences the probability that aggression will occur, has to do with cognitive factors of which there are two general categories. These categories are: a) cognitive expressions of aggression such as hostility, and b) cognitive factors influencing aggression such as perception of the frustrating agent.

Dollard and his colleagues³ neglected to include cognitive factors in their formulation because of their strongly behavioristic approach. Berkowitz⁴ suggests that these authors "believed it was preferable scientifically to develop hypotheses utilizing only variables that could be observed directly". Other researchers have not had these reservations and a whole line of research on frustration-aggression has been in this direction. Our concern is with conditions influencing the perception of the frustrating agent as it relates to the cognitive expression of aggression.

¹ibid.

²loc. cit., p. 18.


⁴ibid.
"Arbitrariness" in the frustration-aggression paradigm

Pastore\(^1\) has introduced an important modification to the frustration-aggression hypothesis. He noted in an early paper by Doob and Sears that from their discussion it was evident that they considered aggression to be a primary response to frustration. In this paper, Doobs and Sears presented 16 typically frustrating situations to subjects. Pastore\(^2\) has suggested that in practically all of the 16 situations presented the frustrating agent could be described as arbitrary or unreasonable. Pastore\(^3\) proposed that "the reasonableness or unreasonableness of the frustrating agent was significantly related to the evocation of aggressive responses". Unfortunately, Pastore\(^4\) did not define the concept "arbitrariness" other than to suggest that "the term is related to some dimension of justifiableness".

To demonstrate the effect of arbitrariness, Pastore conducted a study that partially replicated the study of Doobs and Sears in which he presented both arbitrary and nonarbitrary situations to subjects on a questionnaire. It should be pointed out that this study dealt with hypothetical situations. Therefore, frustration was not

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\(^1\) Pastore, op. cit., p. 728.
\(^2\) ibid.
\(^3\) loc. cit., p. 728.
\(^4\) ibid.
measured in terms of the subjects' responses to hypothetical situations. Pastore\(^1\) found, as he expected, that the mean number of aggressive responses for the subjects given the arbitrary set, was significantly different from those subjects who were given the non-arbitrary set.

Cohen\(^2\) attempted a further replication of Pastore's work, but he also introduced two more variables which he considered relevant to the frustration-aggression hypothesis. The first of these variables was the type of frustrating agent, the authority figure and the peer figure. He called his second variable the ideal-actual distinction; "Ideally, what would a person say he ought to do in a frustrating situation as compared with what he says he would actually do?"\(^3\) Cohen\(^4\) found "that the three experimental variables may be differentially important in influencing aggressive responses to the frustrating situations presented in this experiment". The clearest differences were between the Ideal and Actual conditions followed by the Nonarbitrary and Arbitrary conditions. The mean percent of aggression for each of these experimental variables was: Ideal .411 versus Actual 2.781, Nonarbitrary 1.233 versus Arbitrary 2.159, and

\(^1\)loc. cit., p. 730.


\(^3\)loc. cit., p. 222.

\(^4\)loc. cit., p. 224.
Authority 1.6788 versus Peer 1.788.\(^1\) Furthermore, he found that the Arbitrary condition always produced more aggression than the Non-arbitrary condition, and that this difference was greater under the Actual as opposed to the Ideal and the Peer, rather than the Authority figure. The one exception to this rule was the Actual Nonarbitrary condition where the authority figure brought out more aggression than the Peer. Cohen\(^2\) suggests that this single reversal may help to account for the relative weakness of the Authority-Peer variable.

Rothaus and Worchel\(^3\) have pointed out that although Pastore and Cohen both found that nonarbitrary frustrations were accepted with minimal signs of hostility in their questionnaires, it is unclear whether this decrease in hostility is due to response inhibition. Just as Pastore noted that the situations that Doob used in his questionnaire were primarily arbitrary ones, so Rothaus and Worchel noted that Pastore's nonarbitrary situations might arouse inhibitory responses by their very social nature; "Standards of fair play, charity, and help would be violated in these situations by any hostile behavior directed towards the unfortunate and unwitting frustrating agent".\(^4\) Rothaus and Worchel have suggested that if the aggressive act is inhibited rather than reduced in a nonarbitrary frustrating situation, then the aggression remains and is likely to

\(^{1}\)ibid.

\(^{2}\)loc. cit., p. 224.

\(^{3}\)Rothaus, op. cit., p. 108.

\(^{4}\)ibid.
manifest itself in displacement, whether toward innocent targets or oneself.

To test this, they designed a study that partially replicated Pastore's, but they added two additional research variables, sex and self-discrepancy, to their study. Like Pastore's work, Rothaus and Worchel used questionnaires and did not experimentally manipulate their independent variable. To test for response inhibition, they utilized a projective form of Pastore's questionnaire in addition to the original questionnaires used by Pastore. There were thus, four sets of questionnaires: arbitrary, nonarbitrary, projective arbitrary, and projective nonarbitrary. Furthermore, actions and feelings were recorded separately. To test for self-ideal discrepancy, the Worchel Self Activity Inventory (1957) was employed.

The authors found that:

1. Ss under an arbitrary set of frustration reported significantly greater hostile feelings, actions, and percentage of actions to feelings than those under the nonarbitrary frustration.

2. Ss under the projective nonarbitrary frustration reported significantly greater number of hostile feelings, actions, and percentages of actions to feelings, than those under the nonarbitrary frustration.

3. Though there was no significant difference between the sexes in the number of hostile feelings, the males reported greater hostile actions and percentage of hostile actions to feelings than did the females.

4. On both actions and percentage, Ss with high self-ideal discrepancy reported higher hostility than those with low self-ideal discrepancy.

5. On feeling, however, the significant triple interaction showed that under arbitrary frustration,
males with low self-ideal discrepancy reported higher hostile feelings than those with high discrepancy. For the females under the same condition, it was the reverse; that is, those with high SI discrepancy reported more hostile feelings than those with low discrepancy. Under nonarbitrary conditions, all the Ss with high SI discrepancy, on the average, reported more hostile feelings than those with low discrepancy.¹

Therefore, their findings confirm Pastore's hypothesis that aggression is greater under arbitrary frustration as opposed to nonarbitrary frustration, and also supports their hypothesis that "under a nonarbitrary or reasonable set of frustrations, instigation to aggression was still present, but inhibited owing to the nature of the situation".² In this article, regretfully, the authors do not sufficiently discuss why the inhibition occurs other than to refer to the nature of certain social situations.

