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THE EFFECTS OF HUMOR ON PERSUASION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for  
the Degree of Doctor of Philosophy in the Graduate  
School of The Ohio State University

By

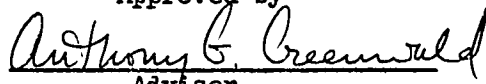
Dorothy Markiewicz, B.A., M.A.

\* \* \* \* \*

The Ohio State University

1972

Approved by

  
Adviser

Department of Psychology

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This dissertation is dedicated to my parents, Sarah and Wigdor, and to my sisters, Susanna and Deborah.

VITA

\*

Personal Data:

Date and Place of Birth: December 19, 1946; Fritzlar, Germany

Marital Status: Single

Education

B.A. The Ohio State University  
Columbus, Ohio  
June, 1968  
Major in Psychology

M.A. The Ohio State University  
Columbus, Ohio  
December, 1969  
Major in Social Psychology

Ph.D. The Ohio State University  
Columbus, Ohio  
September, 1972  
Major in Social Psychology  
Minor in Experimental Psychology  
Second Minor in Statistical Psychology

Honors:

1964 Alpha Lambda Delta Honorary  
1968 Phi Beta Kappa Honorary  
1968-71 Merghon Fellowship

Membership:

American Psychological Association  
(Student)

Professional Experience:

Teaching: 1970 Guest lecture, Introductory Psychology

1971 Wrote program on Social Behavior for  
Computer Aided Instruction for Intro-  
ductory Psychology, Ohio State U.

1972 Taught a section of Introductory  
Social Psychology

Research:

1967-72 Under supervision of Professor Anthony G. Greenwald; worked on role-playing and attitude change, modeling of attitudes, selective attention, attitudinal effects of humor.

Other:

1967, summer Careers in Social Work--Foster Home Recruiting Center, Cleveland, Ohio; worked on public relations to increase the number of appropriate persons volunteering to be foster parents.

Papers:

Markiewicz, Dorothy. The effects of witnessing a model convert on opinion change. Unpublished masters thesis. The Ohio State University, 1969

Markiewicz, Dorothy. Social behavior. In Computer Aided Instruction for Introductory Psychology, The Ohio State University, 1971

Markiewicz, Dorothy. The effects of audience initial opinions on receptivity to humorous versus serious persuasive messages. Paper presented at the Midwestern Psychological Association, Cleveland, Ohio, May 5, 1972.

References:

Dr. Anthony G. Greenwald  
Dr. Timothy C. Brock  
Dr. Bibb Latane  
Dr. Thomas M. Ostrom

All of the above may be reached at:

Department of Psychology  
404-C West 17th Avenue  
The Ohio State University  
Columbus, Ohio 43210

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## Chapter 1

### INTRODUCTION

That humor serves to enhance the effect of a persuasive message is a view offered by some whose concerns are politics, advertising, or rhetoric. The humor used by politicians such as Abraham Lincoln, the Kennedy brothers, and others, has been suggested as being a factor contributing to their success as speakers. Students of rhetoric have often been coached as to the desirability of incorporating humor into their speeches. Approximately 42% of television commercials use some humor (Markiewicz, 1972). This attests to its perceived importance in persuading listeners to purchase the products offered. However, as McGuire (1968) points out in his review, very little theoretical or empirical work has been done on the use of humor in persuasive messages.

Humor is defined as a stimulus that appeals to a sense of the absurd or incongruous, and that evokes expressions of amusement. Thus, humor is used in a broad sense to denote wit, satire, turns of phrase, irony, etc., unless a particular form is specified. The majority of the studies reviewed used verbal material for the humor stimulus. The most common measure of whether the stimulus was perceived as funny has been recipients' written responses to a question asking how humorous, if at all, the stimulus was.

An information-processing model of persuasion (e.g., Hovland, Janis, & Kelley, 1953) is used here in considering how humor might affect the persuasion process. In the Hovland approach, the processing of a persuasive communication includes sequential cognitive actions of attending to, comprehending, accepting, and retaining acceptance of a persuasive communication. If recipients of a message complete all of these stages, persuasion results.

A number of advertising agencies consulted by the author to determine what they had learned about the effectiveness of humor in advertising provided some useful opinions, but not experimental literature (Leo Burnett Company, Incorporated, Chicago; E. I. DuPont De Nemours and Company, Wilmington, Delaware; Advertising Research Foundation, Incorporated, New York, New York; J. Walter Thompson Company, New York, New York). As Weingarten (1967) points out, although humorous advertisements have had some notable successes, the contribution of humor cannot be isolated from changes in promotional techniques, product prices, and revamping of merchandising. The dispute over humor's effectiveness in advertising, centers around the selling-power of humorous commercials. That is, there is general agreement (without research evidence, apparently) that humor is likely to increase attention, but humor's effect on the comprehension, yielding, and ultimately buying stages is questioned.

This review of research dealing with humor's effects on responses to messages attempts to point out some methodological problems of the attitude change area in general, as well as of the humor and persuasion issue. Studies are divided into three main sections. The first section deals with studies that did not employ serious message controls, and therefore confounded the effects of humor incorporated into a message with factors such as message arguments, source variables, etc. Second, studies which used serious messages for control groups as well as humorous messages are discussed. Third, studies which offer implications for the effects of humor which is external to (and sometimes unrelated to) the adjacent message are dealt with.

#### EFFECTS OF HUMOROUS MESSAGES

Of studies reviewed in this section, the investigator asked the following question: Is satire an effective vehicle for persuasion?<sup>1</sup> These studies almost all use students as subjects (Ss) and in general suffer from methodological weaknesses rendering their results difficult to interpret.

Using a pretest, posttest design, Berlo and Kumata (1956) determined the persuasive impact of a satire attacking congressional investigations and Senator Joseph McCarthy. Control Ss received a lecture during the two hour period. Semantic differential ratings indicated that experimental Ss' attitudes

<sup>1</sup>An exception is the study by Windes (1961) which used humor other than satire, but is included in this section.

towards congressional investigations became significantly less favorable ( $p < .02$ ).

Charles R. Gruner has conducted several studies on the effects of humorous messages. His doctoral dissertation (1964) addressed the effectiveness of oral satire for changing attitude. In this initial study (reported also in 1965a), a satire attacking censorship was played for experimental Ss, while controls did not hear the recording. Pretests (3 weeks prior to the experimental manipulations), immediate and delayed (4 weeks) posttests measured attitude toward censorship using Thurstone scales.

Ss were told to complete the forms as part of a "survey of student opinion on censorship." Experimental Ss were told that they were a trial audience for an after-dinner speech to be entered in a contest. When these Ss were then given another survey of student opinion on censorship, they were informed that the purpose was to see "how stable or unstable" opinions on censorship were; and that it was coincidence that the tape recording concerned this topic. Attitudes on posttests did not change significantly from those on pretests.

Attributing the lack of attitude change in the previous study to Ss' failure to draw the conclusion implied by the speech, Gruner (1966) attempted to correct this by introducing the speech as a satire critical of censorship. The same tape recording was used, as well as the same basic pre- (2 weeks prior), post-, delayed (3 weeks) posttest design. Once again, he found that neither the

no-message control groups nor the experimental groups changed attitudes significantly. Those who had been mildly in favor of censorship shifted significantly from the pretest to the posttests on both Thurstone and semantic differential scales ( $.10 > p > .05$ ). However, this is likely to have been at least partially due to regression to the mean since these Ss had the most extreme scores originally.

Zeman (1967), using a posttest-only design had high school students listen to a satire on censorship previously used by Gruner (1964, 1966). Two experimental conditions received the satiric message, and a control group heard no message and completed the attitude scale. The experimental conditions differed only in the instructions preceding the satire. One condition was told that the satire "pokes fun at" censorship, while the other was told that the speech deals with censorship. Although the former condition showed more agreement with the satire than the latter, ( $p < .02$ ), neither experimental condition differed significantly from the control group. The condition in which Ss were not told the purpose of the satire (to ridicule censorship) showed a slight boomerang effect possibly due to miscomprehension of the message.

In a subsequent study Gruner (1967a) used editorial satirical columns of Art Buchwald. Experimental Ss were told the author and theses of the columns. Control Ss filled out the attitude scales before receiving the columns. Experimental Ss changed their attitudes from those on pretests to a significant degree

( $p < .01$ ) in the direction advocated by the columns. Controls missed the satiric point and often took the columns literally.

