

AGGRESSIVE HUMOR AS A STIMULUS TO AGGRESSIVE RESPONSES¹

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As a test of the notion that the witnessing of aggressive humor can produce a cathartic purge of the observer's aggressive inclinations, 80 female university students were first either angered or not aroused by having them hear a job applicant's statements about university women. In a factorial design, the subjects then listened to a 4-minute tape recording, either of a nonhostile comedian (George Carlin) or a hostile comedian (Don Rickles). When the subjects rated the job applicant on several measures immediately afterwards, knowing their comments might affect the applicant's chances of getting the job, the women who had heard the aggressive humor were more aggressive toward the applicant than were the women who had listened to the neutral humor. Several other studies purporting to demonstrate the cathartic influence of aggressive humor are discussed.

Research findings indicate that angry subjects generally do *not* become friendlier toward their frustrater after watching other people fighting (Bandura, 1965; Berkowitz, 1965, 1970c; Hartmann, 1969). The observed aggression is more likely to stimulate heightened aggressive reactions in the provoked subjects than to produce a cathartic reduction of their aggressive inclinations. Seemingly in opposition to these findings, however, several recent papers maintain that observed aggression in the form of orally or visually presented hostile humor does have a cathartic effect (e.g., Landy & Mettee, 1969; Singer, 1968). Can it be that witnessed or vicariously experience aggression garbed in the cloak of humor "drains" hostile urges where unadorned and more blatant observed aggression stimulates further aggression? How does humor influence the supposed cathartic process?

In attempting to answer these questions, the definition of "catharsis" guiding this research must first be made explicit, and then two important distinctions will be drawn that have been overlooked by a number of investigators. The catharsis concept has undergone important changes in meaning since it was first introduced

by Aristotle in his discussion of the effects of vicarious experience (in *Poetics*). Nevertheless, most usages of the term in the modern world (from Breuer and Freud, in 1895, to contemporary analyses of aggression) hold that the reexperience of an inhibited emotion produces a purge of that affect. What is important here for our purposes is the correspondence between the emotional experience and the presumably drained affect. While psychoanalytic theory does postulate energy transfers across behavior classes, this is generally given a different name (such as "sublimation"), and the catharsis notion is usually confined to those instances in which the consciously experienced or expressed emotional state is the same one that is theoretically reduced. Following this definition, Dollard, Doob, Miller, Mowrer, and Sears (1939) hypothesized that *aggressive* behavior lessens the instigation to *aggression*, and Feshbach (1956) suggested that catharsis occurs only when the drive that is to be reduced has been active at the time the supposedly cathartic behavior is carried out. Departures from this type of definition of catharsis open the way to imprecision and theoretical confusion. Very few people today would contend that a decline in overt aggression upon the arousal of strong fear is due to a purge of anger through the expression of fear, and yet this type of statement would be appropriate unless we restricted the concept in the manner advocated here.

A recent experiment by Landy and Mettee (1969) purporting to demonstrate the cathartic

¹ This research was supported by a grant from the National Science Foundation to the author. The author is greatly indebted to Elizabeth Martin and Karen Cheek for the great skill and care with which they carried out this research.

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benefits of humor illustrates this difficulty. The female undergraduates in this study were either insulted by a graduate student or witnessed this insulting attack, and then, ostensibly as part of another experiment, rated the humor-ousness of a set of cartoons. These cartoons were both hostile *and* nonhostile in nature, and the investigators reported that their subjects did not seem aware of the aggressive content of the humor. We cannot say, therefore, that the cartoons had unequivocally created a conscious experience or expression of hostility in the women which then drained their aggressive inclinations. They may have felt only a pleasant humor which, as Landy and Mettee acknowledged, could have suppressed their dislike reactions. A precise definition of catharsis required that affect must be clearly and consciously experienced, and that this feeling then is followed by a consequent reduction in this same emotional state. We should not talk of hostile humor producing a hostility catharsis, however, unless we know (at the very least) that the observers had recognized the aggressive nature of the humor so that it was likely to have evoked hostile affect in them.