Kregarman and Worchel³ have suggested that the Rothaus and Worchel study only partially confirmed the hypothesis of response inhibition under nonarbitrary frustration. They argued that in the Rothaus and Worchel study, even though they utilized a projective technique to remove inhibition, there was still a significantly greater number of aggressive responses in the arbitrary situation as opposed to the nonarbitrary. Although Kregarman and Worchel do suggest this difference may be due to the failure of the projective

¹loc. cit., p. 116.
²loc. cit., p. 117.
technique to remove all inhibition, they do indicate the need for further research. Their study was designed to further test this hypothesis of response inhibition. In addition, these authors utilized two distinct conceptualizations of "arbitrariness" in their experiment in order to test the explanatory power of each conceptualization for the arousal of aggression. Their first conception of "arbitrariness" is equated with reasonableness. "Reasonableness refers to some dimension of justifiableness (Pastore, 1952), that is, the imposed frustration is seen as necessary or justifiable under the conditions of the situation."¹ In the second conception, "arbitrariness" is conceived to be the expectancy of frustration; thus "under arbitrary conditions, the subjects' expectations are violated".²

The previous studies (Pastore, 1952; Cohen, 1955; Rothaus and Worchel, 1960) had all dealt with hypothetical situations; that is, subjects were asked how they or another person would respond under certain frustrating situations, rather than actually exposing the subjects to the frustrating situation and then measuring their subsequent levels of aggression. Kregarman and Worchel³ have suggested that in hypothetical situations, one might be more likely to give responses in the socially expected direction to reasonable situations. Therefore, in their study, they induced arbitrary and

¹loc. cit., p. 183.
²ibid.
³ibid.
nonarbitrary frustration experimentally. In order to manipulate their independent variables, a bogus intelligence test was administered to subjects. Frustration was imposed by the use of an insult-failure technique during the administration of the test. "Reasonableness of frustration was introduced by stating a reason for the frustration, that is, to study the effects of pressure and distraction."¹ "Expectancy of frustration was aroused by describing the nature of the frustration, that is, verbal comments by the experimenter during the administration of the test."²

Kregearman and Worchel found that expectancy "is an influential factor in affecting the direct expression of aggression" since it also reduces the tendency to express aggression toward the frustrator.³ The reasonableness of frustration did not show a significant difference, but the authors concede that this may be due to the failure of the research design to sufficiently vary this dimension. Furthermore, their results provide evidence for the response inhibition hypothesis, as subjects under both the high expectancy condition and the high justification condition showed significantly higher aggression towards the self. The authors suggest that "this finding is in line with the implication that response inhibition would result in greater displacement toward the self or other objects".⁴

¹loc. cit., p. 184.
²ibid.
³loc. cit., p. 185-186.
⁴loc. cit., p. 185.
In a subsequent study, Burnstein and Worche\textsuperscript{1} again re-examined the hypothesis of response inhibition under nonarbitrary frustration. In this study these authors conceptualized arbitrariness in terms of justifiableness. Like the Kregarman and Worche\textsuperscript{2} study, they manipulated frustration experimentally rather than through hypothetical situations. In both their nonarbitrary and arbitrary conditions, a confederate prevented the members of a group from reaching a unanimous solution within the given amount of time, and thus they failed to complete their task. But, in the arbitrary situation, the confederate's behavior was made to appear "willful and unnecessary" whereas in the nonarbitrary condition, the confederate appeared as a subject wearing a hearing aid which broke, and thus his behavior appeared "reasonable and not under his control".\textsuperscript{2} Burnstein and Worche\textsuperscript{1} suggest that:

The hypothesis that the reduction of aggression under nonarbitrary frustration is partly due to response inhibition is supported by the results on (a) the effects of experimentally reducing the strength of the inhibitory social pressures against expressing aggression, and (b) the displacement of hostility toward E and self.\textsuperscript{3}

Two conceptions of arbitrariness

All of the previous authors conceived of arbitrariness in terms


\textsuperscript{2}loc. cit., p. 530.

\textsuperscript{3}loc. cit., p. 537.
of reasonableness. Kregarman and Worche1 were a notable exception. Their study focused not only on the above conception of arbitrariness, but also on a second conception of arbitrariness as the expectancy of frustration.

A major weakness of the literature on arbitrariness, when it is conceived as being equated with reasonableness, is that the authors have failed to systematically define their concept. They have continually referred to arbitrariness belonging to the dimension of justifiableness, but have not really elaborated beyond this. Pastore2 has suggested that the concept "arbitrary" is difficult to define in psychological terms. What he seems to be suggesting is that the concept lacks clarity.

While the definition of arbitrariness is vague, the concept generates a multitude of illustrations. For example: "you're a private in the army and you apply for a promotion which is denied to you".3 The frustration should be perceived as nonarbitrary if a private whose qualifications are superior to yours, receives the promotion; whereas, the frustration should be perceived as arbitrary if a less qualified private, who has "pull", receives the promotion. Pastore has suggested that people can discriminate between arbitrary and nonarbitrary situations. In this study, he found that "every arbitrary situation yielded a higher mean rating of unjustifiableness

1 Kregarman, op. cit., p. 183.
2 Pastore, op. cit., p. 728.
3 loc. cit., p. 729.
than the corresponding nonarbitrary situation".\footnote{loc. cit., p. 729.}

A second conception of arbitrariness is that of expectancy of frustration. In an early article, Pastore\footnote{Pastore, Nicholas, "A Neglected Factor in the Frustration-Aggression Hypothesis: A Comment." Journal of Psychology, 29 (1950), p. 276.} suggested that the aggression aroused in the experiment by Sears, Hovland, and Miller (1940) was due to the "transgression by the experimenter of the terms of the experiment, under which the subjects agreed to participate". But, in formulating his hypothesis on arbitrary frustration, he conceptualized arbitrariness in terms of unreasonableness. This second conception of arbitrariness has generally not been utilized by those researchers interested in the role of arbitrariness in the frustration-aggression hypothesis, the notable exception being the Kregarman and Worchel study.

There is a major criticism of the expectation conception of arbitrariness. This criticism is based on the issue that a person in a nonarbitrary situation, may have experienced less blockage of a goal directed response, than a person in an arbitrary situation. Berkowitz\footnote{Berkowitz, Leonard, Aggression: A Social Psychological Analysis, op. cit., p. 66.} gives the example of a person waiting for a bus: "If a person had believed he would get on the next bus and then saw it pass him by 'arbitrarily', he would probably be more strongly annoyed than if he had anticipated the bus's failure to stop". Since the level
of frustration may be less intense in the nonarbitrary situation than in the arbitrary, then the two situations are not really equal in terms of the independent variable.

In contrast, when arbitrariness is conceived in terms of the dimension of justifiableness, then the level of frustration is assumed to be of the same intensity for both the arbitrary and nonarbitrary conditions. In this case, it is the intervening variable of perception of arbitrariness that results in a lessening of overt aggression. For this reason, the conception of arbitrariness in terms of reasonableness seems a more appropriate conceptualization. You will recall that of the preceding authors, only Kregarman and Worchel utilized the expectancy conception of arbitrariness. Worchel, in a subsequent study, defined arbitrariness only in terms of reasonableness.

