

Freedom and Reactance in Feeling States

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FREEDOM AND REACTANCE IN FEELING STATES

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In this paper, it was attempted to examine freedom and reactance in feeling states. In the introduction, two factor view of freedom expectancy was proposed. According to this view, freedom expectancy has two aspects, that is, free-will doctrine and perceived self-controlability of behavior. Results of the factor analysis, carried out in Experiment 1, supported this view. The purpose of Experiment 2 was to examine how people would expect freedom in various feeling states. It was found, consistently in feeling states, that free-will doctrine was felt strongly, but that perceived self-controlability of behavior was rather weak. This discrepancy between two aspects of freedom expectancy implied that reactance could be aroused in feeling states but that the reactance aroused was less likely to result in boomerang effect. In Experiment 3, a direct test of reactance hypotheses in feeling states was attempted with respect to humor. *Ss* received pressure to feel the stimulus cartoon humorous. As a function of threat manipulation, derogation of threatener was found, but there was no difference in humor ratings of the stimulus cartoon. To sum up, in this paper, it turns out that reactance can be aroused in feeling states, but it remains unclear whether the reactance aroused in feeling states can result in boomerang effect.

INTRODUCTION

Psychological reactance theory (Brehm, 1966, 1976; Wicklund, 1974) assumes that when a person feels free to engage in a range of behaviors, pressure to behave in a specific way constitutes a threat to his behavioral freedom and results in a motivational state directed toward the restoration of the freedom infringed. This hypothetical motivational state is called psychological reactance.

A person who experiences reactance will feel an increased amount of self-direction and attempt to restore freedom through whatever means may be available and appropriate.

Predictions of reactance theory are often incompatible with common sense and even appear to be strange. For example, reactance theory predicts that the more one is asked for help, the less he volunteers to help, and that one is persuaded by another person who shares his opinion into abandoning one's initial position.

Because of its unique predictions, it is safe to say that reactance theory has important implications particularly for understanding irrational aspects of human behavior.

Investigations in the past have supported reactance hypothesis repeatedly with respect to, for example, choosing one desirable object over another, choosing one molar instrumental act over another and holding whatever attitude one desires (Hammock & Brehm, 1966; Jones, 1970; Snyder & Wicklund, 1976).

Although it has been demonstrated that reactance could be aroused in various behaviors, the range to which reactance theory can be applied seems not to be sufficiently clarified, in the light of the original perspective of the theory.

Reactance theory deals with an individual's free behaviors. According to Brehm (1966), the concept of behavior includes any conceivable act, and behaviors may be characterized as "what one does (or doesn't)," "how one does something," or "when one does something." And Wicklund (1974) pointed out that behaviors which reactance theory could deal with involved not only molar instrumental acts but also attitudes and emotions.

As stated above, it is known that reactance theory can be applied to molar instrumental acts and attitudes.

On the other hand, it seems that no experimental research has been conducted which attempted to clarify whether reactance theory can be applied to emotional or feeling states. Wicklund (1974) asserted that people could easily have freedom in regard to feeling of pity, contempt, and similar states. Is that true? Even if people expect emotional freedom, can any reactance effects be observed against infringement on emotional freedom, as reactance theory hypothesizes?

The purpose of this paper is a direct test of the reactance theory hypotheses in feeling states.

When reactance effects are examined in feeling states, general problems of reactance theory are also largely concerned with. According to Brehm (1976), reactance theory has a number of problems concerning the definition of freedom, what constitutes a threat to freedom, how reactance may manifest itself in different situations, and so on.

Among these, it is the first and the third problems that this paper directly deals with. And as described later, the third problem has much to do with the first one. So, first of all, the first problem is focused on here.

Behavioral freedom is the central concept of reactance theory, and reactance cannot be aroused without freedom expectancy. Therefore freedom expectancy is the precondition of reactance arousal. But in the literature on reactance, even though some descriptions about the nature of freedom are seen here and there, no clear formal definition of freedom seems to be found.

But putting these descriptions together, two aspects of freedom expectancy appear to be assumed in reactance theory, that is, free-will doctrine and perceived self-controlability of behavior. The former term was used also by Wicklund (1974), but the latter one is used in this paper for convenience, because no appropriate term was found in the literature in the past.