Unambiguous tests of the catharsis hypothesis must attend to the consequent reactions as well as to the antecedents of this behavior. Most important, hostility catharsis must be differentiated from just any lessening of overt aggression. There are many reasons why the initial emotional display or experience may be followed by a reduction in open attacks upon others, in addition to the possible discharge of aggressive drive (Berkowitz, 1970a). If the listener is angry because of some blow to his ego, for example, the humor conceivably might make him think better of himself by making the anger instigator seem ridiculous. No longer feeling the pain of self-doubt, he is then less inclined to strike out at people around him. Some such process could have accounted for Singer's (1968) results. Negro subjects in this experiment were first aroused by having them listen to stories of brutalities that had been inflicted on civil rights workers, as well as a speech by a militant segregationist, who argued that blacks were genetically inferior to whites. Then, in the hostile humor condition, the men heard a tape recording of a Negro humorist who was "bitingly derisive and scornful of

segregationists." As Singer had admitted, the hostile humor might have created a "sense of increased mastery," which overcame the ego threat inherent in the arousing communication. These subjects could then have displayed a comparatively low level of anger because the severity of the anger-arousing threat (or frustration or noxious event) was weakened and not because they had vicariously discharged their ire in listening to the hostile humorist.³

Besides possibly lessening the aversiveness of the provocation, humor conceivably could elicit reactions incompatible with aggression and/or might also modify the aggressive cue value of other people in the environment. Landy and Mettee (1969) recognized the former possibility, as mentioned before, although they preferred to view their findings as a catharsis. This conclusion can certainly be disputed. There is no clear evidence of a cathartic purge, as Landy and Mettee acknowledged in passing. The humor reactions evoked by the cartoons might have restrained the dislike responses, and/or the cartoon-created good mood might have lessened the graduate student's aggressive cue value. Berkowitz's research (e.g., Berkowitz & Green, 1962; Berkowitz & Knurek, 1970) has shown that the strength of attacks upon an available target is often governed to a considerable extent by the target's stimulus properties, such as his ability to evoke either a positive or negative attitude in the potential aggressor; a provoked individual generally is most aggressive toward someone he had previously learned to dislike. Much as people can become favorably disposed toward an attitude issue that is associated temporally with the pleasant experience of eating (Janis, Kaye, & Kirschner, 1965), the Landy and Mettee subjects could have become friendlier toward the graduate student because he was close in time to the pleasant cartoons. The pleasant feelings experienced as the subjects rated the cartoons

³ As an analogy, suppose a person is prevented from reaching his home because a bully is blocking his path. He screams and rants, but the bully remains unmoved, and the person cannot reach his goal. Then suppose someone else comes along and pushes the bully out of the person's way. The person's anger may then decline—not because of his own aggressive behavior, but because the other individual had removed his frustration.

might have generalized to the graduate student.

In addition to distinguishing between hostility catharsis and any lessening of overt aggression, tests of the catharsis hypothesis should also differentiate between *moods* such as anger and *aggressive behaviors*, actions capable of hurting another person either physically or psychologically. Singer, as well as Dworkin and Efran (1967), relied on mood ratings, but the magnitude of aggressive behavior does not necessarily parallel the intensity of experienced anger, even in the absence of inhibitions against aggression. Consistent with this argument, in the author's research, self-reported anger was often not correlated with the strength of aggressive actions directed against possible target persons (e.g., Berkowitz & Geen, 1966); the magnitude of the attacks was also influenced by the victim's aggression cue value.

Moreover, contrary to traditional thinking in this area, a reduction in experienced tension could sometimes indicate an *increased* likelihood of subsequent aggression. This heightened probability of aggression following a pleasant experience could come about if the individual had just encountered a reinforcing stimulus. As Berkowitz (1970c) has suggested, the sight or sound of someone being injured could be a reinforcement for those who are angry or otherwise ready to aggress. The aggressive scene is pleasant, but as a reinforcement it increases the chances that the observer will react aggressively, especially toward someone having appropriate stimulus properties. All in all, then, feelings of tension or anger do not necessarily predict the strength of subsequent aggression.

The present experiment was designed to overcome some of the above-mentioned difficulties in testing the effects of hostile humor. For one thing, while subjects were not actually required to perform aggressive responses, either overtly or covertly (as in the Singer study), the humor employed in the crucial experimental condition was clearly hostile in nature, and thus was more appropriate to the catharsis hypothesis than the humor used in the Landy-Mettee experiment; we can therefore determine if the presumed vicarious participation in the humorist's *aggression* provided a sub-

stitute release for the observer's own aggressive inclinations. This humor, furthermore, was unlikely to raise the provoked subjects' self-esteem, since it did not belittle their tormentor. Any observed reduction in aggression following the humor is thus not readily attributable to ego enhancement. Finally, both mood and aggression measures were obtained in order to determine if both yield the same pattern of results.