An Alternative Conception of Arbitrariness

This study is based on a third conception of arbitrariness. Arbitrariness will be conceived of in terms of the perception of responsibility. The Burnstein and Worchel study (1962) provided the clue for this new conceptualization.\(^1\) Burnstein and Worchel suggested that their study supported the hypothesis of response inhibition under nonarbitrary frustration. Actually, their results arouse numerous questions as to whether inhibition is really occurring.

\(^1\)Burnstein, op. cit., p. 529.
In their study these authors proposed that:

(a) there should be greater displacement of aggression under nonarbitrary than arbitrary frustration, and (b) reducing the strength of the inhibitory forces postulated under nonarbitrary frustration, should lead to an increase in direct aggression and to a decrease in indirect aggression (displacement).\(^1\)

Burnstein and Worche\(^2\) found that "as the visibility and punitiveness of voting the confederate out of the group were diminished, the frequency of rejection increased in both frustration conditions"; they also indicated that "in the nonarbitrary frustration, rejection of the confederate increased gradually but never equalled the level of rejection in the arbitrary situation".

If under nonarbitrary frustration the absence of direct aggression against the instigator is due to response inhibition, then the level of rejection in the nonarbitrary situation should have been equal to, or almost equal to, the arbitrary situation when the strength of the inhibitory social pressures against expression aggression are reduced. Yet, under these circumstances, only 50 per cent of the subjects rejected the confederate in the nonarbitrary condition. Burnstein and Worche\(^3\) suggest that "this difference may be due to the continued influence of strong opposing pressures from internal standards aroused by the direct nature of the question". An alternative interpretation would suggest that response inhibition

\(^1\)Ibid.

\(^2\)loc. cit., p. 537.

\(^3\)loc. cit., p. 537.
is not as important a factor in nonarbitrary frustration as has been suggested; rather something else may be occurring.

Burnstein and Worcel provide a clue as to what this alternative interpretation might be when they indicate that, "evidence for the influence of response inhibition was found in the expression of hostility towards E and self. If aggression is inhibited, it is likely that displacement would occur towards other targets". They also indicate that Worcel had, in an earlier article, advanced the idea that displacement, when it occurs, is not towards innocent targets but towards those who could also be viewed as frustrating agents. It is this notion, that displacement is toward "guilty" targets, that provides the key. Before exploring this alternative interpretation, it might be helpful to understand Worcel's notion of displacement.

When Worcel found that there was no evidence for displacement of hostility in another experimental study he had conducted, he suggested that "objects associated with or arousing additional frustration, not innocent sources, would be the victims of displacement hostility if they followed a previous frustrating experience where aggression was inhibited". Worcel has expanded this idea in a

1loc. cit., p. 538.


3loc. cit., p. 259.
theory of hostility:

In summary, the proposed theory conceived of hostility as a hypothetical construct related to the antecedent condition of inhibition or inability of direct aggression to remove the frustrating agent. The immediate consequence of hostility is injury to the instigator (with the affective component of hate) which now supercedes the need to attain the original goal-object. If injury to the agent is prevented by conflict with other aroused motives (fear of punishment), the hostile behavior may be "displaced" to other frustrating objects or to the self if the source of the frustration is perceived as internal.

Worchel's conceptualization of displacement is unlike that originally proposed by Miller in 1940. Several predictions can be made from Miller's hypothesis; they are: (1) if an angered individual is prevented from attacking his frustrator solely because of the frustrator's absence, then his strongest hostile tendencies will be directed against those available individuals who are "closest" or most similar to the instigator; however (2) if the angered person cannot attack the frustrator because he is afraid of punishment, he will most likely display overt hostility against some object of intermediate similarity to the instigator.¹ It is the situation in the second prediction (that is, fear of punishment) which Worchel is concerned with. However, unlike Worchel's conceptualization of displacement, Miller's assumes that the target of displacement is not a frustrating agent for the angered person, but an innocent target.

It can be argued that if aggression occurs against one frustra-

tor rather than another, even though the second frustrator appears to the experimenter to be the major instigator of the frustration, that this aggression is not being displaced, but rather it is being directed against the perceived source of frustration. Berkowitz has pointed out that:

It would be a mistake, however, to assume that the individual most closely associated with the onset of the frustration through contiguity automatically becomes the recipient of the uninhabited hostile response elicited by this thwarting in some blind conditioning process. Frustrated people often aggress against those they blame for their unpleasant experiences, but they do not always blame those who actually are most contiguous with these events.

Thus, what Worcel has conceptualized as displacement may actually be direct aggression against the perceived source of frustration.

When exploring this new line of reasoning, Pastore's nonarbitrary set of frustrating situations were re-examined. It appeared to this writer that, in practically all of the situations, the "frustrating" agent could be described as only partially or not at all responsible for the frustration. When nonarbitrary frustration was conceptualized as justifiable and reasonable it was assumed that the social nature of the situation prohibited direct aggression; various experiments that have previously been discussed in this paper have

1 loc. cit., p. 118.


3 One notable exception was a situation that obviously conceived of nonarbitrariness in terms of the expectancy of the frustration.
shown that this absence of direct aggression is due to response inhibition. If nonarbitrary frustration were to be conceived of in terms of the perception of responsibility instead of reasonableness and justifiableness, then it is not the social nature of the situation which prohibited direct aggression; various experiments that have previously been discussed in this paper have suggested that this absence of direct aggression is due to response inhibition. If nonarbitrary frustration were to be conceived of in terms of the perception of responsibility instead of reasonableness and justifiableness, then it is not the social nature of the situation which prohibits direct aggression. Rather, aggression remains direct, but since the agent is perceived to be only partially or not at all responsible for the frustration, then aggression directed against him should naturally be less than if this agent were to be perceived as fully responsible. As Dollard and his colleagues\(^1\) have indicated, "the agent perceived to be the source of the frustration is most likely to be attacked by the frustrated individual".

Thus, in a nonarbitrary situation when the frustrated individual perceives that the "transmitter" of the frustration is not responsible for this action, then direct aggression against him is not likely to occur. This author is using the term "transmitter" to differentiate between that person who transmits the frustration, and that person who is perceived as responsible for the frustration

\(^1\)Dollard, op. cit., p. 39.
(the instigator). With this conceptualization, the transmitter and
the instigator may be one and the same, or they may not be. Previous
studies concerned with arbitrary frustration have not seen this
distinction and they have equated the two. In doing so, they may
have over-looked an important implication for the arbitrariness
research. Thus, using one of Pastore's nonarbitrary frustrating
situations as an example: "Your date phones at the last minute and
breaks an appointment because she (or he) had suddenly become ill".
In this situation the date is the transmitter of the frustration, but
she/he could be perceived as not responsible since her ability was
impaired by sudden illness. With the limited amount of background
information given, responsibility for the frustration (that is the
instigator) might be attributed to the illness. Yet, Pastore and
others would probably consider the date to be the instigator.