In regard to free-will doctrine, which is the first aspect of freedom expectancy,

Wicklund (1974) stated, "...humans often believe and act as if they are their own masters — that they can control and master their own fate." In another place he stated further, "... individuals believe they can significantly control their own destinies, or at least that they can control many specific behaviors". Additionally the following statement may also refer to free-will doctrine: "... people have the subjective experience of freedom to do what they want, to do it in the way they want, and to do it when they want in regard to limited and specifiable areas of behavior" (Brehm, 1966).

That is, the very nature of free-will doctrine is that people want to decide for themselves what they do, and that they believe they can do so. In other words, free-will doctrine may refer to a belief in self-control with respect to the behavior in question. In this context, freedom may be defined as "self-control". Namely, reactance is an individual's response to infringement from others upon his self-control or autonomy of behavior. And the behaviors under an individual's self-control are his free behaviors.

After all, it is because of free-will doctrine that, when behavioral freedom is infringed, a person will experience an increased amount of self-direction feeling and further be motivated to restore the freedom infringed. In this sense, free-will doctrine is the primary assumption of reactance theory.

On the other hand, as Wicklund (1974) suggested, it is one thing that people believe they can control their behaviors, and that they can do so in fact is another. The second aspect of freedom expectancy, that is, perceived self-controlability of behavior deals with this latter problem, concerning whether people can control their behaviors in fact.

According to Wicklund (1974), the very nature of freedom implies the person's potential to alter his present situation. And in the place where he suggested that free behavior included not only molar instrumental acts, he stated, "Also included are emotions, attitudes, and any other feeling states of organism, provided that the organism feels the power to alter these feeling states as he sees fit." That is, if a person does not feel that he can alter his present situation as he sees fit, he is unfree with respect to the behavior in question. In this paper, the term, self-controlability of behavior is used synonymously with the person's potential to alter his present situation as he sees fit. Therefore, if a behavior is self-controlable for a person, he is free in regard to the behavior. After all, perceived self-controlability of behavior is an individual's estimation regarding the possibility that self-control over the behavior in question may be carried out.

Thus in the context of reactance theory, freedom expectancy has two aspects, that is, free-will doctrine and perceived self-controlability of behavior. Although such discrimination is conceptionally possible, if this discrimination does not enhance information which we can obtain concerning freedom expectancy, such discrimination turns out to make little sense.

In recent two experiments (Sullivan & Pallak, 1976; Pallak & Sullivan, 1979), which dealt with reactance effects in attitudes, it was found that commitment to one position tended to reduce the freedom to adopt other positions. Taking the case of this let us consider the significance of the discrimination between free-will doctrine and perceived self-controlability.

For a person who committed firmly it is virtually impossible to change his opinion away from this present position. That is, he has no freedom expectancy as perceived self-controlability. So it seems that there is no possibility that the reactance aroused may be observed as exercise of the freedom infringed, that is, boomerang effect.

On the other hand, if someone asks him, "Then, you have no freedom with respect to your attitude in this issue, do you?", he will probably object as follows: "Very far from it! I'll never change my present position, but this position is a product of my own free choice. And I'm free to persist in keeping whatever position I like." In this case it is safe to say that he has freedom expectancy as free-will doctrine.

When freedom expectancy is not divided into free-will doctrine and perceived self-controlability of behavior, a person who committed firmly is considered to expect little freedom, so there is virtually no room for reactance to be aroused. On the other hand, when freedom expectancy is discriminated as above, he is considered to expect some freedom as free-will doctrine, so reactance can be aroused. In this case the reactance aroused may be observed, for example, as derogation of threatener.

Thus it is useful to divide freedom expectancy into free-will doctrine and perceived self-controlability of behavior, in that it improves the predictive power of reactance theory.

Assuming the two factor view of freedom expectancy stated above, in this paper, it was attempted to examine freedom and reactance in feeling states.