The writer's prior research (cf. Berkowitz, 1970b) leads to a fairly definite prediction: Aggressive humor will function as a stimulus to aggressive responses, much as film violence often does. Although this enhanced aggression should emerge in both provoked and nonprovoked subjects, the angered subjects should exhibit the strongest attacks on their frustrater after the hostile humor; their emotional arousal should "energize" the hostile reactions evoked by the hostile humor. This enhanced aggression following the aggressive humor should occur, moreover, even though the subjects find this humor pleasant and satisfying; the aggressive humor presumably functions as a reinforcing stimulus, and, as such, evokes aggressive responses, as well as a feeling of pleasure.

METHOD

Subjects

The subjects were 80 female undergraduates enrolled in the introductory psychology classes at the University of Wisconsin, who were serving in the experiment as part of their course requirements. No subjects were discarded from the study, and there were 10 girls in each of the eight conditions in the $2 \times 2 \times 2$ design.

Procedure

To summarize briefly, the subjects were first either provoked or given a nonarousing treatment by a peer and then listened to either a hostile or nonhostile comedian. After this, the subjects evaluated their peer, with some doing this after rating the humor and the others before completing the humor rating.

When each girl came to the laboratory at the assigned time, she was told that she was participating in a study for the University dealing with the selection of housefellows⁴ for the women's dormitories. The experimenter said that the subject would be asked to listen to a taped interview of a girl who had recently applied for

⁴ Housefellows are generally older students, usually graduate students, who reside in the dormitory and serve as advisors and counselors to the people living on their floors.

a housefellow position, and then would have to rate the applicant's desirability for this job. The tape recording was then started. For half of the subjects, those who were to be annoyed by the job applicant, the applicant spoke in a derisive and even insulting manner about Wisconsin coeds (hostile interview condition). The remaining subjects listened to fairly bland and ordinary comments about the role of dormitory housefellow (neutral interview condition). According to the great majority of the ratings of the job applicant in this condition, this interview portrayed the applicant in a neutral to moderately favorable manner.

At the conclusion of the recording, the experimenter "discovered" that she did not have the appropriate rating sheets on which the subject was to make her evaluations, and told the girl she would have to go to the department office to get this material. While she was waiting, the experimenter asked, would the subject listen to another tape recording, this time of a comedian? The experimenter explained that prior to starting his own research, a graduate student wanted to find out how funny the comedian was to students, and the experimenter had agreed to help him get his data. The experimenter played one of two humor tapes: either a brief routine (approximately 4 minutes) by George Carlin, in which no one was offended (non-aggressive humor) or an equally short routine by Don Rickles, in which a number of actors, as well as members of his studio audience, were insulted (aggressive humor).

The experimenter was out of the room during this humor period and returned at the end of the tape. When she reentered the room, she gave the subject four questionnaires. The final experimental manipulation varied the order in which these questionnaires were presented. Half of the girls in each of the four conditions created up to this point rated the humor tape on 5-step scales along eight dimensions ("zany," "intelligent," "hilarious," "hostile," etc.) *before* they evaluated the housefellow applicant. However, since there was a possibility that these humor ratings might influence the subsequent evaluations, perhaps by calling the subjects' attention to the nature of the humor (cf. Gollob & Levine, 1967), the other girls completed the humor ratings *after* they evaluated the applicant. This manipulation proved to have no systematic and readily understood effects, however, and no further mention will be made of it in this paper.

Dependent Variables

In addition to the humor ratings, the subjects expressed their judgments of the job applicant on two separate pages. One of these was an adjective checklist, employed by the present author in earlier research. As in the other studies, the subject was to check which adjectives characterized the applicant. For the first time, however, the adjectives were sorted into three separate categories varying in the extremity of the hostility implied. It was thought that the girls might be reluctant to attribute extremely unfavorable traits to the applicant, but would feel freer to assign moderately bad characteristics to her. An independent pool of 35 judges had indicated which of the adjectives were either "extremely unfavorable," "moderately un-

favorable," or "friendly" if applied to a person, and three separate adjective checklist scales were established, based on these categorizations. These scales were then further refined by an item analysis, using all of the subjects in the experimental sample. Twelve adjectives comprised the extremely unfavorable measure, including such traits as "bitter," "irresponsible," "selfish," and "tactless," while there were 11 adjectives in the moderately unfavorable measure, such as "coarse," "egotistical," "quarrelsome," and "unstable." The friendliness or favorable evaluation scale had 19 adjectives, including "adaptable," "fair-minded," "natural," and "warm." For each of these scales, a subject's score was the number of adjectives attributed to the job applicant.