Gruner (1971b) considered the effects of satire directed against persons (ad hominem satire). Ss received one of three booklets containing experimental materials. In one condition, Ss read one editorial column by Art Buchwald satirizing President Richard M. Nixon. In a second condition, Ss read two satires by Buchwald ridiculing President Nixon. In the third condition, Ss read a satire by Buchwald which did not discuss Nixon. All Ss completed scales evaluating the humorousness/lightness of the editorials, and rated Nixon on semantic differential scales measuring authoritativeness and character. Gruner found no significant effect of treatments on the authoritativeness ratings. The character ratings showed a significant treatment effect ( $p = .05$ ) with the three means ordered in the direction expected (Controls were most favorable to Nixon, one anti-Nixon satire condition less favorable, and two anti-Nixon satires condition least favorable.) However, none of the contrasts between conditions was significant.

Windes (1961) had subjects judge campaign speeches by Adlai E. Stevenson as effective or ineffective "in terms of advancing the candidate's cause." Subjects sampled were "experts" involved in the 1956 presidential campaign. They included campaign associates, Democratic/Republican politicians, newspaper and television press, and students of public address. Out of the 105 solicited, 64 responses were complete enough to use in this analysis.



Subjects were given a list of 43 major addresses, the dates, places and short synopses of what had been said.

High agreement was found for 6 speeches judged as most effective and 6 as most ineffective. These 12 speeches were then analyzed for factors associated with effectiveness. Among those factors associated with effective and not with ineffective speeches were introductions containing humor, irony, and satire. In addition to the problem of determining what the contribution of humor was to speech effectiveness, is that Ss are likely to have confused some of the 43 speeches they were asked to recall and judge; since they did not make their judgments immediately after hearing them. Attitudes toward speech topics were not measured in this study.

Thus, out of the seven studies reviewed in this section, three failed to find any change in attitudes following receipt of the humorous message. Of the other four which did observe effects due to the humorous messages, one (Gruner, 1967a) only found effects when Ss were told the point of the satire; another (Zeman, 1967) supports the view of satire's greater effectiveness when recipients know its purpose; and a third study (Windes, 1961) did not actually measure attitude change due to the speeches. Whether or not the "humorous" message was perceived as funny is questionable in all of these studies. Table 1 summarizes the results of these studies.

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Insert Table 1 about here  
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TABLE 1

## STUDIES CONSIDERING THE EFFECTS OF HUMOROUS MESSAGES

Reference	Results			
	Compre- hension	Reten- tion	Atti- tude	Ratings of Source
<u>I. Humorous Message Only</u>				
Berlo & Kumata (1956)	+a		+	-
Gruner (1965a)	-		0	
Gruner (1966)	+		0	
Gruner (1967a)	+		+	
Gruner (1971a)			0	
Windes (1961)			+?	
Zeman (1967)			0	
<u>II. Serious Message Control</u>				
Gibb (1964)		+		
Gruner (1967b)		0		+
Gruner (1970)		0		+
Gruner (1971b)			+?	
Gruner (1972)	-		0	
Kennedy (1972)		0	0	+
Kilpela (1961)		0	0	
Lull (1940)			0	
Markiewicz (1972) Experiment I, Chapter 2		0	+?	+
Markiewicz (1972) Experiment II, Chapter 2		-	0	0
Markiewicz (1972) Experiment I, Chapter 3		-	-	-
Markiewicz (1972) Experiment II, Chapter 3			0	+

TABLE 1  
(continued)

Reference	Results			
	Compre- hension	Reten- tion	Atti- tude	Ratings of Source
Serious Message Control				
McGown (1967)			0	0
Pokorny (1965)			0	
Pokorny & Gruner (1969)			0	
Taylor (1964)		0		
Youngman (1966)			0	

"+" in the Attitude column indicates that a significant change in attitude followed receipt of the humorous message. "0" indicates no significant change in I, and in II that there were no significant differences in attitude for humorous vs. serious message. "-" indicates that less attitude change resulted for humorous than for serious message.

"+" in the Ratings of Source column indicates that the source of the humorous message was rated significantly more favorably than that of the serious message. "-" indicates that the humor source was rated less favorably. "0" indicates no significant differences in source ratings for humorous vs. serious messages.

"+" in the Comprehension column indicates that Ss understood the humorous message, "-" indicates that they did not.

"0" in the Retention column indicates that retention of Ss in the humorous message and serious message groups did not differ significantly, "+" means better retention in the humorous message condition.

## STUDIES WITH SERIOUS VERSUS HUMOROUS MESSAGES

Investigators of research included in this section asked the following question: Does the addition of humor to a message enhance its persuasiveness? In addition to those studies considering attitude change as a dependent measure, studies concerned with the effects of humor on retention and speaker ethos are also considered in this section.

Lull (1940) studied the effectiveness of humor in persuasive speeches for which the topic (state medicine) and purpose of the speaker were serious. He defined the humor by both the stimulus (a variety of types of humor including puns, turns of phrase, or humorous anecdotes) and the response (laughter during the speech presentation and ratings of humorousness). Four speeches were prepared, two in favor of and two opposed to state medicine. The two messages on either side of the issue differed only in that one version contained "what was thought to be humorous material" while the other did not. The humorous speech was similar to the non-humorous speech in the arguments presented, the arrangement of the arguments, the proportion of the speech devoted to each argument, and total length. A no-speech control group also filled out the attitude scales.

The check on the humor of the speeches confirmed the belief that the two humorous speeches were distinctly more humorous than the non-humorous speeches. The results of the attitude measures indicated that all experimental groups significantly changed their attitudes in the predicted directions on both the posttest and

delayed (3 weeks) posttests from pretests two weeks before the speeches were heard. However, no significant differences were found between groups exposed to the humorous and non-humorous speeches. The humorous and serious speeches were judged about equally interesting and convincing by the audience.

Pokorny (1965) considered the effect of satire used as an insert in an otherwise straight-forward speech against censorship. The same tape recording of the speech without the satire was used for the direct speech. A five-minute poetry reading was played for control Ss. All Ss filled out questionnaires measuring their attitudes toward censorship, then turned them face down while a tape recording (appropriate for the condition) was played. Then they were given a second form of the attitude scale, asked to fill it out without reference to the first and to clip to to the first scale. Both speeches were successful in producing significant attitude shifts in the advocated direction, but control Ss also changed in the direction advocated in the speech. No significant differences between responses of those exposed to humorous compared with serious speeches were found.

In an article based upon the data of Pokorny's (1965) study, Pokorny and Gruner (1969) matched Ss in all three groups as closely as possible on initial opinions, and dropped the data for 42 Ss. Even so, no significant differences between conditions were observed.

Kilpela (1961) used the "Woodward-Shift-of-Opinion" ballot in his study. This ballot is reactive since Ss must respond immediately before the speech is presented as well as afterwards. No significant differences in attitude change between humorous and serious message groups were found. Nor were differences in retention found.

In a doctoral dissertation Allan J. Kennedy (1972) considered the effects of humorous message content upon speaker ethos, persuasiveness, and retention. Using a message arguing in favor of censorship of movies, humor was added at various points throughout the speech. Thus the approximately 15 minute serious speech was lengthened to about 18 minutes in the humor condition. Kennedy used a variety of humor including puns, witticisms, comparison, burlesque, hyperbole, understatement, and irony. Two humor conditions were created by varying the introduction to the humorous speech. In one condition, Ss were told that the speech would be funny and were asked to laugh at it. In another condition they were not told that the speech would be funny. Ss in all groups were students in an introductory history course.

Ratings of the source were obtained using semantic differential scales measuring dynamism, qualification (expertise), and safety (evaluative, trustworthiness) factors (adopted from Berlo, Lemert, & Mertz, 1969-70). Retention was measured using a 20-question multiple-choice test. Both audible laughter and 5 bipolar rating scales were used to measure humor effectiveness. Attitudes were

measured by an 18-item Likert-type scale. Dependent measures were taken both immediately following receipt of the messages and four weeks later.

The humorous message was successful in evoking appropriate laughter and rating responses. The "laughter-begging" introduction to the humorous message more than doubled the number of laughs to the message compared with the other humorous message condition. No significant differences between experimental groups were found on the attitude or retention measures. On an immediate measure of ethos, the humorous source was rated more positively on the dynamism dimension. On the four-week delayed measure, the speaker who had employed humor had a significantly enhanced image compared to the serious speaker on all three ethos dimensions. However, neither attitude nor retention measures showed significant effects.

Audience responses to different types of humor incorporated into an informative speech were studied by Youngman (1966). Three speeches were used for different groups of Ss. One speech contained germane humor, humor that supplemented the point of the communication by providing an illustration of it. Another contained an equal amount of non-germane humor, and the control message contained no humor. No significant differences were found on measures of attitudes, "effectiveness", appropriateness of speaker's approach, or enjoyableness of the speech. Since Ss already agreed with the thesis of the speech (goals of higher education are to become more intellectually curious), this may have been a weak test of the persuasive impact of humor.