A second type of nonarbitrary situation is that in which the
transmitter is perceived as only partially responsible for the
frustration with others also perceived as responsible. In this case,
aggression should be directed at all of those perceived to be re-
ponsible, given their availability. Thus, in the Burnstein and
Worchel experiment, there was considerable aggression directed
against the experimenter and self. Instead of interpreting this as
displacement as the authors did, an alternative interpretation would

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2 Burnstein, op. cit., p. 539.
be that the subjects attributed partial responsibility to the experimenter and self. The experimenter could certainly be perceived to be partially responsible for the frustration in the nonarbitrary condition, since he allowed a deaf individual to participate in the experiment. Even Burnstein and Worchel\(^1\) recognize this although they attribute it to displacement against a guilty target.

In this situation, the self might also be perceived as responsible for the frustration. Since the fellow member was deaf, the other members might have felt it was their responsibility to overcome this handicap, and when they were unable to do so they might have partially blamed themselves. This re-interpretation of Burnstein and Worchel's findings explains why half of the subjects still rejected the confederate in the nonarbitrary condition when the strength of the inhibitory social pressures against expressing aggression was reduced. The subjects aggressed against all those agents whom they perceived to be responsible for their frustration.

This writer is proposing that what distinguishes a nonarbitrary frustrating situation from an arbitrary one, is that the nonarbitrary situation, the transmitter of the frustration, is perceived to be not responsible for the frustration. Consequently, the instigation to aggression is not directed at him in the former situation, and in the latter situation the instigation to aggression should be directed at all guilty targets. In contrast, in an arbitrary frustrating

\(^1\)loc. cit., p. 538.
situation, the transmitter of the frustration is perceived as fully responsible. What this conception of arbitrariness assumes is that the level of frustration is the same under both the arbitrary and nonarbitrary frustration, given that the two situations are equivalent on other factors. Thus, it follows that in a nonarbitrary situation, there should be less aggression directed against the transmitter than in the arbitrary situation.

This study seeks to conceptualize arbitrariness in terms of the perception of responsibility and experimentally examine this concept as a significant variable in the frustration-aggression hypothesis. Thus, the responsibility conception is a newly proposed cognitive factor which may influence the occurrence of aggression. This does not mean to suggest that other cognitive factors such as the expectancy of frustration are not also influential in the occurrence of aggression. In this study frustration will be held constant across all three conditions. Responsibility will be the only independent variable.

Research Hypothesis

The hypothesis of this study is: given frustration, the expression of aggression toward a target is directly related and in proportion to the perception of responsibility of the target for the frustration.

Frustration

In the original formulation of the frustration-aggression
hypothesis, Dollard et al.\(^1\) conceptualized frustration as being "an interference with the occurrence of an instigated goal response at its proper time in the behavior sequence". Berkowitz\(^2\) has suggested a modification of the previous definition. He feels that it should be made explicit "that goal responses must be in operation, whether implicitly or overtly, and prevented from achieving consummation if there is to be a resulting instigation to aggression". With this modification, Berkowitz\(^3\) has suggested that frustration cannot be equated with deprivation; that is, the omission of a customary reward "whether or not the organism was engaged in consummatory or even instrumental activity related to that reward".

**Aggression**

Berkowitz\(^4\) has defined aggression as behavior whose goal is the injury of some object and hostility is treated as synonymous. This study will not be concerned with measuring aggression directly, but will be concerned with measuring anger. Berkowitz\(^5\) has suggested that anger "refers to the emotional state, presumably resulting from frustration, which in the presence of a suitable cue, instigates

\(^1\)Dollard, op. cit., p. 7.
\(^4\)op. cit., p. 2.
\(^5\)ibid.
aggressive responses". This writer is assuming that, since anger is an emotional state, it can be measured with some degree of accuracy through the use of questions that are concerned with how a subject feels. It is recognized that anger is a more difficult variable to utilize as a key variable in an experimental situation, because it lacks observability. Since anger lacks observability, there is the problem of selecting an indicator capable of measuring this variable. This writer felt that the questionnaires devised to do this had face validity. Yet, it was recognized that an indicator of aggression rather than anger would probably have more face validity among researchers in the area of frustration-aggression. Anger was selected as the dependent variable for this study, because previous studies have shown that "Experimental studies in which the subjects have relatively little reason to fear retaliation from the target of potential attack, have generally shown differences in the predicted direction between frustrated and nonfrustrated conditions". It was felt that since the subjects were students and one of the primary instigators was an experimenter, the variable anger would more likely measure hostility than direct aggression. The students might have feared retaliation if they responded aggressively, whereas the indicator utilized in this study, gave the students some assurances of being anonymous.

CHAPTER II

DATA COLLECTION AND ANALYSIS

Data Collection

The following procedures were utilized in the data collection for this study.

Subjects

Subjects were recruited from an introductory social psychology class. All members of this class were told that they would have to participate in a social psychological experiment, for which they would be graded, as a required course assignment. The subjects were randomly assigned to one of the three conditions. Each condition had no more than 28 nor no less than 27 subjects.

Design

The design consisted of two different conditions of arbitrariness and one nonarbitrary condition. The only measure consisted of an after test. Due to the nature of the questionnaire, it was felt that a pretest would act as an extraneous variable and influence the results. Since each condition differed in the manipulation of arbitrariness, it was assumed that any difference between conditions found on the measurement would be the result of the different manipulations.

Experimental manipulations and research instruments
In order to manipulate the independent variable of responsibility, a bogus experiment was created. Subjects were led to believe that they were participating in an experiment designed to measure the effects of fooling on the Rorscharch Inkblot Test. It was during this bogus experiment that frustration and responsibility were induced.

The same frustration was administered to all three conditions; therefore, frustration was held constant. Frustration was imposed by informing the subjects that they had not read the article, which was important in determining their grade for the experiment, because the article was not placed on reserve. Furthermore, they were informed that if the experimental results were not significant, they might have to run the experiment all over again.

Responsibility for the frustration was operationalized to be a designation of guilt. It was felt that subjects would attribute responsibility to whom the experimenter designated since he was in a position to determine who was at fault and they were not. Responsibility for the frustration was induced for each of the three conditions by the experimenter who either 1) admitted he was at fault for the error, 2) admitted that he, but also the library was at fault, or 3) admitted that he was not at fault and did not know who was to blame.