An item analysis, again employing the entire sample, was also carried out in devising the questionnaire evaluation measure of hostility toward the applicant. This analysis revealed that four of the five items on the form assessing the subjects' opinions of the applicant were highly intercorrelated:

- Would you want this person to be a housefellow in a dormitory in which you resided?
- Do you think that most students in a Wisconsin dormitory would like this person?
- Do you think that most students in a Wisconsin dormitory would respect this person?
- Overall rating of this person.

The girls expressed their judgments on each item by checking 1 of the 23 steps on the scale ranging from "Definitely yes" at one end to "Definitely no" at the other. Since the subjects were led to believe that their questionnaire evaluations and the adjective checklist responses would affect the applicant's chances of obtaining the housefellow position, unfavorable reactions on these measures were fairly direct attacks on the applicant.

Finally, the subjects rated their mood at the moment on a modified version of the Nowlis Mood Scale (Nowlis, 1965). In responding to this instrument, the girls indicated the extent to which each of the 24 words described their present feelings, with each item being on a 5-point scale varying from "Definitely applies" to "Definitely does not apply." These items were organized into eight three-item clusters, and the data analyses carried out used the cluster scores.

RESULTS

Effectiveness of the Experimental Manipulations

Analyses of variance of the mood scales and the aggression measures yielded results testifying to the effectiveness of the interview manipulation. (In all cases, the F ratios were based on $df = 1/72$.) As can be seen in Part A of Table 1, the subjects who had listened to the hostile interview described themselves as significantly angrier (rebellious, angry, defiant) and reliably less sluggish (sluggish,

TABLE 1
EFFECTS OF MANIPULATION OF JOB
APPLICANT INTERVIEW

Measure	Interviewee		
	Hostile	Neutral	F ratio
A. Mood			
Rebellious, angry, defiant	5.62	3.85	11.45**
Sluggish, drowsy, tired	5.65	7.50	6.74*
B. Aggression			
Extremely hostile adjectives	3.82	.52	92.68**
Moderately hostile adjectives	4.77	.70	104.83**
Friendly adjectives	1.58	10.78	147.24**
Hostile questionnaire evaluation	77.45	39.28	167.66**

Note.—The higher the score, the more the given measure label is applicable to the condition.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

drowsy, tired) than did the girls who had heard the neutral interview. The insulating job applicant in the former condition had clearly provoked the subjects, while the latter interview might have been somewhat dull. Not surprisingly, the obnoxious applicant was also attacked significantly more severely on each of the four aggression measures than was the neutral applicant.

The significant results obtained with the humor ratings, reported at the top of Table 2, clearly point to the difference in the hostility of the two comic routines. The aggressive humor tape was judged to be significantly more hostile and sarcastic, and also reliably less intelligent, than the neutral humor tape. The aggressive humor sequence was also rated as significantly less funny than the neutral humor. While this difference means that the hostile routine was clearly regarded as aggres-

TABLE 2
MEAN SCORES IN THE TWO HUMOR CONDITIONS

Item	Aggressive humor	Neutral humor	F ratio
A. Humor ratings			
Intelligent	1.95	3.18	19.21**
Hostile	3.35	2.00	23.11**
Sarcastic	4.62	3.62	19.78**
Funny	3.35	4.20	10.49**
B. Aggression measures			
Extremely hostile adjectives	2.30	2.05	<1
Moderately hostile adjectives	3.05	2.42	2.46
Friendly adjectives	5.38	6.98	4.45*
Hostile questionnaire evaluation	61.65	55.08	4.97*

Note.—The higher the score, the more the given measure label is applicable to the condition.

* $p < .05$.

** $p < .01$.

sive in nature, in comparison to the neutral comic sequence, rather than being solely pleasantly funny, another analysis to be reported below will equate the two tape recordings in terms of their perceived "funniness."

Effects of Aggressive Humor

The findings summarized in Part B of Table 2 indicate that the hostile humor had generally stimulated aggression toward the job applicant. Regardless of whether she had been insulting or neutral in her interview, the applicant was assigned reliably fewer favorable traits and was given a significantly poorer questionnaire evaluation after the subjects had heard the hostile comedian.