Mary Ann McGown (1967) used Art Hoppe's satiric editorial "Sane Capital Punishment" and a direct message similar in arguments, interest, supporting material, length, and readability. In a pretest-posttest design, Ss completed semantic differential scales towards capital punishment two weeks before and immediately after reading one of the two messages. The main thesis of the messages was stated. No significant differences on the attitude measure were found. Ratings of the source's "character" differed at a marginally significant level ( $p < .10$ ), with the "direct" source rated as higher in character than the "satirical" source. No significant differences in ratings of authoritativeness of the source were found. McGown points out that the messages used were not persuasive, and used only one argument. Gruner (1972) replicated McGown's study using seven 5-point Likert-type scales to measure attitude instead of McGown's measure. He also found no significant differences in attitudes between conditions. Of the 56 Ss reading the satiric message, only 17 checked its correct thesis. However, poor comprehension was also true for the direct message (only 14 out of 54 correctly chose its thesis.)

Subjects read an Art Hoppe satire on Martha Mitchell, a short biographical sketch of Mitchell from Time, or both in another study by Gruner (1971). Attitudes towards Mitchell were measured using an ethos scale (character and authoritativeness) and a scale anchored by "Ridiculous-Sensible." On the "character" and "ridiculousness" ratings, those reading the satire were more negatively critical than



those reading the Time article (both significant at  $p < .01$ ). This result occurred in spite of ratings of the "fairness" of the articles. The Hoppe column was rated as less fair than the Time piece ( $p < .001$ ). Whether this study supports the view that satire can be persuasive, or that it can be more persuasive than direct control messages cannot be determined without further knowledge of the comparability of the Hoppe and Time messages. No information concerning comparability was reported.

In an attempt to determine under what conditions humorous messages would be more persuasive than serious control messages, Markiewicz (1972) considered several factors in interaction with the humor factor. In one study, verbal ability of Ss was a variable. Using seventh grade students in an honors English class and in an average English class, Markiewicz (1972, Experiment I, Chapter 2) gave one half of each class a humorous persuasive message and the other half a serious message comparable in arguments, length, and concluding paragraphs. No significant differences between conditions on two self-rating attitude items were found. However, on a thought-listing measure of attitudes (Cullen, 1968), those reading the humorous essay wrote more agreeing thoughts ( $p < .04$ ) than those reading the serious form. Students indicated that they would like to have other articles by the same author more in the humorous than in the serious essay conditions ( $p < .002$ ), and that the humorous essay was more interesting than the serious one ( $p < .04$ ). No significant differences in recall were found.

In another experiment Markiewicz (1972, Experiment II, Chapter 2) varied source credibility (high vs. low) and message appeal (humorous vs. serious) in a 2 X 2 design. The humorous essay was a satire by Art Buchwald, and the serious essay was comparable in arguments, length, and order of arguments. No significant effects on attitudes or evaluations of the articles were found. Subjects receiving the serious message performed better on the recognition test ( $p < .005$ ) than did those who had received the satirical article. The humor and credibility manipulation checks indicated that these manipulations were weak.

Initial opinion was another factor which Markiewicz (1972, Experiment I, Chapter 3) hypothesized would interact significantly with message appeal. Initial opinion was varied by assigning Ss to write in favor of, against, or on a different topic from a persuasive message they then read. Subjects were not actually required to write essays. Greenwald (1969) had found that Ss assigned to write in support of a position changed their attitudes to agree more with the assigned positions without writing the essays. The persuasive essay was either a humorous treatment of why campus police should carry guns or a serious treatment comparable in arguments, length, and two summary paragraphs. Thought-listing (Cullen, 1968) and Likert-type measures of attitudes indicated that the humorous essay led to significantly less attitude change than did the serious control essay ( $p < .02$  and  $p < .01$ ). No significant interaction was found. The serious author was rated

as significantly more trustworthy than the humorous author ( $p < .01$ ). Further, those reading the serious essay performed significantly better on a comprehension test ( $p < .001$ ) than did those reading the humorous essay.

In another experiment considering initial opinions of Ss, Markiewicz (1972, Experiment II, Chapter 3) did not manipulate initial opinions, but used pretest scores to categorize Ss. A humorous or a comparable serious one minute public service film on safetybelt usage was shown to Ss. Dependent measures included three self-rating attitude scales, as well as semantic differential-type ratings of the source's trustworthiness and the film's interestingness. A 2 X 2 (initial opinion by message appeal) multivariate analysis of variance performed on the three attitude responses yielded a significant interaction effect ( $p < .05$ ). This indicated that Ss initially opposed were more persuaded by the humorous than the serious film, while those initially in favor or neutral were more persuaded by the serious film. The humorous source was rated as more trustworthy ( $p < .04$ ) than the serious source; and the humorous film was rated as more interesting than the serious film ( $p < .002$ ).

Several other studies which have considered effects on other variables relevant to an understanding of effects of humor on attitudes will be discussed next. A humorous biology lecture was found to significantly increase retention compared to a serious one (Gibb, 1964). Since intact classes were used for each group, Ss

were not randomly assigned to conditions and instructor was confounded with condition. The pretest retention scores used were from the University of Utah Placement Test in biology administered at least one quarter prior to the lecture. Gibb used two forms of serious control lectures. The first was identical to the humorous one, except that the humor was deleted. The second was similar in information, but some information was repeated in order to make the lecture identical in length to the humorous one. On immediate retention tests (the same as used for the pretest) the humorous lecture was retained significantly better than either control ( $p < .01$ ). On a retention test taken 3 weeks later, those hearing the humorous lecture still performed better than those hearing the shorter control lecture.

Taylor (1964)'s study attempted to determine whether differences in retention would follow humorous vs. serious recordings on how the ideas of an eighteenth century minister affected the thinking of men today. All SS were given a test to determine how much information they possessed on the topic before, immediately after and one week after they heard the recordings. No significant differences in retention between the serious and humorous conditions were found at either time. Subjects in this study were high school students in a beginning speech course, and were likely to have been highly motivated to perform well in all conditions. Procedural details were not reported in this paper.

A speech on listening with or without "appropriate" humor inserted was used for two studies by Gruner (1967b, 1970). In these studies, information gain was determined, as well as ratings of speaker. In the first study (1967b), Ss were asked to react to a speech which was being considered for inclusion in the course next semester and that their reactions to both the speaker and the speech were wanted after the speech. No significant differences between conditions were found on ratings of authoritativeness, interest, or in information retention. However, the speaker in the humor condition was rated as significantly higher ( $p < .01$ ) than in the serious speech condition on attributes of "character."

In a more recent study Gruner (1970) used a 2 X 2 design in which humor vs. serious was one factor and interesting vs. dull was the other. The dull message was created by rewriting the interesting version to remove elements of interest--personal words and personal sentences. The experiment was conducted during the laboratory session of a speech class.

Ratings of Ss on the "interestingness" and "humorousness" scales indicated that the humor and interest factors had been manipulated successfully. Those in the appropriate groups rated the speeches as significantly ( $p < .01$ ) funnier and more interesting. Recipients of the interesting speech retained the message significantly more ( $p < .05$ ) than did those who heard the dull speech. Humor had no significant effect on retention.

Of particular interest in this study was the finding that the interaction effect of the two factors was significant ( $p < .01$ ) for ratings of character, authoritativeness, and interest. In all these cases, adding humor to the dull message produced more favorable ratings, but adding humor to the interesting speech did not. This study implies that a dull speaker benefits from including humor. If one is already interesting, however, little is to be gained from using it.

Of studies in which serious message control conditions were included, none found that including humor in a message definitely facilitated persuasion. Two experiments (Markiewicz, 1972, Experiment I, Chapter 3; Gruner, 1971b) lent some weak support to the view that humor added to a message increases its persuasiveness. However, another experiment (Markiewicz, 1972, Experiment I, Chapter 3) found that a humorous message led to less persuasion than a serious control message. Ten studies found no significant differences in attitudes as a function of message appeal.

Out of the nine studies including message retention measures, only one (Gibb, 1964) demonstrated a significant increase in retention following the humorous compared with the serious message. Two studies (Markiewicz, 1972, Experiment II, Chapter 2; Experiment I, Chapter 3) found that the humorous message recipients performed more poorly on retention tests than serious message recipients.

