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## EFFECTS OF REACTANCE AND IMPRESSION MANAGEMENT ON EVALUATION OF A CARTOON

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The purpose of this paper was to investigate effects of psychological reactance in a feeling of humor. Especially, impression management interpretation of reactance was examined.

The subject saw a cartoon, read the (fictitious) message from his partner, and finally filled out a questionnaire which contained items such as humor rating of the cartoon. Threat to the subject's freedom concerning how to feel the cartoon was manipulated by the message from the partner. One half of the subjects received pressure that they were to feel the cartoon humorous (the High Threat condition). Others received no such pressure (the Low Threat condition). As to impression management, the subject in the Public condition was told that the partner was to be informed how the subject felt the cartoon. In the Private condition, the subject was told that none would know how he felt it.

The results were as follows:

(a) On the partner's intent to influence measure, an unexpected Threat  $\times$  Impression management interaction was obtained. That is, in the Private condition, the impact of the threat manipulation was weak.

(b) The subject's ratings of the cartoon showed no difference among conditions. Exercise of the threatened freedom (boomerang effect) did not occur.

(c) As a function of the threat manipulation, the subjects felt an increased amount of self-direction in regard to their own behavior. This was interpreted as an evidence of reactance arousal.

With respect to boomerang effect, these results supported neither impression management interpretation nor original reactance theory. From the standpoint of the latter, the results were interpreted as follows: Psychological reactance could be aroused in a feeling of humor, but in this experiment, the aroused reactance did not manifest itself through exercise of the threatened freedom (boomerang effect).

Additionally, felt self-direction in regard to one's own behavior turned out to be usable as another measure of reactance arousal.

The purpose of this paper was, firstly, to examine effects of psychological reactance in a feeling of humor.

Reactance theory (Brehm, 1966, 1968, 1976; Brehm & Brehm, 1981; Wicklund, 1974) assumes that individuals believe that they have a specific behavioral freedoms and proposes that if a freedom is threatened, the motive to reassert the freedom will

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be aroused. This hypothetical motivational state is called as psychological reactance.

The magnitude of the aroused reactance is a direct function of strength of freedom expectancy, importance of the freedom, strength of threat and implication of the threat to other freedoms.

Effects of the aroused reactance involve direct or indirect restoration of freedom, increased attractiveness of the threatened behavior, hostility toward the threatener, increased amount of felt self-direction, denial of threat and preservation of other freedoms.

In a context of social influence process, a threat to a behavioral freedom takes the form of "perception by an individual that there is pressure on him to behave in a specific way" (Brehm, 1968), in other words, perception of another person's intent to influence him. That is, perceived pressure to behave in this way constitutes a threat to the freedom to behave otherwise.

According to the theory, this threat will arouse psychological reactance. In this case, the aroused reactance will motivate the individual to restore the freedom to behave otherwise. One way of direct restoration of the threatened freedom is to do what was told not to do, that is, exercise of the threatened freedom (boomerang effect). Actual exercise of the threatened freedom enables him to demonstrate that the freedom in question is not lost. Therefore, it is expected theoretically that pressure to behave in this way results in a tendency to behave otherwise.

Reactance hypothesis, as noted above, has been repeatedly supported in various human behaviors. For example, it has been found that the direct exercise of a threatened freedom can occur in choosing one desirable object over another, helping behavior, self-disclosure and attitude change (Brehm & Sensenig, 1966; Jones, 1970; Archer & Berg, 1978; Snyder & Wicklund, 1976).

According to the theory (e.g. Wicklund, 1974, p. 2), it is further expected that reactance hypothesis may be also applicable to various feeling states such as pity and contempt. But few experiments have been reported, which examined effects of reactance in feeling states.

Leventhal & Mace (1970) investigated the effects of laughter on evaluation of a slapstick movie. The results showed that the male subjects evaluated the movie as less funny when they were instructed to laugh and when canned laughter was inserted. In terms of reactance theory, Leventhal & Mace's experiment suggested that reactance hypothesis could be applied to a feeling of humor, but its procedure was not a sufficient one for a reactance experiment in that, for one thing, strength of threat was not manipulated.