Although the aggression measures did not produce any significant interactions between the interview and humor variables, the a priori predictions justified a closer inspection of the humor effects within each interview treatment. The results are given in Table 3 for those measures having any significant differences among the four group means. In general, the aggressive humor increased aggression toward the applicant whether or not she had been obnoxious during the interview. After the neutral interview, for example, Don Rickles's hostile humor resulted in reliably fewer favorable adjectives being attributed to the applicant and also a nearly significant ($p = .06$), less favorable questionnaire evaluation being given to her than did George Carlin's neutral humor. Similarly, when the job applicant had been obnoxious, the aggressive humor led to significantly more unfavorable traits being assigned her and also to a somewhat less favorable questionnaire evaluation. ("Ceiling" and "floor" effects might have prevented sharper differences from emerging with the latter questionnaire measure and with the favorable adjectives score. The mean of 79.7 on the hostile evaluation scale in the aggressive interview-aggressive humor group is close to the highest score possible—92—and may have been even closer to the maximum hostility the subjects were willing to express. Moreover, it was probably also extremely difficult for the girls to assign the applicant in this condition less than the one favorable quality they did attribute to her. More room on the given

TABLE 3
CONDITION MEANS ON AGGRESSION AND MOOD MEASURES IN THE FOUR EXPERIMENTAL CONDITIONS

Measure	Hostile interviewee		Neutral interviewee	
	Aggressive humor	Neutral humor	Aggressive humor	Neutral humor
Moderately hostile adjectives	5.35 _a	4.20 _b	.75 _c	.65 _c
Friendly adjectives	1.35 _a	1.80 _a	9.40 _b	12.15 _c
Questionnaire evaluation	79.70 _a	75.20 _a	43.60 _b	34.95 _b *
Mood ^a : Forgiving-Kindly	10.50	8.40	8.80	10.05
Mood ^a : Refreshed-Pleased	10.20	9.25	8.15	10.20

Note.—Cells having different subscripts are significantly different, by Duncan multiple-range test, at the .05 level; $n = 20$ in each cell.

^a Interaction significant at less than the .05 level.

* This mean is different from 43.60 at the .06 level.

aggression dimensions might have shown that the anger provoked by the hostile interview had facilitated the occurrence of aggressive reactions to the hostile humor.)

Readers who do not accept the present definition of hostility catharsis will probably be bothered by the previously mentioned difference in the rated "funniness" of the aggressive humor and neutral humor routines, as reported in Table 2. Objecting to the writer's insistence that the subjects must clearly perceive the humor as *hostile* rather than pleasantly funny if we are to have an adequate test of the catharsis idea, they could attribute the apparent aggression-enhancing effect of the hostile humor to its relatively low level of humorousness. A subsidiary analysis was therefore performed employing only those subjects who had rated the comic routines as decidedly funny (Steps 4 or 5 on the 5-point rating scale). However, in order to make sure that there were the necessary group differences in recognition of the aggressive or neutral content of the given humor routine, only those subjects were retained in the aggressive humor condition who had given the tape recording an above-median rating on the hostility scale, while the subjects in the neutral humor group all had to give their routine a below-the-median rating on this measure. Thirty-four subjects passed muster in terms of these criteria, 15 in the aggressive humor group and 19 in the neutral humor condition. Moreover, the humor was regarded as equally funny in these two conditions (4.33 funniness in the aggressive humor condition and 4.58 on this 5-step scale in the neutral humor group).

Despite this very small and nonsignificant difference in rated humorousness, the hostile comic routine still led to the expected stronger attacks on the job applicant than did the neutral comic sequence. Thus, in comparison to the women in the neutral control group, the students who had heard Don Rickles gave the job applicant a reliably more unfavorable questionnaire evaluation ($t = 2.84$, $p < .005$, one-tailed test), attributed more moderately hostile traits to her ($t = 1.72$, $p = .05$, one-tailed test), and also assigned her fewer friendly characteristics ($t = 3.50$, $p < .005$, one-tailed test). The earlier reported greater level of aggression by the subjects in the aggressive humor condition cannot be attributed to the comic sequence's lesser degree of humorousness.

Table 4 shows the aggression means in the aggressive and neutral humor groups within each interview condition. We can see here that the subjects were significantly more unfavorable to the annoying job applicant in their questionnaire evaluation of her after listening to the hostile humor than after hearing the neutral sequence, and also tended to assign more moderately unfavorable adjectives to her.⁵ Similarly, when evaluating the neutral interviewee, the women who heard the aggressive routine attributed reliably fewer favorable traits to her than did the subjects who had encountered George Carlin.

The findings with the mood measures are equivocal because they followed the aggressive responses and could have been affected by these reactions. Nevertheless, for what they

⁵ The error term used in the t tests of the mean differences was based on all four groups ($df = 1/30$).