In five experiments (Gruner, 1967b, 1970; Kennedy, 1972; Markiewicz, 1972, Experiment I, Chapter 2; Experiment I, Chapter 3) the humorous source was rated more positively than the serious source;

and in one (Markiewicz, 1972, Experiment I, Chapter 3) the opposite occurred. Two experiments (Markiewicz, 1972, Experiment I, Chapter 2; Experiment II, Chapter 3) found the humorous messages rated as more interesting than the serious ones; while two others (Gruner, 1967b; Lull, 1940) found humorous and serious speeches rated as equally interesting. Table 1 summarizes the results of these studies.

In light of Gruner's (1970) study showing the importance of the interestingness of stimulus speeches, it would be helpful to know whether the reviewed studies used dull or interesting speeches with or without humor. Since most authors were speech specialists, it is more likely that the speeches used were interesting than dull.

#### Problems with attitude research on humorous messages

What is a good control message? Messages differing from each other because of the inclusion or omission of humor also necessarily differ on some other dimensions as well. For example, many of the studies reviewed inserted additional humorous material into a serious message (Pokorny, 1965; Pokorny & Gruner, 1969; Kennedy, 1972; Gruner, 1967b, 1970). The additional humor made the humorous message longer than the serious message. This might result in an additional factor (e.g., more time to rehearse arguments) that could account for differences in responses to the messages. Those studies which tried to control message length had to insert some additional material (e.g., repetition or elaboration of arguments or introduction of new ones.) Thus one cannot determine what is responsible for differences obtained--the manipulation of the

independent variable or some seemingly innocuous aspect of the control message. The problem of an adequate control message makes especially necessary the use of several issues within the same study. If the effects of the independent variable are the same for all issues, one can be more confident that these effects are due to the intended manipulation rather than some confounded factor.

How funny is funny enough? The variation of degree in funniness of messages used in prior research complicated the interpretation of results. Sometimes the humorous messages are actually only attempts at humor. This problem was common in studies using satire, a complex and subtle form of humor. Since the degree of funniness has never been systematically varied in an attitude study, it is difficult to determine what effect this factor might have on responses to the message. Further, different methods of manipulating the humor factor might yield different results. Does critical, hostile humor have the same effects as slapstick?

How does one measure attention in the laboratory? The majority of the research discussed took place in a classroom setting. The pressure to attend to the messages was likely to have been great, making it probable that attention was held constant (high) across conditions. Thus, one cannot determine from these studies whether in the "real" world persons would attend more to a humorous message than to a serious one. Future studies might use attention as a dependent variable.



How much do demand characteristics contaminate results of humor and persuasion studies? In these studies two kinds of experimental demands are made of Ss. First, the "persuasion to be persuaded" effect might have induced some Ss to indicate that their attitudes were changed. This problem was especially likely in studies that used rather transparent cover stories (e.g., Pokorny, 1965; Gruner, 1966). In addition to this demand, Ss in the humor conditions experienced the demand to rate the message as humorous. Thus, when their instructors appeared to be asking them to rate the obvious attempt at humor as funny, many complied. Snyder (1971) has shown that Ss' judgments of humor are affected by demand characteristics. This makes it particularly difficult to determine the success of humor manipulations.

How might variations in the persuasive messages affect the results of studies? The variety of messages used in these studies adds to the confusion of interpretations. Complex messages make problems of comprehension more likely. Not all studies actually measured comprehension, although often authors suggested that Ss did not understand the messages (e.g., Gruner, 1965a, Zeman, 1967). Messages also vary in persuasiveness. If the arguments contained in a humorous message are weak, a possible extra boost due to humor might not be detected. On the other end of the continuum, powerful messages might cause ceiling effects that would mask additional gains due to humor.

How do subject populations affect results? Very little information exists about how persons other than students react to humorous messages. In addition to the limitation on the generality of the results, the use of students as Ss often creates other problems as well. For example, students in speech classes hear numerous speeches on various topics. Thus, Ss used as no-message controls may have recently heard a message on the persuasion topic. Pokorny and Gruner (1969) point out that this occurred in their experiment. Other studies reviewed which used speech students as Ss (Gruner, 1966, 1967a, 1967b, 1970, 1971; Lull, 1940; Pokorny, 1965) might also suffer from this absence of an uncontaminated no-message control group. Another problem increased by the use of students as Ss is the aggravation of "evaluation apprehension" (Rosenberg, 1965) and of compliance to experimental demand characteristics. Students may be particularly likely to comply with what they perceive as the experimenter's (E) wishes, when the E is their teacher.

How does one prove the null hypothesis? The research reviewed points to the same result--humor does not increase the persuasiveness of a message. The majority of the studies reviewed, however, suffered in varying degrees methodological mistakes that could mask actual differences.

## HUMOR EXTERNAL TO THE MESSAGE AND RELATED STUDIES

Studies reviewed in the previous two sections considered humor incorporated into persuasive messages. One problem with determining the effect of humorous messages compared with serious control messages is that humor incorporated into a message is likely also to affect the interpretation of the arguments contained. Thus, one is unable to determine what proportion of any effects observed is due to the mood created by the humor and what proportion is due to the new interpretation of the arguments. Therefore, studies which considered the effects of humor contiguous to the message, rather than incorporated into it, offer clearer information concerning humor's effects on persuasion. In this section studies that used contiguous humor which was either relevant or irrelevant to the messages are reviewed. This research is also relevant to the hypothesis that humor might function as a positive reinforcer (Levine, 1968; Smith, 1961; Freud, 1916).

Studies using relevant contiguous humor

Brinkman (1968) investigated the persuasiveness of cartoons added to editorials. Using two cartoons on different topics and four editorials on each of these topics, Brinkman found that presentation of both a cartoon and an editorial resulted in more attitude change than either presented alone. Because no statistical analyses were reported, one cannot assess the strength or importance of these differences.

Markiewicz (1972, Experiment III, Chapter 2) varied whether or not a cartoon was added to or omitted from short or longer persuasive letters in a 2 X 2 factorial design. An index of persuasion in this study was the percentage of recipients who complied with the request of returning and commenting on enclosed postcards. No significant main effect of the cartoon nor interaction effect occurred.

In another study (Markiewicz, 1972, Experiment IV, Chapter 2), either a humorous film, a serious film, or no film on safetybelt usage was shown as an introduction to a standard recorded message advocating enactment of a law to enforce safetybelt usage. Subjects were told that the source of the film and message were the same. No significant differences on attitude or behavioral intentions measures were found. However, in the serious film introduction condition, the source was rated as significantly better informed than in the humorous film introduction condition ( $p < .008$ ).

#### Studies using irrelevant contiguous humor

A number of studies have found that associating an irrelevant reinforcer with a persuasive message affected its persuasiveness (e.g., Janis, Kaye, & Kirschner, 1965; Rosnow, 1965, 1966; Rosnow & Lana, 1965; Rosnow & Russell, 1963). If humor functions as a positive reinforcer, humor placed in temporal proximity to persuasive communications should enhance their persuasiveness. Studies which used humor adjacent to persuasive messages are considered here.

In an attempt to change attitudes towards eating grasshoppers (Smith, 1961), Ss were induced to eat some. For one group, immediately before they began eating, a humorous record, Bob Newhart's "The Buttndown Mind Strikes Back," was played and continued to play while the Ss ate grasshoppers. The results indicated that Ss did not change their attitudes towards eating grasshoppers. Smith suggested that a possible reason for the failure of humor to increase attitude change was that the humor was irrelevant to the task of eating grasshoppers. An additional reason might have been that the explanation for playing the record was likely to have added to the confusion of Ss, rather than amused and relaxed them.

Using a humorous silent film as a distraction, Festinger and Maccoby (1964) played a persuasive message to some Ss. Other Ss saw the speaker on film while listening to his speech. Subjects who watched the humorous film changed their attitudes more than those viewing the speaker. Distraction, rather than humor, was being studied by these investigators. Both this experiment and Smith's (1961) study confounded the effect of the humor with distraction.

In three experiments Markiewicz (1972, Experiment III, Chapter 3) varied the contexts in which five persuasive messages were embedded. Some Ss heard messages embedded in a humorous background program, while others heard the same messages embedded in a serious program. After each persuasive message Ss responded to an opinion item on that topic. Analyses showed that attitude did not vary

significantly as a function of humorous vs. serious contexts. This was true even though the analysis was powerful enough to detect a difference as small as .625 on the 15-point Likert-type scale used to measure attitude.

Summary of experiments using humor external to the persuasive message

Of the three studies in which relevant humor was presented adjacent to serious messages, only one (Brinkman, 1968) found that humor increased the effect of the persuasive message. This finding must be regarded as questionable due to Brinkman's failure to report the magnitude of the difference. The other two experiments did not support this finding. Among these studies using humor irrelevant to the persuasive messages, two (Smith, 1961; Festinger & Maccoby, 1964) could be considered as confounding humor with distraction. Finally, although research reviewed (e.g., Rosnow & associates, 1963, 1965, 1966; Janis et al., 1965) did suggest that humor might facilitate persuasion if it functions as a positive reinforcer, Markiewicz (1972, Experiment III, Chapter 3) found that persuasion did not vary significantly as a function of humorous versus serious contexts.