Imajo (1981) reported an experiment which was a direct test of reactance theory in a feeling of humor. The subject saw the cartoon, read the (fictitious) message from his partner, and finally filled out a questionnaire which contained items such as humor rating of the cartoon. Threat to the subject's freedom concerning how to feel the cartoon was manipulated by the message from the partner. One half of the

subjects received pressure that they were to feel the cartoon humorous (the High Threat condition). Others received no such pressure (the Low Threat condition). According to reactance theory, it was predicted that the cartoon would be evaluated as less humorous in the High Threat condition, but on the humor measure no difference between conditions was obtained as a function of the threat manipulation. On the other hand, the partner was perceived as significantly less "likable" in the High Threat condition. As Worchel & Andreoli (1974) had been pointed out, this derogation of the threatener was interpreted as an evidence of reactance arousal. Imajo (1981) concluded that reactance could be aroused in a feeling of humor, but that the aroused reactance did not manifest itself through the exercise of the threatened freedom.

The purpose of this paper was a further test of reactance hypothesis in a feeling of humor, especially, to examine impression management interpretation of reactance (Baer et al., 1980; Heilman & Garner, 1975; Heilman & Toffler, 1976). Although Wright & Brehm (1982) criticized this new approach from the original standpoint of the theory, the brief summary of impression management interpretation is as follows. Individuals do not want so much to preserve their free behaviors that are threatened with loss as they want to demonstrate or project their autonomy to someone who threatens it. Therefore, the purpose of the exercise of the threatened freedom (i.e. boomerang effect) is to demonstrate, not to themselves but to the threatener, that they are still free in spite of the threat. So it follows that, when the projection of autonomy to the threatener is impossible, no exercise of the threatened freedom will occur. After all, impression management interpretation asserts that a direct exercise of the threatened freedom can occur only when there are some means and opportunity to communicate with the threatener.

Another purpose of this paper was to examine usability of felt self-direction as a measure of reactance arousal. Although the most obvious measure of reactance arousal is a direct restoration of the threatened freedom, direct restoration is restricted by costs associated with it and by ease and likelihood of some other modes of freedom restoration, as Brehm & Behm (1981) pointed out. Therefore when the direct restoration is not likely to occur, employing some other measures of reactance arousal, which are available even in such a case, helps us to interpret results.

According to Brehm (1966), a person who experiences reactance will feel an increased amount of self-direction in regard to his own behavior. That is, he will feel that he can do what he wants, that he does not have to do what he doesn't want, and that at least in regard to the freedom in question, he is the sole director of his own behavior. Furthermore, although the effects of reactance are in large part determined by the condition under which the reactance is aroused, only the subjective effects such as increased feelings of mastery over one's fate, and increased desire for the threatened freedom may always be expected to occur whenever reactance is aroused. The former effect may correspond to the increased amount of felt self-direction.

Imajo (1981) attempted to use this felt self-direction as a measure of reactance arousal, but failed in showing its usability. That is, self-direction was, as had been predicted, felt more strongly in the High Threat condition, but it was felt rather strongly also in the Low Threat condition. So difference between conditions fell short of significance.

In this experiment, wording of felt self-direction measure was changed in order to prevent the scale ceiling effects.

Procedure of this experiment followed Imajo (1981), and to add to this, impression management variable (Private vs. Public) was manipulated.

According to impression management interpretation of reactance, the prediction of the results was as follows: In the Public condition, the greater the pressure to feel the cartoon humorous is, the less it will be rated as humorous. In the Private condition, humor ratings will not differ as a function of threat manipulation.

#### METHOD

*Subjects:* The subjects were 60 male Tohoku University undergraduates, who volunteered to participate in an experiment, entitled "Social aspects of feelings (In case of humor)."

*Procedure:* Upon arrival at the social psychology laboratory, the subject was given a booklet, which involved instructions, a cartoon and dependent measures, and an envelope containing a (fictitious) message from another subject. Instructions on the first page of the booklet informed the subject that the purpose of this experiment was to investigate whether people's feelings were influenced by knowing how other had felt under the same condition. For this purpose, the subject was led to believe that he participated in the experiment in pairs with another subject (the partner) and that his partner had already finished the experimental task. After rehearsing to fill out rating scales, the subject saw the cartoon, which was the same one as had been used in Imajo (1981). Next, the subject read "the partner's message" and finally filled out dependent measures.