TABLE 4
AGGRESSION MEASURE MEANS IN GROUPS EQUALLY HIGH ON HUMOR RATINGS

Item	Hostile interviewee			Neutral interviewee		
	Aggressive humor ^a	Neutral humor ^b	<i>t</i>	Aggressive humor ^a	Neutral humor ^b	<i>t</i>
Moderately hostile adjective	4.88	3.56	1.65*	.57	.40	—
Friendly adjective	.88	1.89	—	10.43	13.50	2.09**
Questionnaire evaluation	86.62	74.40	2.31***	37.86	32.80	—
<i>n</i>	8	9		7	10	

^a Above median in hostility rating, 4 or 5 in humor rating of comic routine.

^b Below median in hostility rating, 4 or 5 in humor rating of comic routine.

* $p = .06$, one-tailed test.

** $p = .025$, one-tailed test.

*** $p < .025$, one-tailed test.

are worth, the mood results presented at the bottom of Table 3 support the writer's suggestion that unpleasant, tense feelings do not necessarily parallel aggressive behavior. There were significant interactions between the interview and humor variables for two of the Nowlis mood clusters: forgiving, kindly, and affectionate ($F = 5.54$, $df = 1/72$, $p < .05$), and refreshed, light-hearted, and pleased ($F = 4.45$, $df = 1/72$, $p < .05$). The appropriate means given in Table 3 indicate that the subjects felt most forgiving-kindly and refreshed-pleased if they had heard the neutral comedian after listening to the neutral interview or if they had heard the aggressive humor following the insulting aggressive interview. The hostile comedian evidently was relatively tension reducing for the girls who had just been angered by the job applicant. Their pleasant mood, however, had accompanied strong attacks upon the applicant.

DISCUSSION

However hostility catharsis is defined, the present results place severe restrictions on the supposed beneficial effects of hostile humor. They suggest that angry people will display a lowered intensity of attacks upon their tormentor after encountering hostile jokes, stories, or cartoons only if this humor is regarded as belittling the anger instigator (as perhaps was the case in the Singer study) or if the aggressive content of the humor is not clearly detected (as in the Landy & Mettec experiment). If the hostile nature of the comic routine is very recognizable, however, as was true in the present investigation, the humor could well

stimulate enhanced aggressiveness. Just like other stimuli having aggressive meaning, it can elicit aggressive responses from those persons who are ready or set to act aggressively (Berkowitz, 1970b).

This paper also calls for increased precision in the theoretical definitions of hostility catharsis that are employed by researchers in this area. The author particularly questions the merit of those formulations that equate possibly very different instigations to behavior. Where some writers apparently hold that the expression or experience of *any* emotional state can drain hostile affect, it is probably better to confine the catharsis concept to those instances in which the emotion exhibited or felt corresponds closely to the emotion that is presumably purged. This certainly is the most frequent way that the idea is used in contemporary discussions of aggression.

Let us now turn briefly to the matter of the mood results. Although the interpretation of these findings must be equivocal because the mood ratings were obtained after the subjects evaluated the job applicant and could have been influenced by these evaluations, there may be some heuristic value to one line of speculation about the mood results summarized in Table 3. Let us assume here that the mood ratings were primarily governed by the experimental treatments rather than by the subjects' evaluative responses.

Anger arousal often creates a preference for hostile humor. Although there seem to be several important complications and exceptions (cf. Byrne, 1961; Singer, 1968), angered persons frequently become more favorably dis-

posed toward hostile humor than they were before being provoked (Dworkin & Efran, 1967). This change may reflect the reinforcing nature of aggressive events for angry people (cf. Berkowitz, 1970c). Watching or hearing someone being injured aggressively (in a not-too-extreme fashion) can be tension reducing and even relatively pleasant if we are instigated to attack this person or perhaps even another individual. Thus, the angry girls who had just been insulted in the aggressive interview condition might have been pleased to hear the hostile humor and showed this pleasure in their mood ratings. As a reinforcement, however, the hostile tape facilitated the occurrence of those responses associated with this type of reinforcement—aggressive responses in this case—perhaps because a reinforcing event increases the organization of the particular neural systems involved in the action pattern (Glickman & Schiff, 1967). The provoked girls felt somewhat refreshed and pleased after hearing the hostile humor, possibly because the aggressive tape recording had increased neural organization, but this enhanced organization then led to easier and stronger aggression toward the available target.

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(Received November 12, 1969)