CONCLUSION

The research reviewed indicated that humor either incorporated into or adjacent to a persuasive message does not increase the persuasive impact of the message. Humor's effects on each of the information processing stages varied.

Since captive audiences were used in the majority of the research reviewed, attention was maintained constantly high. Thus, the effects of humor on attention remains open to further investigation.

Comprehension of complex humorous messages was sometimes poorer than that of serious messages. If simple messages were employed, however, humor did not apparently affect comprehension. In general, retention was not affected by the incorporation of humor into a message.

Humorous sources were generally perceived as more favorable than serious ones. However, this was not reflected in attitudes measured. Even using more direct measures of acceptance, such as indicating degree of agreement with the message, humor was not found to affect acceptance.

In most cases, therefore, humor does not affect comprehension, acceptance, or retention. Humor's effects on attention have not been determined.

## Chapter 2

### PRELIMINARY STUDIES

The present research is concerned with two general issues within the context of the area of effects of humor on persuasion: (a) Under what conditions can a humorous persuasive message increase the amount of persuasion compared with a serious control message? (b) Can humor extrinsic to a persuasive message increase its persuasiveness? Although some researchers have considered the question of whether or not humor is effective (Gruner, 1971b, 1972; Kennedy, 1972; Lull, 1940), they have provided few clues about when it will be effective. No prior researchers addressed the second question.

The present research which investigated the first question (Experiments I, II) used serious and humorous messages similar in length and arguments, so that the effects of the humor could be determined with minimal confounding of humor with message content and length effects. Factors that were hypothesized to interact significantly with the type of message appeal (humorous vs. serious) were varied orthogonally to this factor. Thus, verbal ability of Ss and credibility of the source were varied in Experiment I and II respectively. The research addressing the second question (Experiments III, IV) used standard persuasive messages adjacent to humorous vs. serious material.



An information-processing analysis of the persuasion process (Hovland, Janis, & Kelley, 1953; McGuire, 1969) was applied to the study of the effects of humor on attitude change. Thus, audience attention, comprehension, yielding to, and retention of persuasive arguments was measured if these stages were considered to be variable. When captive audiences were used, attention was assumed to be constant. Comprehension was measured by multiple choice tests, and retention of persuasive arguments was measured by recall tests. The degree of yielding to persuasive arguments was tapped by measuring reactions of message recipients to the message in general (i.e., listing thoughts elicited by the message, indicating extent of agreement with the arguments and conclusions of the message). Attitude change was measured by self-rating attitude items or by a Thurstone Equal Appearing Intervals Scale.

In order to obtain an approximation of what percent of television advertisements used some humor, a random sample of advertisements was rated during one week--August 8 - 14th, 1972. Each advertisement was categorized according to whether it used some humor, did not use humor, or was ambiguous. The ambiguous category was created to label those advertisements which might have been intended to be humorous, but were not clearly funny to the judge.

The results of this survey were that 42% of the 305 advertisements sampled used some form of humor. An additional 8% might have attempted to be funny (the ambiguous category). This suggests that humor is a major component of appeals used in television advertisements.

The survey did not extend to other types of advertisements such as newspaper, radio, billboards, etc., and the percent of humor used for these forms of advertisements was not determined. However, television is probably one of the most important media for advertising, and the result of this survey attests to the importance of learning more about the effects of humor on persuasion.

EXPERIMENT I: HONORS VERSUS AVERAGE ENGLISH STUDENTS' RESPONSES  
TO HUMOROUS VERSUS SERIOUS PERSUASIVE MESSAGES

Method

Subjects. Seventh grade students in two English classes at Eastmoor Junior High School in Columbus, Ohio served as Ss in this experiment. One of the classes was an honors group (n=31), and the other class was an average group (n=24).

Procedure. A 2 X 2 factorial design was used, with humorous vs. serious essay and honors vs. average class as factors. The experiment was introduced by the usual English teacher (the same person in both classes). Students were told that the experimenter was a librarian trying to choose articles for use with children their age. Thus, she would like them to read an essay and answer some questions about it. Students were also asked not to discuss the essay with each other until all questionnaires had been collected.

Half of each class received the humorous essay, while the other half received the serious essay. The thesis of the essays was that school should be held during the summer. The humorous and serious essays were similar in arguments presented, approximate length (about

500 words long) and concluding paragraph. A variety of types of humor was used in the humorous essay, including primarily plays on words and incongruity humor.

After the essays had been read they were collected and the questionnaires were distributed. The experimenter read each question with the students in order to insure that they understood how to fill out the scales. Two questions measured students' attitudes: "Do you like the idea of having school all year?" (Students could check "yes," "no," or "not sure.") "Would you want to have school in the summer?" (The Ss circled the number on a 5-point scale with end labels "definitely would not" and "definitely would want.") They completed 5-point semantic differential-type scales on the funniness and interestingness of the essay. They also responded to a question asking whether or not they wished to get other articles by the same author.

In order to be certain that students understood the essay, they were asked whether the author believed school should be held during the summer. A recall test was then given, with students asked to list "as many reasons as you remember" that the author gave for his belief. Finally, Ss were asked to "list any ideas or thoughts you had about what the author said, when you were reading the essay." Since students asked for clarification, E told the class to list ideas that "something the author wrote made you think of, or reasons why you thought he was right or wrong." Seven minutes were allowed for the recall section and 7 minutes for the ideas section. After turning in questionnaires, students discussed the essay.

## Results

The check on the humor manipulation showed that the humorous essay was rated as significantly funnier than the serious essay at the  $p < .001$  level ( $F=19.42$ ,  $df=1/51$ ). The mean rating for the serious essay was 4.43 (5="not at all funny" and 1="very funny"), and for the humorous essay was 3.23, or moderately funny.

No significant effects on the two attitude self-ratings were found. Three judges rated the thoughts Ss had listed, placing them into one of three categories: (a) agreeing with the message (b) disagreeing (c) neutral. The average of the three judges' ratings was used for the following means. Those reading the humorous essay wrote more agreeing ( $\bar{X}=.40$  vs.  $.05$ ), more neutral ( $\bar{X}=.45$  vs.  $.22$ ), and fewer disagreeing ( $\bar{X}=2.02$  vs.  $2.46$ ) thoughts than those reading the serious essay. An analysis of variance on the averages of the judges' ratings was performed for each category. The main effect for the humor factor was significant for the number of agreeing thoughts ( $F=4.58$ ,  $df=1/51$ ,  $p < .04$ ), marginally significant for the number of disagreeing thoughts ( $F=3.56$ ,  $df=1/51$ ,  $p < .06$ ), and non-significant for the neutral thoughts ( $F=1.9$ ). No significant effect of honors vs. average classes nor interaction effect was found on the attitude measures. The judges' ratings of the number of thoughts in each category for each S were intercorrelated, and an average r obtained through the use of Fisher's r to Z transformation. Interjudge reliabilities for each category were .76 for agreeing thoughts, .83 for disagreeing thoughts, and only .15 for neutral thoughts.

Those reading the humorous essay rated it as more interesting than did those reading the serious essay ( $F=4.30$ ,  $df=1/51$ ,  $p<.04$ ). Students were more in favor of having other articles by the same author in the humorous essay condition than in the serious essay condition ( $F=10.64$ ,  $df=1/51$ ,  $p<.002$ ).

Honors students performed significantly better on the recall measure than average students ( $F=14.67$ ,  $df=1/51$ ,  $p<.001$ ). The honors class recalled a mean of 4.85 reasons given in the essay, while average students recalled a mean of 3.86 reasons. Recall of humorous vs. serious essay readers did not differ significantly ( $F=2.26$ ).

EXPERIMENT II: SOURCE CREDIBILITY AS A FACTOR IN  
HUMOROUS VERSUS SERIOUS MESSAGE EFFECTIVENESS

Method

Three studies in which the source of humor was known and favorable (Windes, 1961; Berlo & Kumata, 1956; Gruner, 1967a) found that the humorous speeches were persuasive. Gutman and Priest (1969) found that previous descriptions of the source of a joke significantly influenced ratings of the funniness of the joke. Thus, source credibility might be important in determining whether the addition of humor enhances the persuasive impact of a message. A 2 X 2 factorial design was used. High Credibility vs. Low Credibility of source and Humorous vs. Serious Message were the factors.