The experimenter left the room as soon as he told the subject to see the cartoon.

*Manipulation of threat to freedom:* "The partner's message" was, in fact, prepared by the experimenter so as to manipulate threat variable.

The message for the High Threat condition was as follows:

I feel it humorous. Who can not feel it humorous? Anyway, this cartoon is very humorous !

In the Low Threat condition, the subject received the following message.

I feel it humorous. But I don't know how others may feel it. Anyway, this cartoon is humorous to me.

Although both messages indicated that the partner felt the cartoon humorous, the latter was neutral with respect to others' feelings. On the other hand, the former implied pressure to feel the cartoon humorous, therefore constituted a threat to the freedom not to feel it humorous.

*Manipulation of impression management:* In the Private condition, the subject was instructed that the experimental data would be kept secret, and that the partner could not know how the subject felt the cartoon. In the Public condition, the subject was led to believe that the partner was to be informed how the subject felt the cartoon, when he came to the laboratory again.

*Dependent measures:* The subject rated the cartoon in terms of humor, decency and wittiness. Perceived intent to influence of the partner served as an item for check on the threat manipulation. As the measures of reactance arousal other than direct restoration, likability of the partner, and felt self-direction were employed. Each rating was answered by circling an X on a 7-point scale (from -3 to +3).

## RESULTS

*Check on the threat manipulation:* Perceived intent to influence measure was worded:

To what degree do you think that the partner was trying to force you to feel as he felt ?

As Table 1 indicates, the subjects perceived greater intent to influence of the partner in the High Threat condition than in the Low Threat condition. A 2 (Low vs. High Threat)  $\times$  2 (Private vs. Public) analysis of variance yielded a significant main effect for threat variable ( $F=30.49$ ,  $df=1/56$ ,  $p<.01$ ). Further, a Threat  $\times$  Impression management interaction was significant ( $F=6.03$ ,  $df=1/56$ ,  $p<.05$ ). This interaction was an unexpected one and meant that the impact of the threat manipulation was weak in the Low Threat condition. That is, the threat manipulation was successful only in the Public condition.

Table 1. Mean ratings of intent to influence of the partner

	Low threat	High threat
Private	-0.80† (1.68)‡	0.53 (1.82)
Public	-2.07 (0.68)	1.40 (1.99)

† The higher the mean, the more perceived intent to influence (from -3 to +3).

‡ Figures in parentheses indicate *SD*.

*Ratings of the cartoon:* The mean ratings for the cartoon in terms of humor, decency and wittiness are shown in Table 2. The results from the Public conditions indicated that, even though very slightly, the cartoon was rated less positively in the High Threat condition on all these measures. But no statistically significant tendency was obtained.

Table 2. Mean ratings of the cartoon in terms of humor, decency and wittiness

	Low threat	High threat
Private		
Humor	1.53† (0.88)‡	1.40 (1.25)
Decency	-0.13 (0.62)	0.20 (0.40)
Wittiness	0.33 (1.35)	0.93 (1.48)
Public		
Humor	1.60 (1.20)	1.40 (1.62)
Decency	-0.13 (0.96)	-0.47 (1.09)
Wittiness	0.93 (1.18)	0.87 (1.09)

† The higher the mean, the more rated humor, decency and wittiness respectively (from -3 to +3).

‡ Figures in parentheses indicate *SD*.

*Likability of the partner:* The likability measure indicated a marginally significant Threat×Impression management interaction ( $F=3.67$ ,  $df=1/56$ ,  $.05 < p < .10$ ). As Table 3 shows, only in the Public condition, the likability of the partner decreased, as the perceived intent to influence increased.

Table 3. Mean ratings of likability of the partner

	Low threat	High threat
Private	0.40† (0.49)‡	0.87 (1.26)
Public	0.40 (0.80)	-0.07 (0.93)

† The higher the mean, the more perceived likability of the partner (from -3 to +3). Negative value indicates disliking for the partner.

‡ Figures in parentheses indicate *SD*.

*Felt self-direction:* The results of the felt self-direction are shown in Table 4 and Table 5. The statements A and B were worded, respectively, as follows:

It seems that the partner ordered me to feel in a specific way, so I feel displeasure (A).

I don't want anybody to interfere in how I feel things (B).