The indicator for aggression was anger. Anger "refers to the emotional state, presumably resulting in frustration, which in the presence of a suitable cue, instigates aggressive responses".¹

Aggression was operationalized by means of two bogus questionnaires
designed to measure anger against five targets; the experimenter,
Waldo Library, the experiment, self performance, and the instructor
whose course the subjects were in.

One week before the experiment the instructor handed out the
Instruction Sheet to Prepare Subjects for the Experiment. (Appendix
A). This handout informed the class that they would receive a letter
grade, which depended on how well one performed in the experiment,
and that this letter grade would amount to 10 percent of the final
grade. It was emphasized that the experiment grade might really be
of importance in borderline cases. The students were told to prepare
for this experiment by reading some articles which had been placed on
reserve at Waldo Library. To obtain the articles, they were told to
give the instructor's name and reading number #100 at the Library
reserve desk. It was also pointed out that a failure to appear for
the experiment would result in an "E" grade for the experiment. The
instruction sheet also gave the room number for the experiment and the
groups and times to which each student was assigned. Assignment was
made according to one's student number rather than one's name so as to
reduce the probability that subjects would be aware of who else was in
the group that they were assigned to.

All three conditions were run on the same evening, one right
after the other. In doing so, it was assumed that this would; 1)
reduce the likelihood of subjects clueing in other subjects as to the
real nature of the experiment and, 2) increase the continuity of the
conditions by scheduling them so close together that the pattern
presented in one would be most likely to be repeated in the following two.

In all of the three conditions, the subjects were seated in a classroom facing a screen and attendance was taken. The experimenter introduced himself and his assistant. He explained that the experiment was part of a project being conducted by a Western Michigan University professor. The subjects were then instructed to read step 1. Step 1 introduced the bogus experiment. It explained to the subjects that they were taking part in an on-going study on the effects of Rorschach "fooling". It also suggested that the assigned readings for the experiment should have familiarized them with the Rorschach Ink Blot Test. Step 1 described the experiment as being: "Since it has been determined that 'fooling' is possible with the Rorschach, the next step is to determine whether or not those subjects who are asked to 'fool' the tester, give responses that can be standardized".

After the subjects read Step 1, the experimenter addressed all of the conditions as follows:

The directions that you've just read are what I am asking the other two groups to do. They are the experimental groups. You are the control group and I have a special task for you. Instead of trying to perceive the Rorschach Ink Blot as you feel a normal person would, I want you to try to perceive these ink blots as you feel a mentally ill person would. I'm asking you to do this so that I'll have a basis for comparison with the experimental groups. Remember to respond to each ink blot as you feel a mentally ill person would and be sure to put down a justification for each response that you make.

Simultaneously, the assistant handed out a slip of paper that described essentially the same thing. This written information was provided for the subjects so that they could refer to it if they
needed to in order to remember their instructions.

This change in directions was inserted into the experimental design, because it was found in the pretest, that some subjects had anticipated that in an experiment, something unusual is supposed to occur. By changing the directions during the experiment and making it appear that each of the conditions was special from the other two, it was assumed that this would act as a diversion from the experimental manipulations which would be following it.

In all of the conditions while the ink blots were being shown, the experimenter was called away by a messenger with news of an urgent telephone message. The assistant continued to show the ink blots; and upon returning, the experimenter looked visibly disturbed. While the assistant finished showing the ink blots, the experimenter expressed his disappointment to the assistant, that something had gone wrong, just loud enough for the group to get the impression that something had happened. The experimenter then told the subjects:

I just spoke with Dr. Schellenberg who's in charge of this project and we've run into a little difficulty. One of the articles entitled "Normal and Schizophrenic responses to the Rorschach" was not placed on reserve.

At this point, one of the three conditions was introduced.

Full responsibility

In this situation the instigator and the transmitter are the same. The experimenter tells the group, "I guess I forgot to place it on reserve."

Shared responsibility
In this situation the transmitter takes only partial responsibility for the frustration. He tells the group:

Both the library and I are responsible for this error. After I phoned in the articles, I realized that I had forgotten to place one on reserve, so I phoned them to place the forgotten article on reserve along with the other two. Apparently, they didn't do this, but then again, we're both responsible for this error.

No responsibility

In this situation the transmitter claims to be not at all responsible for the frustration. He tells the group:

I can't figure out how the mixup occurred. I phoned in the articles last Wednesday. The next day I went down to the reserve desk and they showed me my request and a copy of each of the articles. Really, I just don't know what happened.

For all the groups the experimenter then said:

It was the most important article for your justification which was to be the basis for your grade. You may have to do the experiment all over again if the results are not significant. I'll have to explain the mistake to Dr. MacDonald (their instructor) since he had planned to give you a grade on the quality of your justification. I don't know on what basis he'll award a grade now.

The experimenter then asked the subjects to fill out two sets of questionnaires before they left. The first questionnaire was presented as an evaluation of the experimenter, the experiment, the instructor who required them to participate in the experiment, and self performance. (Appendix B). The second questionnaire was presented as being not directly related to the experiment, but rather it concerned a pilot study being conducted to determine whether there was an issue among college students concerning the effectiveness and
quality of certain Federally supported campus facilities. This questionnaire was concerned with three Federally supported campus facilities: Waldo Library the Health Center and the Campus bookstore. (Appendix C). This purported purpose permitted the assessment of aggression against Waldo Library. The questions concerning the Health Center and the Campus bookstore were not analyzed as they were only included to increase the credibility of the bogus questionnaire.

After both questionnaires had been administered, each of the subjects were given a slip of paper containing the comments "We would like to see if the objective of this experiment has been made clear to you. State, in your opinion, the purpose of this experiment."

Data Analysis

In analyzing the data, one subject was omitted from condition one, one from condition two, and three from condition three because they had strong suspicious as to the real nature of the experiment, and they revealed that they did not believe the purported explanation of the experiment. Since this left the conditions with unequal means, one subject was randomly eliminated from both conditions one and two. This left an N of 25 for each of the conditions.

An analysis of the results were obtained as follows. First, questions were grouped in terms of the target against whom they reflected anger against. Then a mean score for each target was obtained for each subject. A group mean score was then computed for all subjects in each condition for each of the targets. This group mean
score for each target was utilized in the analysis of the results of this study. A one way analysis of variance was computed for each of the targets across all three conditions as a test of significance.
CHAPTER III

RESEARCH RESULTS

Hypothesis and Research Variables

The hypothesis of this study predicts that given frustration, the expression of aggression toward a target is directly related and in proportion to the perception of responsibility of the target for the frustration. Frustration, in this study, was held constant across all three conditions. Responsibility was the only independent variable of this study.