Subjects. Subjects were 45 undergraduates, mainly juniors, in an introductory statistics class at Ohio State University in the summer, 1971.

Procedure. Booklets for the four experimental conditions were randomly distributed to members of the class. Each booklet contained either a satirical essay by Art Buchwald attacking anti-gun control lobbyists, or a straight-forward message similar in main arguments and length (about 530 words). Before each article was one of two descriptions of the author. In the High Credibility conditions the author was described as "a highly regarded political scientist at Stanford University" who had "considered in depth the issue of gun control legislation," whose "colleagues consider him to be a very trustworthy, well-informed source." In the Low Credibility conditions the author was described as "a little-known journalist" who had "not previously considered the question and was uninformed about the issue."

All booklets contained the same instructions and dependent measures. After reading the essays Ss completed one measure of attitude--a listed thoughts procedure (Cullen, 1968) similar to the one used in Experiment I. A single-item 7-point Likert-type attitude measure was also completed. This was followed by six semantic differential-type items concerning how serious the issue was, how entertaining, interesting, and funny the essay was, as well as how biased and informed about the issue the author was. The last page of the booklet contained a multiple choice recognition test. The entire experiment was completed in 20 minutes, including the 10 minutes generally spent on the listed-thoughts measure.

## Results

The checks on the credibility induction indicated that the perceptions of the source were in the expected directions. However, a multivariate analysis of variance performed on the responses to the "informedness" and "biasedness" scales yielded only a marginally significant result for the credibility effect ( $F=2.53$ ,  $df=2/40$ ,  $p<.09$ ). Those reading the satiric essay rated it as only marginally significantly funnier than the serious essay readers rated their essay ( $F=3.26$ ,  $df=1/41$ ,  $p<.07$ ). The mean ratings on the 7-point scale were 3.04 for the humorous essay (7="extremely funny" and 1="not at all funny") and 2.16 for the serious one. Serious essay readers performed significantly better on the recognition test than did humorous essay readers ( $F=10.44$ ,  $df=1/41$ ,  $p<.002$ ). However, no significant effect on either the attitude or other semantic differential-type items was found. The mean attitude scores are in Table 1.

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 Insert Table 1 about here  
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That Ss did not understand the satire might account for their failure to perceive it as humorous. Failure to manipulate the credibility factor well prevents testing the initial interaction hypothesis.

TABLE 1  
 LIKERT-TYPE ITEM AND LISTED THOUGHTS MEAN ATTITUDE  
 SCORES-EXPERIMENT II

Credibility	Message					
	Humorous		Serious		Unweighted Means	
	Likert Item	Listed Thoughts	Likert Item	Listed Thoughts	Likert Item	Listed Thoughts
High <u>n</u>	4.36 11	4.43 11	4.91 12	4.50 12	4.63	4.46
Low <u>n</u>	4.70 10	4.23 9	4.33 12	4.34 11	4.51	4.28
Unweighted means	4.53	4.33	4.62	4.42		

Note.--Higher score indicates more persuasion on a 7-point scale.



EXPERIMENT III: EFFECTS OF A CARTOON ON RESPONSE TO  
A MAILED QUESTIONNAIRE

Method

Many advertisers believe that humor added to a message increases attention to it (Herold, 1963; Hoppe, 1969; Leavitt, 1970; Phillips, 1968). Attention was allowed to vary in this study since recipients of the messages were not captive audiences. Subjects received mailed questionnaires requesting their replies. The length of the persuasive letter as well as whether a cartoon was added were varied in a 2 X 2 factorial design with High vs. Low Persuasion and Cartoon vs. No Cartoon as factors. The added attention due to the cartoon was expected to increase the effectiveness of the longer letter (High Persuasion Condition) more than it would the shorter letter (Low Persuasion Condition), since more persuasive arguments could be attended to in the former than in the latter.

Subjects. Undergraduate students at Ohio State University in Philosophy, Psychology, and Geology classes were mailed letters in late spring, 1971. These Ss were used rather than a random sample of those in the student directory since previous experience had indicated that the directory addresses were often incorrect, and these students' more recently recorded addresses were available.

Procedure. All letters were addressed to the person by name. Letters were mimeographed and included an addressed, stamped postcard. On the postcard were questions concerning reactions to the proposed idea of establishing a recycling center. In the Low Persuasion

conditions, a short paragraph indicated that a committee of students concerned about pollution believed that using student fees to establish a recycling center would help. In another short paragraph Ss were requested to respond to the questions on the postcard and to return it as soon as possible. The High Persuasion conditions included an additional paragraph inserted between the two for the Low Persuasion conditions. This paragraph suggested reasons why recycling centers are necessary and mentioned their success at other locations. A cartoon was included or omitted at the bottom of the letter for one-half of each of the persuasion conditions. One hundred letters were mailed out for each of the four conditions. However, the total number of Ss was taken to be the number of letters mailed minus the number returned by the post office due to errors in addresses. This yielded a total of 383 Ss. The percentage of replies as well as the responses on the postcards were used as indices of persuasion.

### Results

An overall average of 35% of the 383 postcards were returned. A 2 X 2 (Cartoon vs. No Cartoon by High vs. Low Persuasion) analysis of variance was done weighting the response "returned" as 1 and "not returned" as 0. The High Persuasion letters resulted in a significantly higher percentage of returns (41%) than the Low Persuasion letters (30%) at  $p < .02$  ( $F = 4.80$ ,  $df = 1/379$ ). The percentage of returns from the Cartoon vs. No Cartoon conditions (34% vs. 37%) did not differ significantly ( $F = .14$ ). Within the Cartoon conditions the persuasion factor did not seem to affect return rate (35% vs. 33%), while it

did seem to for the No Cartoon conditions (46% vs. 26%). The interaction was found to be marginally significant at the  $p < .07$  level ( $F = 3.29$ ,  $df = 1/379$ ). This indicated that adding a cartoon in the Low Persuasion condition increased the percentage of returns, while adding it to the High Persuasion letters reduced the percentage of returns slightly. The multivariate analysis of variance performed on responses to the postcard questions produced no significant effects ( $F$ 's all  $< 1$ ). Table 2 contains the mean attitude responses on the postcards.

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 Insert Table 2 about here  
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EXPERIMENT IV: EFFECTS OF A SERIOUS VERSUS HUMOROUS INTRODUCTORY  
 FILM ON REACTIONS TO A TAPE-RECORDED PERSUASIVE MESSAGE

Method

In this experiment a humorous or serious film or no film were used as introductions before the persuasive message was played. The source of the introductory film was said to be the same as that of the persuasive message. Thus, any differences in results between conditions could be a function of variations in perceptions of the source, as well as of differences in mood created by the films.

Subjects. Subjects were 73 paid participants recruited through advertisements in the Ohio State University newspaper. They were paid \$1.25 for their participation in the half-hour experiment.

Validation of the attitude measures. A Thurstone Equal Appearing Intervals scale was constructed which measured attitudes toward a

TABLE 2  
 MEAN ATTITUDE RESPONSES: EXPERIMENT III

	Cartoon	No Cartoon	Unweighted Means
High Persuasion <u>n</u>	14.05 34	10.69 43	12.37
Low Persuasion <u>n</u>	15.81 33	13.66 24	14.73
Unweighted Means	14.93	12.17	

Note.--Lower score indicates more persuasion on a scale ranging from 0 to 45.

law enforcing the use of safetybelts. Sixty-two statements were judged as to how favorable or opposed they were to the safetybelt law by 35 women in an Ohio State University sorority. Using scale values and Q values as criteria, 20 statements were selected for the final attitude scale. A similar method was used to create an 8-item scale measuring behavioral intentions.

Procedure. A one factor design was used with Humorous Film Introduction, Serious Film Introduction, No Film Introduction, and Control forming the levels of treatment. Subjects were told that the object of the experiment was to determine how various public service announcements were evaluated. Some Ss saw a humorous film on safetybelts and then heard the persuasive tape-recorded message (Humorous Introduction condition). Others saw a serious film on safetybelts and heard the persuasive message (Serious Introduction condition). In a third condition no film was seen, but the persuasive message was heard (No Film condition). The message proposed that a safetybelt usage law be enacted. In the film conditions, the film was played until the end, and was placed on "still frame." Thus a picture of the actors in the film remained on the screen while the persuasive message was being played.

Subjects completed the attitude and behavioral intention scales; rated the source of the film and message (or message only) on 7-point semantic differential-type scales of trustworthiness, informedness, and likeableness; and rated the stimuli on interestingness, humor, and arousingness. Finally, they completed a comprehension test

composed of six multiple choice questions. Subjects in the Control condition completed only the attitude and behavioral intention scales, without hearing any message.