EXPERIMENT 1

Two factor view of freedom expectancy was proposed in introduction. Two factors of freedom expectancy are firstly free-will doctrine, that is, a belief in self-control with respect to the behavior in question, and secondly perceived self-controlability of behavior, that is, an individual's estimation regarding the possibility that self-control over the behavior in question may be carried out. In other words, the former means to what degree an individual believes that it is a matter of his own choice what to do, and the latter means to what degree he feels that it is possible to do so as a matter of fact.

The present paper is based on two factor view of freedom expectancy summarized above, but this view is only a hypothetical one. For further discussion, first of all, it is necessary to verify two factor view of freedom expectancy.

Later in Experiment 2, it will be investigated how freedom is expected in various feeling states. It seems to be very tiresome for Ss to answer the identical questions repeatedly with respect to all feeling states examined. In order to avoid this, it may

be useful to identify the items by which two factors of freedom expectancy are efficiently represented, respectively.

In sum, the purpose of Experiment 1 was to show that freedom expectancy has the two factors, that is, free-will doctrine and perceived self-controlability of behavior. Additionally it was attempted to select freedom expectancy scales.

METHOD

Subjects: *Ss* were 201 undergraduates at the University of Tohoku Gakuin. The questionnaire was administered as a part of the lecture course in psychology. Two *Ss* were deleted from the analysis, because they failed to complete all the dependent measures. As a result of this deletion, the data from 199 *Ss* were usable for final analysis.

Procedure: Ten statements which were employed for this research are shown in Table 1. Half of them were thought to be corresponding to free-will doctrine, and the rest to self-controlability of behavior, respectively. A questionnaire, entitled "On Feeling and Emotion," contained these ten items in random order. *Ss* were to fill out these items on 7-point rating scales (from 1 to 7).

Table 1. Statements for freedom expectancy rating (joy).

D ₁	An individual is free to be delighted in whatever he likes.
D ₂	Each has his own way of being delighted in whatever he chooses.
D ₃	There is an objective standard upon which we should be delighted in such and such a situation.
D ₄	One is also delighted in the cases where most people are rejoiced.
D ₅	It is a matter of a person's own feeling that he is rejoiced.
C ₁	A person sometimes is delighted unconsciously.
C ₂	A feeling of joy is under one's control.
C ₃	It is difficult to deny a feeling of joy.
C ₄	A feeling of joy has nothing to do with a person's own will.
C ₅	A feeling of joy is beyond one's control.

Among these ten items, some represented a state of freedom, and others no freedom, because of their wording. Then, weightings were reversed if necessary, in order that, consistently, the greater the score, the more freedom might be expected. That is, weightings of the items which represented a state of no freedom (D_{3,4}, C_{1,3,4,5}) were reversed.

On the basis of *Ss'* freedom expectancy ratings, correlational matrix was computed, and next, factor analysis was carried out.

This research dealt with the feeling state, "joy."

RESULTS

Three factors were extracted by principal factor method. The factor matrix before rotation is shown in Table 2. In Factor I', the signs of factor loadings were reverse between D items and C items. In Factor II' the factor loadings of C items tended to be relatively higher.

The factor matrix after varimax rotation is shown in Table 3. By this rotation, interpretation of factors became clearer. That is, Factor I corresponds to free-will doctrine, and Factor II to perceived self-controlability of behavior, respectively. Factor III could not be easily interpreted, and its meaning remains unclear.

In Fig. 1 the items are plotted with respect to Factor I and II. As a whole, D items were located on the right side below, and C items on the left side above. In addition, $D_{1,2}$ whose factor loadings were relatively higher in Factor I, were clearly grouped. $C_{3,4,5}$ were also clearly grouped, whose factor loadings were higher in Factor II.

With respect to freedom expectancy ratings on which the factor analysis reported

Table 2. Factor matrix before rotation.

	I'	II'	III'
D ₁	0.78	-0.24	0.07
D ₂	0.75	-0.17	0.06
D ₃	0.25	0.13	-0.30
D ₄	0.19	-0.03	-0.36
D ₅	0.16	-0.27	0.01
C ₁	-0.12	-0.26	0.14
C ₂	-0.12	-0.48	0.36
C ₃	-0.15	-0.26	-0.38
C ₄	-0.22	-0.39	-0.02
C ₅	-0.18	-0.64	-0.24

Table 3. Factor matrix after rotation.