With respect to the statement A, a main effect for threat variable was significant

Table 4. Mean ratings of self-direction  
(Statement A)

	Low threat	High threat
Private	-1.27† (1.39)‡	-0.47 (1.78)
Public	-1.80 (1.05)	-0.73 (1.77)

† The higher the mean, the more felt self-direction  
(from -3 to +3).

‡ Figures in parentheses indicate *SD*.

Table 5. Mean ratings of self-direction  
(Statement B)

	Low threat	High threat
Private	1.20† (1.11)‡	1.67 (1.45)
Public	1.27 (1.39)	1.80 (0.75)

† The higher the mean, the more felt self-direction  
(from -3 to +3).

‡ Figures in parentheses indicate *SD*.

( $F=5.23$ ,  $df=1/56$ ,  $p<.05$ ). Although the data of the statement B yielded no significant main effect for threat variable ( $F=2.41$ ,  $df=1/56$ ,  $p<.20$ ), both revealed that greater self-direction was experienced in the High Threat condition.

## DISCUSSION

Prediction of impression management interpretation was not supported. But at the same time, this means that reactance hypothesis with respect to humor rating also was not supported, in that the exercise of the threatened freedom (boomerang effect) did not occur at all.

Unexpectedly, it was found that the impact of the threat manipulation was weak in the Private condition. This interaction may be attributed, for example, to the difference between the Private and Public conditions in the degree of the two persons' relationship. That is, the communication between the subject and the partner was, in the Private condition, a one-way message from the partner to the subject, while in the Public condition, a mutual exchange of feelings aroused by the cartoon. This difference might result in the different level of susceptibility to "the message from the partner", which was the sole concrete of the two persons' relationship and constituted the threat manipulation. But further research is necessary, because no other paper has reported such an interaction.



As the measures of the aroused reactance other than the exercise of the threatened freedom (boomerang effect), hostility toward the threatener and felt self-direction have been known. The likability of the partner measure revealed that, in the Public condition in which the threat manipulation was successful, likability decreased slightly as a function of the threat manipulation. But this tendency was statistically not a clear-cut one. On the other hand, an increased amount of self-direction was felt in the High Threat condition, regardless of the impression management manipulation. This means that psychological reactance was aroused in this experiment. Further, even in the Private condition in which the impact of the threat manipulation was weak, felt self-direction increased similarly. This suggests that felt self-direction is very susceptible as a measure of reactance arousal.

In the Public condition in which the exercise of the threatened freedom had been predicted, there was no difference in the ratings of the cartoon as a function of the threat manipulation. This means that the aroused reactance did not manifest itself through the exercise of the threatened freedom. It may be attributable to the fact that it is difficult to alter feelings once experienced, by one's own decision making. In this experiment the subject read "message from the partner" after he had seen the cartoon. That is, the freedom not to feel the cartoon humorous was threatened, after his own feelings about it had been already established. Because this cartoon had been known to be felt as humorous almost without exception, it was necessary for the exercise of the threatened freedom in this case to reject his own feeling that the cartoon was humorous. But, during the postexperimental interview, about 20% of the subjects pointed out that, although the partner's message influenced them in some way, they filled out after all as they felt for themselves. This suggests that the feelings once experienced may not be likely to be greatly influenced by reactance motivation. But it is worth noting that the two subjects, who showed rather strong boomerang responses (that is, they rated the cartoon on the humor measure as -2 and -3, respectively), were among those in the Public-High Threat condition, as had been predicted.

In sum, it was showed again in this experiment that reactance was aroused in a feeling of humor, but that the aroused reactance did not manifest itself through a direct exercise of the threatened freedom. It means that this experiment replicated Imajo (1981) in that only subjective effects of reactance could be detected. But the evidence of reactance arousal had been hostility toward the threatener in Imajo (1981), on the other hand in this experiment it was an increased amount of felt self-direction, which turned out to be a usable measure for the theory. After all, based on these two experiments, it may be concluded that reactance can be aroused in a feeling of humor.

But it remains still unclear through which way the reactance, aroused in a feeling of humor, manifest itself. Especially, from a theoretical standpoint, it is an important

problem whether a direct exercise of the threatened freedom (boomerang effect) can occur in a feeling of humor.

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