### Results

The humorous film and message were rated as significantly funnier ( $\bar{X}=4.88$ , 1="not at all funny," 7="extremely funny") than the serious film and message ( $\bar{X}=1.55$ ) at  $p<.001$  ( $F=63.72$ ,  $df=1/50$ ). Analyses of variance performed on the attitude and behavioral intention measures resulted in no significant effects. This lack of significant differences between control and experimental groups indicated that the message was entirely ineffective. The mean attitude and behavioral intention scores are shown in Table 3.

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Insert Table 3 about here  
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"Informedness" ratings differed significantly among conditions ( $F=4.08$ ,  $df=2/50$ ,  $p<.023$ ). The source in the Serious Introduction condition was rated as significantly more informed than the source in the Humorous Introduction condition ( $F=7.67$ ,  $df=1/50$ ,  $p<.008$ ). The mean informedness ratings were 5.55 in the Serious Introduction condition and 4.38 in the Humorous Introduction condition (1="not at all informed" and 7="extremely informed").

### DISCUSSION

The experiments in this chapter represent preliminary attempts to determine what conditions are necessary for humor to increase persuasion. Only one of the four experiments (Experiment I) found

TABLE 3  
 MEAN ATTITUDE AND BEHAVIORAL INTENTION SCORES:  
 EXPERIMENT IV

	Humorous Film	Serious Film	No Film	Control
Equal Appearing Intervals scale	7.27	7.32	7.45	7.27
Behavioral Intention Scale	8.22	9.00	8.02	8.81
<u>n</u>	18	18	17	18
Total	15.49	16.32	15.47	16.08

Note.--Higher numbers indicate more persuasion on a scale ranging from 1 to 11.

an indication that humor might increase the persuasiveness of a message. In this study the humorous author was probably perceived more positively than the serious one, since Ss indicated they would like to receive more articles by the humorous than the serious author. That verbal ability of Ss was not found to interact significantly with the humor factor suggests that it may not be an important factor in determining responses to humorous vs. serious messages. If persons whose abilities differ more extremely than those in this study are used, the verbal ability factor might prove more important. Also, if humor which is more complex or subtle than that used in this study is employed, the verbal ability of Ss might be a more important determinant of responses to humorous vs. serious message.

The conditions necessary for testing whether credibility was an important interacting factor had not been created in Experiment II. Both the credibility and the humor manipulations were inadequate. This study did suggest that the subtle form of humor used, satire, was not understood as well as the straight-forward version. This problem with comprehension of humorous messages was found again in an experiment in the next chapter.

In Experiment III the humor manipulation was again weak. The cartoon was rated by 12 Ss on a 10-point scale ranging from 1="not at all funny" to 10="very funny." The mean rating was 3.25, indicating that the cartoon was only moderately funny at best. Furthermore, the effect of the cartoon was confounded with the effect of adding any picture at all.



The message used in Experiment IV was found to be nonpersuasive. Thus, the ability to test attitude hypotheses was greatly reduced. The ratings of the source's "informedness" indicated that the humorous source was perceived as more negative than the serious source. This is opposite from that found in Experiment I. The type of humor used is likely to determine what effects on source perceptions result.

Therefore, the experiments reported in this chapter do not provide sufficient information about when humorous messages are more effective than serious ones, nor whether or not humor adjacent to the messages affects responses to these messages. They did suggest the possibility that comprehension of humorous messages might be worse than comprehension of serious messages, as well as the likelihood of humor's affecting perceptions of the source.

In the next chapter two experiments are described which concentrated on one potentially important factor considered in interaction with the message appeal--initial opinions of Ss. Also, three studies considering the effects of humor adjacent to standard persuasive messages are reported. The experiments in Chapter III all used humor which had been pretested for funniness and had been rated as funny.

## Chapter 3

### LATER EXPERIMENTS

Politicians, speakers, and advertisers often use humor to enhance the effectiveness of their messages. In fact, a survey of television advertisements (Markiewicz, 1972) found that approximately 42% of them used some humor. However, a review of seven studies comparing humorous and serious persuasive messages (Gruner, 1972; Kennedy, 1972; Kilpela, 1961; Lull, 1940; McGown, 1967; Pokorny & Gruner, 1969; Youngman, 1966) indicated that humor was not found to increase persuasion.

The present research investigated two general issues with the area of the effects of humor on persuasion: (a) Under what conditions can a humorous persuasive message increase the amount of persuasion compared with a serious control message? That is, although prior researchers have found no increase in persuasion due to humorous messages, they may not have created the conditions appropriate for humor to increase persuasion. This research considered initial opinions of recipients as a factor hypothesized to interact significantly with message appeal (humorous vs. serious). (b) Can humor which is external to a persuasive message increase its persuasiveness? That is, if humor is not integrated into nor related to the persuasive message, can it still affect recipients' responses to that message?

An information-processing analysis of the persuasion process (Hovland, Janis & Kelley, 1953; McGuire, 1969) was applied to the study of the effects of humor on attitude change. Since captive audiences (laboratory Ss) were used in these experiments, attention was assumed to be constant. Comprehension of, yielding to, and retention of persuasive arguments were measured when these stages were considered to be variable.

EXPERIMENT I: EFFECTS OF INITIAL OPINION ON RESPONSES  
TO HUMOROUS VERSUS SERIOUS PERSUASIVE MESSAGES

Two series of studies suggest that initial opinions of Ss might be important in determining when humorous vs. serious messages are more persuasive. The first series deals with the effects of distraction on persuasion (e.g., Haaland & Venkatesan, 1968; Osterhouse & Brock, 1970; Zimbardo, Snyder, Thomas, Gold, & Gurwitz, 1970). These studies suggest that distractions reduce the counterargumentation of Ss and therefore increase persuasion. Subjects who are opposed to the message position would be expected to counterargue more than those who are neutral or in favor. Thus distractions would be most effective with those initially opposed to the message. If humor functions as a distractor, the following predictions are suggested: Subjects initially opposed to the message position are more persuaded by a humorous than a serious message. Those initially neutral or in favor of the position are approximately equally persuaded by either a humorous or serious message.

The second series of studies (Middleton, 1959; Priest, 1966; Wolf, Smith & Murray, 1934; La Fave, 1961, 1967; Gutman & Priest, 1969) found that people tend to laugh more at those with whom they do not sympathize or identify than at members of their own reference group. That is, Ss' own attitudes towards the target of the joke influenced their perceptions of the humorousness of the joke. When the humor incorporated into a message directly supports the message position, those who are initially opposed to that position might not be amused by the humor, and might react against the persuasive attempt as a whole. Thus the predictions suggested are: Those initially opposed to a position are less persuaded by a humorous than a serious message. Those initially neutral or in favor of a position respond more positively to a humorous than to a serious message advocating that position. These predictions are opposite to those suggested by the distraction studies.

#### Method

Initial opinions were manipulated experimentally in order to avoid confounding other S variables with initial opinion, and to minimize regression artifacts (see Insko, 1967). Role-playing assignments were used to manipulate initial opinions. Greenwald (1969) found that Ss who believed they would have to write essays supporting assigned roles changed their attitudes to be more consistent with these roles. This change occurred even though no actual writing was required.

A 3 X 3 after-only factorial design was used. Three levels of initial opinion set were created by assigning Ss to write in favor of, opposed to, or on a different topic from the communications' position. One-third of each of these groups received a humorous message, one-third received a serious message, and one-third received no message.

Subjects. One hundred twenty-eight students in Introductory Psychology classes at Ohio State University participated in the experiment as part of their course requirement.

Procedure. The study was allegedly concerned with expository writing skills. After receiving their role-playing assignments Ss read an "example" essay arguing that campus police should continue to carry guns. Control Ss received role-playing assignments but read no message. The "example" was either the humorous or serious persuasive message. All Ss were told that before they began writing, they must answer several questions about the example.

The humorous and serious messages were similar in arguments, order of arguments, summary paragraphs in the middle and at the end of the essay, approximate length (400 words), and format (where quotations were used in one, they were also used in the other). The humorous essay used mainly sarcasm, irony, and satire. It had been pretested for funniness ( $n=23$ ) and the mean rating on a 7-point semantic differential-type scale (1="not at all funny," 7="extremely funny") was 4.8.

All Ss completed attitude measures on whether campus police should carry guns. These included a thought-listing measure (Cullen, 1968) and three 7-point Likert-type items. They also completed 7-point semantic differential-type measures of how important the topic is; rated the essay on how interesting, humorous, entertaining, and well-written it was; and rated the author's trustworthiness. Subjects in the no-message control groups received role-playing assignments and completed attitude measures only. After all dependent measures were completed, Ss rated each of the thoughts they had listed as to the degree of its agreement with the view that campus police should continue to carry guns, on a scale from +3= strongly agree to -3= strongly disagree.