Responsibility was operationalized to be a designation of guilt on the part of the experimenter. It was assumed that the subjects would attribute responsibility to whomever the experimenter designated. In condition 1, the experimenter took full responsibility for the error; in condition 2, he admitted that he and the library were at fault; and in condition 3, he admitted that he was not at fault and did not know who was to blame. Indices of aggression towards the five targets - the experiment, the experimenter, self, Waldo Library, and the instructor, are presented in Table I. In this table, the mean level of aggression for each target is given for each of the conditions of responsibility.

General Pattern of the Results

In Table I the general pattern, while not statistically
significant, suggests that there is an increase in the mean level of aggression for each target across conditions. In the full responsibility condition, the mean level of aggression for each target is the lowest, whereas in the no responsibility condition, the mean level of aggression for each target is the highest. The only exception to this pattern is the experiment as a target. This target differs from the rest in that its highest mean level of aggression is in the shared responsibility condition rather than the no responsibility.

Table I

Mean Level of Aggression Against Five Available Targets for all Experimental Conditions

<table>
<thead>
<tr>
<th></th>
<th>Full Responsibility</th>
<th>Shared Responsibility</th>
<th>No Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimenter</td>
<td>2.22</td>
<td>2.26</td>
<td>2.42</td>
</tr>
<tr>
<td>Waldo Library</td>
<td>2.50</td>
<td>2.78</td>
<td>2.75</td>
</tr>
<tr>
<td>Experiment</td>
<td>3.09</td>
<td>3.40</td>
<td>3.36</td>
</tr>
<tr>
<td>Self</td>
<td>2.70</td>
<td>2.72</td>
<td>3.14</td>
</tr>
<tr>
<td>Instructor</td>
<td>2.38</td>
<td>2.61</td>
<td>2.64</td>
</tr>
</tbody>
</table>

N=25          N=25          N=25
Research Predictions and Results

It was expected that the experimenter would receive a higher mean level of aggression in condition 1 than in either of the other two conditions since in conditional, he was the only one responsible for the frustration. Unlike what was predicted, the experimenter received less aggression in condition 1 than either of the other two conditions. Condition 3 was anticipated to receive the lowest level of aggression since the experimenter was not at all responsible in this situation. Yet, condition 3 experienced the highest mean level of aggression for the experimenter. These results were not expected.

It was expected that the library would receive the highest mean level of aggression under condition 2 since in condition 2, the library was also held to be partially responsible. Whereas in the other two conditions, the library was not involved. As was predicted, the library did receive the highest mean level of aggression in this condition (2.78), but this mean was not much greater than the mean for condition 3 which was 2.75. This difference was not statistically significant.

One interesting result is the highest mean level of aggression against the self in the nonresponsibility condition 3. Relative to the other targets, the self has the most variation in aggression means. In conditions 1 and 2 the mean level of aggression is quite similar being 2.7 and 2.72 respectively. But, in condition 3 it is a 3.14. It is interesting to speculate what might be occurring in this situation. It could be that as responsibility becomes more ambiguous,
a person is more likely to blame himself.

Clearly, the results are not very promising for the study hypothesis. A one way analysis of variance was computed for each of the targets across all three conditions to see whether there was a likelihood that other factors had influenced the subjects. The results are given in Table II.

Table II

Analysis of Variance for Each of the Five Available Targets Across All Conditions

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waldo Library</td>
<td>2</td>
<td>1.4323</td>
</tr>
<tr>
<td>Experimenter</td>
<td>2</td>
<td>0.925</td>
</tr>
<tr>
<td>Self</td>
<td>2</td>
<td>1.728</td>
</tr>
<tr>
<td>Instructor</td>
<td>2</td>
<td>0.613</td>
</tr>
<tr>
<td>Experiment</td>
<td>2</td>
<td>1.453</td>
</tr>
<tr>
<td>Error</td>
<td>72</td>
<td></td>
</tr>
</tbody>
</table>

Significant .05 level >3.11

*None of the Analysis of Variance were statistically significant.
Summary

To summarize, the findings of this study were not supportive of the study hypothesis, nor were they statistically significant. The general pattern of the findings indicates an increase in the level of aggression for all targets across conditions with condition 1 experiencing the lowest mean level of aggression and condition 3 the highest. The study hypothesis predicted that for the experimenter, the mean level of aggression should be highest in condition 1 and decrease across conditions. Furthermore, for the library, the study predicted a curvilinear pattern with the level of aggression being lowest for conditions 1 and 3. Neither of these predictions were supported by the findings.
CHAPTER IV

DISCUSSION AND IMPLICATIONS

Review Of The Theoretical Orientation

The present study was designed to test the hypothesis that:
given frustration, the expression of aggression toward a target is
directly related and in proportion to the perception of responsibili-
ty of the target for the frustration. This hypothesis, formulated
after a review of the literature on the role of arbitrariness in the
frustration-aggression paradigm, led this author to suspect that
previous studies had misperceived what was actually occurring.

This author is not questioning the findings that show that
aggression is greater under arbitrary frustration as opposed to non-
arbitrary frustration. What is being questioned is the traditional
concept of arbitrariness. Previous studies on arbitrariness have
tended to conceive of arbitrariness as being synonymous with "reason-
ableness". With this conceptualization, it is assumed that in a
nonarbitrary situation, the social nature of the situation prohibits
direct aggression against the instigator of the frustration. Previous
findings seem to indicate that aggression is inhibited under nonarbi-
trary frustration. One interesting problem of this inhibition
interpretation is that, when the strength of the inhibitory social
pressures against expressing aggression were reduced (Burnstein and
Worchel), aggression under the nonarbitrary condition still did not
equal the arbitrary condition. This finding is inconsistent with an
inhibition interpretation. If aggression is being inhibited, reducing the strength of the inhibitory social pressures against expressing aggression, should result in the occurrence of that aggression which was being inhibited.

This study is concerned with a different conceptualization of arbitrariness. Arbitrariness was interpreted in terms of the perception of responsibility. This conception not only explains the finding of less aggression under nonarbitrary frustration, but it also explains the finding of inhibition.

Under nonarbitrary frustration, aggression seems less intense because aggression is shared. In reality, aggression is not lessened under nonarbitrary frustration, though it is less intense against the predicted target. It is important to make a distinction between the transmitter of the frustration and the perceived instigator. Thus under arbitrary frustration, the transmitter is perceived to be the one and only cause of the frustration. Whereas under nonarbitrary frustration, although the transmitter is clearly recognized, he is not perceived to be fully responsible for the frustration or he may not be perceived to be responsible at all. In such a situation, aggression directed against the transmitter will seem to be less intense than under arbitrary frustration, simply because aggression will be distributed to other guilty targets.