	I	II	III
D ₁	0.81	-0.08	-0.11
D ₂	0.75	-0.12	-0.14
D ₃	0.13	0.00	-0.39
D ₄	0.13	0.17	-0.35
D ₅	0.26	0.16	0.07
C ₁	0.02	0.16	0.28
C ₂	0.15	0.20	0.56
C ₃	-0.08	0.46	-0.13
C ₄	-0.03	0.38	0.24
C ₅	0.09	0.69	0.17

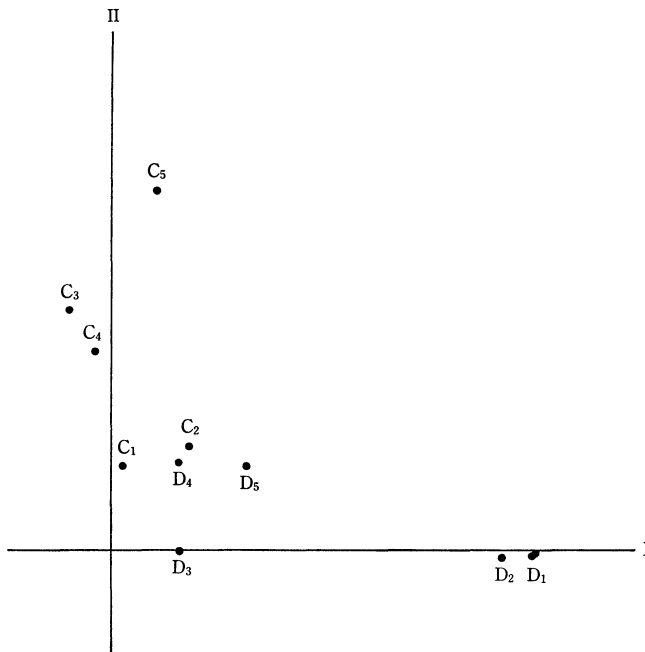


Fig. 1. Plot of items for freedom expectancy rating.

above were based, Fig. 2 indicates mean rating scores of the items whose factor loadings were the highest and the next highest respectively in Factor I and II. Both in $D_{1,2}$, mode was 7, that is, end point of the scale, and Ss who denied free-will doctrine

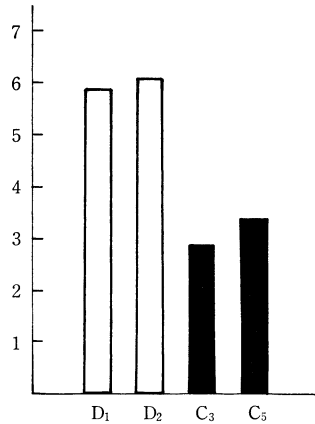


Fig. 2. Mean freedom expectancy ratings for a feeling of joy.

accounted for only 2.5% and 4.0%, respectively. Free-will doctrine tended to be felt strongly.

On the other hand, regarding perceived self-controlability of behavior, mode was 3 in C_3 , 2 in C_5 , and Ss who affirmed self-controlability accounted for 16.0% and 23.1%, respectively. Self-controlability tended to be denied.

DISCUSSION

The results of factor analysis supported two factor view of freedom expectancy. As assumed implicitly in the existing reactance literature, it was shown that freedom expectancy had two factors, that is, free-will doctrine and perceived self-controlability of behavior.

With respect to freedom expectancy ratings, it was found that there was some discrepancy between free-will doctrine and perceived self-controlability of behavior.

Free-will doctrine was felt strongly. This implies that reactance can be aroused also in feeling states.

On the other hand, very few felt self-controlability of behavior. This suggests something about the manifestation of reactance in feeling states, but it is safer to discuss this point after gathering further data, which reveal how freedom is expected in other feeling states.

EXPERIMENT 2

In Experiment 1, freedom expectancy in a feeling state, "joy", was investigated. Then, is it possible that the findings of Experiment 1 are generalized to other feeling states ?

The purpose of Experiment 2 was to investigate freedom expectancy in various feeling states. Particularly it may be noteworthy whether discrepancy between free-will doctrine and perceived self-controlability of behavior will be found also in other feeling states. It is because that this discrepancy is thought to have some important implication for the discussion on reactance manifestation in feeling states.

METHOD

Subjects: *Ss* were 135 undergraduates at the Tohoku University. The questionnaire was administered as a part of the lecture course in psychology.

Procedure: The degree of freedom expectancy in various feeling states was asked in the same way as Experiment 1. The questionnaire contained items for the following feeling states: Sadness, joy, anxiety, humor, pleasure, pity, fear, interest, moving, gratitude, anger and surprise.

These feeling states were selected on the ground that they seemed to be suitable for the threat manipulation such as "You should feel..".

For each feeling state above, *Ss* were told to rate the degree of free-will doctrine and perceived self-controlability. The statements, employed for freedom expectancy ratings, were ones whose factor loadings had been the highest in each corresponding factor on the basis of Experiment 1 results, that is, D_1 and C_5 . As in Experiment 1, the weighting of C_5 was reversed.

RESULTS

Fig. 3 indicates mean ratings of freedom expectancy in various feeling states.

In all feeling states, free-will doctrine statements were affirmed. On the other hand, most self-controlability ratings were near the midpoint of the scale, 4. Additionally it was only in "gratitude" and "interest" that self-controlability of behavior was affirmed even though very weakly.

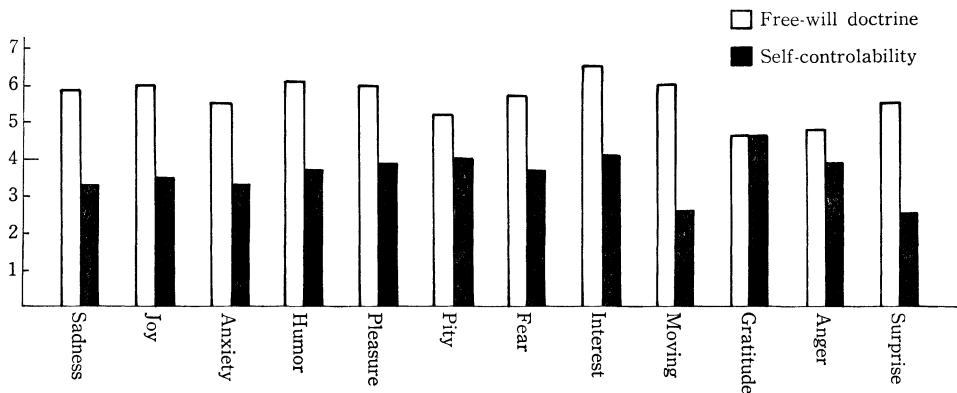


Fig. 3. Mean freedom expectancy ratings for various feeling states.

As a whole, free-will doctrine was consistently felt strongly, while on the other hand, self-controlability was more ambiguous and tended not to be felt.

The feeling state, "joy", had been examined also in Experiment 1 and both results were identical. This may be an evidence in support of the reliability of freedom expectancy scale.

DISCUSSION

The results of freedom expectancy ratings were identical to those of Experiment 1, and revealed discrepancy between free-will doctrine and perceived self-controlability of behavior also in other feeling states. Free-will doctrine was consistently felt more strongly than self-controlability. But this tendency was very weak in "gratitude."

In most feeling states which this research dealt with, free-will doctrine was felt strongly. This may suggest that reactance can be aroused generally in various feeling states.

On the other hand, self-controlability of behavior consistently tend not to be felt. This may imply that some particular difficulty will arise, when reactance theory is applied to feeling states. This difficulty, however, is not derived from reactance theory but from the very nature peculiar to feeling states themselves.

Some intense feeling lies out of one's control. For example, it is usually not easy to get rid of serious despair. This may result from the fact that, at least in many cases, feeling or emotion is determined for the most part at physiological level.

If a feeling is almost completely determined at physiological level, there will be little room for an individual's self-control to play any role in determining how he feels. Therefore he is virtually unfree with respect to the feeling in question. If this view is not off the point, theoretically it is possible to infer as follows. The less determined at physiological level, in other words, the more determined at higher order or more cognitive level, the freer a feeling in question is for an individual.

Experiment 2 showed that self-controlability was felt most strongly in "gratitude" among twelve feeling states examined. This may be in line with the view stated above.