Previous studies concerned with arbitrary aggression have failed to make a distinction between the transmitter and the perceived instigators. By failing to do so, they may have misinterpreted their findings. Under nonarbitrary frustration, they found that
aggression was directed at other objects besides what this study has termed the "instigator". Because these studies failed to conceive of these objects as instigators, they interpreted aggression against them to be due to displacement resulting from inhibition against aggression against the transmitter, because of the nature of the social situation. This study has rejected the hypothesis of response inhibition under nonarbitrary frustration and proposes instead that, what was interpreted as being displacement, is really direct aggression against a perceived instigator.

Limitations of the Research Design

The results of this study have not supported the hypothesis. A possible explanation for this lack of significant findings is that there was some shortcoming in the research design. This does not mean to suggest that the hypothesis of this study is true, only that perhaps this study failed to adequately test it. None of the results of this study were significant. This is unusual since other research concerned with arbitrariness, have found their results to be significant. While this study was not really interested in testing the arbitrariness conceptualization in terms of reasonableness as these studies were, this study design was set up to test both conceptions. In previous research, arbitrariness was found to be related to the evocation of an aggressive response. Yet, in this study, the mean level of aggression against the experimenter (the instigator in this case) was lower under the full responsibility condition than either the shared, or no responsibility condition. This is inconsistent
with either conception of arbitrariness.

Regardless of whether or not a study's results are significant, every study is faced with the problem of identifying these factors which might have invalidated the results. The following discussion will be concerned with identifying those factors.

One issue of this design concerns the manipulation of frustration. In this study, frustration was held constant across all three conditions. The experimenter administered frustration to the subjects by telling them that they had read an incorrect article in preparation for the experiment, and that they might have to come back and run through the experiment again if the results were inconclusive. It was assumed that the indicator of frustration had face validity. Unfortunately, no check was made to determine if the subjects were really frustrated. If they were not, then the subsequent manipulation of the perception of responsibility would have been meaningless.

Another problem of this study focuses on the appropriateness of the indicators of the research concepts. The indicator selected for the concept "perception of responsibility" was a designation of guilt. In this experiment, the three conditions varied in terms of who was designated by the experimenter as responsible for the frustration. It was assumed that this designation of guilt was a true indicator of the perception of responsibility. In other words, it was assumed that the subjects would heed the experimenter and attribute responsibility to whom he designated. Hindsight suggests that this assumption overlooks the obvious possibility that the subjects did not attribute responsibility as was intended. It is possible that the
subjects did not believe the experimenter.

In condition 1, the experimenter assumes full responsibility. It is possible that the subjects were suspicious as to whether or not the experimenter was telling the truth. Did the subjects perceive the experimenter as being a good guy by accepting the full blame, when in reality he was not 'really' solely responsible? If so, the norm to accept blame for others might mitigate aggression towards the experimenter.

In condition 2, the experimenter only accepts partial blame but also tries to implicate the library. Do subjects feel he is just trying to get off the hook by blaming someone else in addition to himself?

In condition 3, the experimenter tries to completely free himself from being implicated in the matter. Do the subjects in this condition suspect he is 'really' mostly responsible and this is the reason he is trying to avoid any blame?

The results, while not significant, do support the direction of the above argument. The least amount of aggression toward the experimenter is in condition 1. The most amount of aggression is manifest toward the experimenter in condition 3.

From the previous discussion, it would seem that a more appropriate indicator to utilize would have been to determine who the subjects really attributed responsibility to. This could probably have been performed through the use of a questionnaire. This indicator could have been utilized along with an indicator such as the one this study selected. It would have provided a check as to the
validity of the second indicator, and it would have provided insight as to how well those perceived responsible by the subjects correspond to those identified by the experimenter.

The dependent variable of this study was anger. Anger refers to an emotional state of an individual and as such, it is a much more elusive variable than one that can be visibly observed. From a practical standpoint, the variable anger has greater utility for this study. It was felt that anger has greater utility for this study. It was felt that since the subjects were students and one of the primary instigators was an experimenter, the variable anger would more likely measure hostility than direct aggression, since the students might fear retaliation if they aggressed directly. Yet, a variable such as anger poses some difficulty. Since this variable is not directly observable, an indirect measure has to be devised to tap this emotional state. Herein lies the problem; validity of the indicator is more difficult to assess in this situation.

In this study, the instrument utilized to measure anger was the questionnaire. It was assumed that the questions had face validity. But validity is very difficult to assess when indirect measures have been utilized. It would have probably been more appropriate to utilize a more observable indicator such as physical aggression. If this had been done, there would have been less doubt as to the validity of the indicator.

Implications

The implications of this study are twofold. The first impli-
cation is that the results of this study, while not supporting the study hypothesis, also leave the question open as to whether this new conception of arbitrariness in terms of responsibility, has any utility in the Frustration-Aggression paradigm.

The second major implication of this study is that scientific evidence either supportive or nonsupportive of a study hypothesis, requires a carefully constructed research design. In this chapter, this writer has attempted to indicate the major factors that might have invalidated the results of this experiment. A researcher must attempt to account for the possible problem factors before he conducts his experiment. In this way, he has more assurance that his results are valid whether or not they support his predictions.
Summary

This paper has been concerned with: (a) presenting a different conception of arbitrariness in terms of responsibility, (b) using this new conception as a paradigm in which to reinterpret the previous arbitrariness literature, (c) describing an experimental study which attempted to test the effects of variables suggested by this new interpretation upon aggression, and (d) identifying those factors of the experimental design which may have been sources of invalidity.
BIBLIOGRAPHY


Next week Wednesday, March 31, you will be participating in an experiment. Depending upon your performance, you will be given a grade which will amount to 10% of the total grade for this course. This means that each exam will count 30%. Although 10% may not seem like much, it can make a difference in your final grade, especially for borderline cases. To prepare for the experiment, there are some readings on reserve at Waldo Library which are necessary for effective participation. You will want to read these articles carefully before you appear for the experiment. The articles are located at the reserve desk (Waldo Library). Ask for Mr. MacDonald's reading no. #100.

Failure to show up for the experiment will automatically result in an "E" which will be averaged into your total grade as indicated above. Please read the list of times below so that you can meet with the group to which you have been assigned. You have been assigned by student number rather than by name.

(These directions were followed by the list of student numbers assigned to each of the three groups).
APPENDIX B

The experiment that you have just taken part in is part of a study on "fooler" effects on Rorschach diagnosis being conducted at Western Michigan University. You are among the first groups at Western participating in this experiment. Therefore, in an effort to continually improve this experimental design, we are asking that all subjects give their evaluation of this experiment, the experimenter, and self-performance. This questionnaire will be utilized by all subjects involved in this project as it has been found to be the most useful measure of evaluation. Your opinions will remain anonymous and will directly affect the design for the next set of experiments conducted in regards to this research. Since subjects involved in this project have been drawn from different social psychology classes we cannot assume that all groups are equally prepared. Therefore, your opinions concerning the instructor whose social psychology class you are currently enrolled in, are also being sought in order to determine how well prepared your specific group was in comparison to other groups involved in this experiment. Furthermore, your opinions will permit us to evaluate your instructor so that we will have some idea whether to utilize his classes for further research.
Directions: For each of the following questions circle the answer that you feel is most appropriate.