Thus in feeling states, because of the very nature peculiar to feelings themselves, it seems that there is little room for an individual's self-control (voluntary control) to play an important role as a determinant of feelings. Further, the fact that self-controlability is generally low in feeling states, raises a possibility that it may be necessary to limit the means through which reactance is manifested.

By definition, the most obvious means of reactance manifestation is exercise of the freedom infringed. That is, by not doing what to be told to do, freedom is most obviously restored.

Of course, the type of reactance manifestation is a function of the conditions under which the reactance is aroused. In order that the aroused reactance may be manifested through exercise of the freedom infringed, it is necessary, first of all, that sufficient amount of self-controlability should be felt with respect to the behavior in question.

According to Wicklund (1974), a person is free by virtue of his decisions. From an objective point of view, molar instrumental acts and attitudes can be altered by one's own decision. In many cases, if necessary, an individual can alter his acts and opinions, if only he makes up his mind to do so.

Then, can feeling states be altered by decision? The data of perceived self-controlability answered to this question rather negatively.

If it is difficult to alter feeling states by one's decision, it becomes less possible that the aroused reactance may be manifested through exercise of the freedom infringed. Because, in order to make exercise of the freedom infringed possible, it should be possible by one's decision to reject one's present feeling states and to feel otherwise.

Experiment 2 showed that, generally in feeling states, self-controlability was felt rather weakly. This implies that it is difficult to employ exercise of the freedom infringed as a means of freedom restoration in feeling states. At least, intent to influence would be less likely to produce boomerang effect in feeling states than in attitudes and molar acts.

On the other hand, since some people actually felt self-controlability with respect to feeling states, even though very few, a possibility that exercise of the freedom infringed may occur in feeling states cannot be easily denied.

Taking this point into account, it will be more productive to begin with feeling states in which not only free-will doctrine but also self-controlability is felt as strongly as possible, when a direct test of reactance effect in feeling states is attempted for the first time. Experiment 2 suggested that among such feeling states were involved "humor", "interest" and "pleasure."

EXPERIMENT 3

Experiment 1 and 2 implied that reactance could be aroused in feeling states, but the reactance aroused might be less likely to be manifested through exercise of freedom infringed.

Then can reactance be actually aroused in feeling states? And if it can be aroused, through what means is the aroused reactance manifested? The purpose of Experiment 3 was a direct test of reactance effects in feeling states.

In terms of reactance theory, perception of pressure to feel in this way constitutes a threat to freedom to feel otherwise. If emotional freedom is expected, an individual will experience reactance and be motivated so as to protest his freedom to feel otherwise. Theoretically it follows that the more an individual receives pressure to feel in this way, the less he feels so. Reactance effect of this type is called exercise of the freedom infringed.

In this experiment, Ss received pressure to feel a cartoon humorous. This threat manipulation involved two conditions, labeled high and low respectively. If exercise of the freedom infringed occurs, Ss in the High Threat condition will feel the cartoon less humorous than Ss in the Low Threat condition.

Next, if exercise of the freedom infringed does not occur, what reactance effects can be observed? Detectable reactance effects in this case involve at least two types of subjective experience, that is, derogation of threatener and increased self-direction feeling.

Finally, if reactance is not aroused at all, of course, no difference will be obtained between High and Low conditions.

At beginning of this experiment, it was unknown whether reactance could be aroused in feeling states and through what means the reactance aroused in feeling states would be manifested. Therefore it was difficult to predict this experiment's results on the basis of the findings which had been accumulated for reactance theory. In this sense, this experiment was an explorative one.

METHOD

Subjects: *Ss* were 28 male Tohoku University undergraduates, who volunteered to participate in social psychology experiment. Two of these were deleted from the data analysis for the following reason. One wrote an essay irrelevant to the experiment, and another had already seen the cartoon which was presented as a stimulus in this experiment. As a result of this deletion, the data from 26 *Ss* were usable for final analysis.

Procedure: Upon arrival at the social psychology laboratory, *S* was given a stapled booklet, entitled "Experiment on Sense of Humor," and an envelope containing a message from another *S*.