1. Do you feel that this experiment has contributed to your knowledge in social psychology?
   1) definitely yes
   2) probably
   3) uncertain
   4) probably not
   5) definitely would not

2. Do you feel that it is appropriate for your instructor of social psychology to require students to participate in experiments?
   1) definitely yes
   2) probably
   3) uncertain
   4) probably not
   5) definitely not

3. In your opinion, how would you judge the experimenter's skill in designing this experiment?
   5) very poor
   4) fair
   3) uncertain
   2) good
   1) excellent

4. If you were in charge of this experiment what would your feelings be about using this experimenter in future studies?
   1) definitely would keep this same experimenter
   30 indifferent
   4) would probably recommend changing experimenters
   5) definitely would not use this experimenter

5. Do you feel that your social psychology instructor would make a good experimenter?
   5) definitely would not
   4) probably would not
   3) uncertain
   2) probably would
   1) definitely would

6. How well do you feel that you performed in this experiment?
   1) excellent
   2) good
   3) uncertain
   4) fair
   5) poor

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7. If another experimenter had conducted this experiment do you feel that you would have performed:
   1) much better
   2) the same or a little better
   3) uncertain
   4) a little worse
   5) much worse

8. If your social psychology instructor were conducting an experiment of his own and needed subjects, would you volunteer to participate?
   5) definitely not
   4) probably not
   3) uncertain
   2) probably would
   1) definitely would

9. Did you enjoy participating in this experiment?
   1) definitely did
   2) probably did
   3) uncertain
   4) probably did not
   5) definitely did not

10. Do you feel that the experimenter demanded too much of your time?
    1) definitely did
    2) probably did
    3) uncertain
    4) probably did not
    5) definitely did not

11. In your opinion, did the experiment run smoothly?
    5) definitely did not
    4) probably did not
    3) uncertain
    2) probably did
    1) definitely did

12. Would you be interested in taking another course from your current social psychology instructor?
    1) definitely would
    2) probably would
    3) uncertain
    4) probably would not
    5) definitely would not
13. If this same experimenter were conducting another research project in the future, would you be willing to participate?
   1) definitely would
   2) probably would
   3) uncertain
   4) probably would not
   5) definitely would not

14. Assuming that you agree that it is okay to have students participate in experiments, do you think that they should be graded for their performance in the experiment or only given credit for participating?
   5) definitely not given a grade, but given credit
   4) probably not given a grade, but given credit
   3) uncertain
   2) probably given a grade
   1) definitely given a grade
Dear Student:

Many of the campus facilities that are available to college students are Federally supported. Little information has been collected on students' attitudes as to the effectiveness and quality of these facilities. In an effort to rectify this situation, a pilot study is being conducted at Western Michigan University for HEW on student attitudes towards Waldo Library, the Campus bookstore, and the Student Health Center -- three of the most commonly used facilities that are Federally supported. The results of this study will be used to determine if there is an issue concerning these facilities and if there is, an in-depth study will be conducted at a later time.

Background

1. Sex:
   a) male
   b) female

2. Age:
   a) 17 or younger
   b) 18
   c) 19
   d) 20
   e) 21
   f) 22 or older

3. Residency:
   a) Michigan
   b) out of state

Pilot study

1. Do you feel that the permanent personnel (nonstudents) working at the bookstore here at Western are helping students?
   a) strongly agree that they are concerned
   b) agree that they are concerned
   c) unsure that they are concerned

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Pilot Study #1-Continued

d) disagree that they are concerned
e) strongly disagree that they are concerned

2. In your opinion, do you feel that Waldo Library here at Western is run as effectively as those at other universities?
a) strongly disagree that it is
b) disagree that it is
c) unsure that it is
e) agree that it is
 e) strongly agree that it is

3. In your opinion, do you feel that the people in charge of the bookstore here at Western are responsive to student needs?
a) strongly disagree that they are
b) disagree that they are
c) unsure that they are
d) agree that they are
e) strongly agree that they are

4. Compared with other universities, do you feel that the health service facilities here at Western are:
a) better than most
b) about the same or a little better
c) unsure
d) not as good
e) much worse

5. If a situation occurred, would you recommend to others that they use Waldo Library given that other facilities are available which would serve their purposes?
a) strongly recommend
b) recommend
c) unsure
d) not recommend
e) strongly not recommend

6. If you became ill and were taken to the student health center here on campus, how much confidence would you have in the treatment you would receive?
a) very confident
b) confident
c) unsure
d) not too confident
e) not confident at all
7. How competent do you feel that the permanent staff at the bookstore is?
   a) very competent
   b) competent
   c) unsure
   d) not too competent
   e) not competent at all

8. How would you describe the sum total of your experiences at the library?
   a) satisfactory
   b) adequate
   c) unsure
   d) inadequate
   e) frustrating

9. When you need assistance at the bookstore here on campus, do you seek out student workers rather than the permanent staff for help?
   a) always seek help from student workers
   b) usually try to seek help from student workers
   c) unsure
   d) ask either for help
   e) ask a member of the permanent staff rather than a student worker

10. Assume for the moment that you are dissatisfied with the library services at Waldo Library, would you be likely to go so far as to demand that existing personnel (aside from student help) be replaced?
    a) yes
    b) might
    c) unsure
    d) probably not
    e) no

11. If you have ever made use of the health service facilities here at Western, do you feel that the staff is:
    a) not competent at all
    b) not too competent
    c) unsure
    d) competent
    e) very competent

12. Assuming that you were dissatisfied with the health service facilities here at Western and a representative from Health, Education and Welfare was to be on campus to seek out student opinions on the health service facilities available on campus, would you make an effort to meet him and discuss your complaints?
    a) yes
Pilot Study #12-Continued

b) might
c) unsure
d) probably not
e) no

13. If you answered "no" or "probably not" to these questions, would you sign a petition that expressed dissatisfaction with the health service facilities at Western which was to be presented to this representative?
   a) no
   b) probably not
   c) unsure
   d) might
   e) yes

14. If you were dissatisfied with the library services (at Waldo), would you be willing to support a proposal to freeze library staff wages until they improve existing services?
   a) yes
   b) might
   c) unsure
   d) probably not
   e) no

15. Do you feel that the permanent staff (nonstudents) working at Waldo Library here at Western are concerned with helping students?
   a) not concerned at all
   b) not too concerned
   c) unsure
   d) probably concerned
   e) definitely concerned