On the first page of the booklet, the instructions explicitly outlined what would occur, and read as follows:

How do the feelings of humor come across our minds? By what factors is the sense of humor determined? In order to investigate these points, you are to see a cartoon and to be asked to tell your impression of it.

The order of things to be done is as follows.

First of all, please see the cartoon on the booklet.

Next, please open the envelope and read a message in it. This message is a copy of another person's essay on the cartoon. This is because many of persons who participated in this experiment wanted to know how others felt to see the same cartoon.

After reading this message, please fill out the rating scales.

Finally, you are to write a brief essay on the cartoon. When you finish writing your essay, this experiment is over.

Many social psychologists are at work upon this "sense of humor" problem. Up to this time, it has been known that what one feels humorous reflects some important aspect of one's personality.

The last paragraph was added in order to enhance the importance of emotional freedom.

After reading these instructions, *S* rehearsed to fill out rating scales, and next, saw the stimulus cartoon.

The stimulus cartoon was selected on the basis of pilot study, which showed that this cartoon was moderately humorous and that standard deviation of its humor ratings was relatively small.

Manipulation of threat: After seeing the stimulus cartoon, *S* opened the envelope and read "another participant's essay on the cartoon". This message from another participant was, in fact, prepared by *E* so as to manipulate threat variable.

The message for the High Threat condition was as follows:

I felt it humorous.

No one could feel it dull, I think.

In the Low Threat condition, *S* received the following message:

I felt it humorous.

But I don't know how others may feel it.

Although both were impressions expressing that the stimulus cartoon was humorous, the former threatened *S*'s freedom to feel it dull, while on the other hand, the latter was less likely to be perceived as any directive pressure.

Dependent measures: After reading the bogus message from another *S*, *S* rated the stimulus cartoon in terms of humor, decency and wittiness on 7-point scales (from -3 to +3). Among these, humor rating was the main dependent measure.

Next, *S* were asked whether he had seen the stimulus cartoon before the experiment. Further additional questions contained ratings about intent to influence and likability of the message source, and self-direction feeling. These ratings were also done on 7-point scales (from -3 to +3).

Finally *S* wrote a brief essay on the stimulus cartoon.

RESULTS

Check on the threat manipulation: Perception of the message source's intent to influence was usable for check on the threat manipulation. This intent to influence measure was worded:

To what degree do you think that the writer of this essay was trying to force you to feel as he felt ?

As Table 4 indicates, *Ss* perceived significantly greater intent to influence in the High Threat condition than in the Low Threat condition ($t=5.22$, $df=24$, $p<0.01$). Therefore the manipulation of threat to emotional freedom was successful.

Table 4. Mean intent of influence ratings.

Low threat	High threat
-1.23 (13)	+1.46 (13)

Table 6. Mean likability ratings.

Low threat	High threat
+0.46 (13)	-0.46 (13)

Table 7. Mean self-direction feeling ratings.

Low threat	High threat
+2.08 (13)	+2.54 (13)

Table 5. Mean humor, decency and wittiness ratings.

	Low threat	High threat
Humor	+2.00 (13)	+1.92 (13)
Decency	+0.08 (13)	+0.08 (13)
Wittiness	+1.23 (13)	+1.15 (13)

Perception of stimulus cartoon: Mean ratings for the stimulus cartoon in terms of humor, decency and wittiness are shown in Table 5. Adjective pairs used were "dull - humorous," "coarse - decent" and "nonsential - witty," respectively.

As Table 5 reveals, none of these measures yielded difference in the perception of stimulus cartoon as a function of the threat manipulation.

Likability to message source: As Table 6 indicates, the message source was perceived as significantly less likable in the High Threat condition than in the Low Threat condition ($t=2.68$, $df=24$, $p<0.05$). Further it should be noticed that the message source was directed actually negative affects by Ss in the High Threat condition, whereas positive affects in the Low Threat condition. That is, message source, when threatening other's freedom strongly, tended to be disliked.

Self-direction feeling: Self-direction feeling measure was worded:

To what degree do you think that it is a matter of an individual's own choice what to feel humorous ?

As Table 7 indicates, in the High Threat condition a slightly greater amount of self-direction feeling was experienced than in the Low Threat condition. But this tendency fell short of significance ($t=1.65$, $df=24$).

DISCUSSION

The results that no difference in perception of the stimulus cartoon was obtained as a function of threat manipulation implies, first of all, a possibility that no reactance might be aroused. But this possibility may be rejected for the following reasons.

As a function of threat manipulation likability of the message source differed significantly and actually the threatener was disliked in the High Threat condition. As

Worchel & Andreoli (1974) pointed out, this derogation of threatener serves as one measure of reactance arousal.

In addition, an increased amount of self-direction feeling may be another measure of reactance arousal. In the High Threat condition self-direction was felt more strongly, but the difference between conditions fell short of significance. It should be noticed, however, that Ss experienced self-direction feeling rather strongly also in the Low Threat condition. Theoretically self-direction feeling may be considered as free-will doctrine made situationally salient by the threat to freedom. As Experiment 2 suggested, free-will doctrine appears to be held rather strongly in general even when no threat to freedom exists. Therefore, at least as one possible explanation, the reason, why self-direction feeling did not increase significantly in the High Threat condition, may be attributed to ceiling effect.

The results of self-direction feeling and derogation of threatener, taken together, appear to indicate that reactance motivation could be aroused in feeling states. Therefore in this experiment it seemed that threat to emotional freedom did arouse reactance but that the reactance aroused was not manifested through exercise of the freedom infringed.

As stated in Experiment 2, it may be because that generally a small amount of self-controlability is felt in feeling states, for one thing.

Another possible explanation is that of the impression management interpretation of reactance (Baer et al., 1980). Contrary to the traditional effectance motivation interpretation, the impression management interpretation asserts that people are less concerned with the actual loss of a specific behavioral freedom than they are with maintaining the outward appearance of being free. If this is true, it follows that exercise of the freedom infringed will occur only when *S* knows his response to the threatener is to be exposed to the threatener.

Since this experiment was designed according to the traditional view of reactance, there was no implication in the procedure that *S*'s essay upon the stimulus cartoon was to be exposed to the threatener. So, according to the impression management interpretation of reactance, the very condition under which exercise of the freedom infringed could be done was not met in this experiment.

To sum up, in this experiment, it has been verified that reactance can be aroused in feeling states, but it remains unclear whether the reactance aroused in feeling states can be manifested through exercise of the freedom infringed.

Future research will be required to take account of the impression management interpretation of reactance and to investigate reactance effects in other feeling states than "humor."

REFERENCES

- Baer, R., Hinkle, S., Smith, K., & Fenton, M. 1980 Reactance as a function of actual versus projected autonomy. *Journal of Personality and Social Psychology*, 38, 416-422.
- Brehm, J.W. 1966 A theory of psychological reactance. New York: Academic Press.

- Brehm, J.W. 1976 Response to loss of freedom: A theory of psychological reactance. In J.W. Thibaut, J.T. Spence, & R.C. Carson (eds.) *Contemporary topics in social psychology*. Morristown, N.J.: General Learning Press.
- Hammock, T. & Brehm, J.W. 1966 The attractiveness of choice alternatives when freedom to choose is eliminated by a social agent. *Journal of Personality*, **34**, 546-554.
- Jones, R.A. 1970 Volunteering to help: The effects of choice, dependence, and anticipated dependence. *Journal of Personality and Social Psychology*, **14**, 121-129.
- Pallak, M.S. & Sullivan, J.J. 1979 The effect of commitment, threat and restoration of freedom on attitude change and action-taking. *Personality and Social Psychology Bulletin*, **5**, 307-310.
- Snyder, M.L. & Wicklund, R.A. 1976 Prior exercise of freedom and reactance. *Journal of Experimental Social Psychology*, **12**, 120-130.
- Sullivan, J.J. & Pallak, M.S. 1976 The effect of commitment and reactance on action-taking. *Personality and Social Psychology Bulletin*, **2**, 179-182.
- Wicklund, R.A. 1974 Freedom and reactance. Potomac, Maryland: Laurence Erlbaum Associates.
- Worchel, S. & Andreoli, V.A. 1974 Attribution as a means of restoring behavioral freedom. *Journal of Personality and Social Psychology*, **29**, 237-245.

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