Comprehension study. In a partial replication of this experiment, a comprehension test was given. Thirty-eight Ss received one of the role assignments, read the humorous or serious "example" essay, and completed the three Likert-type attitude items and a comprehension test. The comprehension test required Ss to choose from 14 statements, which were the arguments mentioned in the essay. Eight of these items had been mentioned. Total scores for each S were computed by adding 1 point for every item correctly chosen and subtracting 1 point for every incorrect item chosen.

### Results

The humorous message was rated as significantly funnier than the serious message ( $F=40.24$ ,  $df=1/80$ ,  $p<.01$ ), indicating that the humor manipulation was adequate.

Since scores on the Likert-type items were highly positively intercorrelated, they were combined into a total attitude score for each S. A 3 X 3 analysis of variance on these scores indicated that the message effect was significant at the  $p < .01$  level ( $F = 4.77$ ,  $df = 2/119$ ). Table 1 contains the mean attitude scores on the Likert-type items. The contrast between the humorous and serious message

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conditions was significant ( $F = 6.02$ ,  $df = 1/119$ ,  $p < .01$ ) indicating that the serious message led to more persuasion than the humorous message.

Ratings of the listed-thoughts were averaged to obtain an additional opinion score for each S. A 3 X 3 analysis of variance on these scores yielded a significant effect for the initial opinion factor ( $F = 6.59$ ,  $df = 2/119$ ,  $p < .002$ ) in the expected direction. When Ss who did not read messages were excluded from the analysis, the message effect was significant on this measure ( $F = 5.72$ ,  $df = 1/80$ ,  $p < .02$ ) again indicating greater persuasion following the serious message than the humorous one. Table 2 shows the mean attitude scores on the listed-thoughts measure.

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Analyses of the semantic differential-type ratings indicated one significant effect: The serious author was rated as more trustworthy than the humorous author ( $F = 6.64$ ,  $df = 1/80$ ,  $p < .01$ ).

Table 1

Experiment I: Mean Attitude Scores on Likert-Type Measure

Message	Initial Opinion Assignment			Unweighted Means
	Favoring	Neither	Opposing	
Humorous <u>n</u>	13.08 13	14.53 15	10.87 15	12.82
No Message <u>n</u>	12.46 13	10.60 15	13.21 14	12.09
Serious <u>n</u>	16.29 14	14.86 14	15.40 15	15.51
Unweighted Means	13.94	13.33	13.16	

Note: -- Higher numbers indicate more persuasion on a scale ranging from 3 to 21.



Table 2

Experiment I: Mean Attitude Scores on Listed-Thoughts Measure

Message	Initial Opinion Assignment			Unweighted Means
	Favoring	Neither	Opposing	
Humorous <u>n</u>	3.52 13	3.58 15	4.49 16	3.86
No Message <u>n</u>	2.90 13	3.92 15	3.97 14	3.59
Serious <u>n</u>	2.17 14	2.82 14	4.25 14	3.08
Unweighted Means	2.86	3.44	4.23	

Note: -- Lower numbers indicate more persuasion on a scale ranging from 1 to 7.

Mean ratings on the 7-point scale (7="extremely trustworthy") were 3.81 for the humorous author and 4.69 for the serious author.

A 2 X 3 (message appeal by initial opinion) analysis of variance was performed on responses by those in the comprehension partial replication of the study. Those reading the serious message performed significantly better on the comprehension test than those reading the humorous message ( $F=13.71$ ,  $df=1/32$ ,  $p<.001$ ). When the attitude scores of these Ss were combined with those of others who had read messages, the analysis of variance yielded a significant message appeal effect ( $F=5.00$ ,  $df=1/118$ ,  $p<.02$ ) in the same direction as before.

### Discussion

The most important finding in this experiment was that the humorous message led to less persuasion than the serious message. Two stages of the information-processing sequence were likely to have contributed to this result; the comprehension stage and the acceptance stage. Poorer comprehension by humorous message readers could have reduced the persuasive impact of this message. Also, yielding to the message might have been reduced due to readers' perceptions of the humorous source as less trustworthy than the serious one, or due to direct effects of the humor on yielding. Finally, message characteristics that were confounded with the humor might be responsible for these results. Since no significant interaction effect on attitudes was found, neither hypothesis was supported.

EXPERIMENT II: EFFECTS OF INITIAL OPINION ON RESPONSES  
TO HUMOROUS VERSUS SERIOUS FILMS

In the previous experiment serious message recipients understood the message better than did humorous message recipients. Humor's effects on the acceptance stage of the persuasion process was of major interest. Thus, this experiment used a situation in which comprehension was virtually eliminated as a variable intervening factor in the persuasion process. Short, simple persuasive messages were used. Attention, as noted before, was assumed constant. Therefore, any effects of humor were most likely to occur in the acceptance stage.

Method

The initial opinions of Ss were not manipulated in this study. Instead, pretest scores of initial opinions were used to categorize Ss on the initial opinion factor.

Pretesting film stimuli. Twelve short (about 60 seconds) public service "spot" announcements used earlier on television were pretested using 48 introductory psychology students. After each film was shown, Ss wrote what were the major ideas contained in the message of the film. They rated the film on 7-point semantic differential-type scales on interest, funniness, cleverness, and believableness. Also, they indicated how the film affected their moods on four 7-point self-rating scales concerning happiness, sadness, fear, and anger.

On the basis of these pretests, six films (two on each of three topics) were selected to fulfill two major criteria: (a) One film on each topic was rated as humorous and the other as serious; (b) The humorous and serious films on each topic were as similar as possible on other ratings and arguments, within the limitations of the films available. The films chosen were all 60 seconds in length, in sound, and in color. Subjects had indicated that they understood the main argument in each of these films.

Subjects. Thirty-six students in two Business Administration courses at Ohio State University participated in the experiment as part of a course requirement.

Pretest. Initial opinions were measured as part of a larger questionnaire administered by the instructor of the class. Three self-rating scales on each of two topics, and two on a third topic were surrounded by five filler opinion items. Inspection of responses on the initial opinion questions indicated that only on one issue, safetybelt usage, were Ss distributed along the attitude continuum well enough to use initial opinions as a factor. Thus this topic only was used to test the initial opinion hypotheses.

Design. A 2 X 2 factorial design with message (humorous vs. serious film) and initial opinion (in favor or neutral vs. opposed) was used.

Procedure. The experiment was run two days after the pretest for one class, and five days after for the other class. Subjects were matched on the basis of their initial opinion responses

and assigned to conditions. Groups of approximately ten Ss each were run at intervals of 15 to 20 minutes during the usual class period.

Subjects were told that their help was needed to evaluate some films. They were shown either a humorous or a serious film on safetybelts. They then completed two 7-point Likert-type attitude measures on safetybelt usage and a behavioroid measure asking "How much money would you willingly donate to research concerning safetybelts?" Subjects also responded to four 7-point semantic differential-type questions concerning how trustworthy the source of the film was, how funny and interesting the film was, and how important the producers of the film consider the issue.

### Results

The humorous film was rated as funnier ( $\bar{X}=3.4$ , 7="extremely funny", 1="not at all funny") than the serious film ( $\bar{X}=1.95$ ) at  $p<.004$  ( $F=9.81$ ,  $df=1/32$ ). Those who had indicated being in favor or opposed to using safetybelts were classified as such. Four Ss indicated being neutral and these were included with those in favor for the 2 X 2 (message by initial opinion) analysis. On the behavioroid measure, Ss did not all respond with a specific amount of money. Therefore, responses were weighted as 0, if they had indicated they would give nothing, and 1 if they had indicated they would give something.

The three attitude measures did not correlate highly with each other, and were therefore not combined into a total score for each S. Instead, a multivariate analysis of variance was performed on the three attitude dependent measures. Subjects initially in favor (or neutral to) of the position advocated responded more positively than those opposed on the attitude measures ( $F=13.73$ ,  $df=3/30$ ,  $p<.001$ ). as would be expected by the initial opinion categorization. The multivariate  $F$  for the message effect was not significant for the attitude measures ( $F=.30$ ,  $df=3/30$ ). The interaction of message and initial opinion factors was found to be significant at  $p<.05$  ( $F=2.95$ ,  $df=3/30$ ). This was mainly due to responses to the second Likert-type scale which indicated that there was more persuasion for those initially in favor (or neutral) as a result of the serious message, but more persuasion after the humorous message for the initially opposed ( $F=3.73$ ,  $df=1/32$ ,  $p<.06$ ). The other two measures were not significant ( $F=.08$ ,  $F=2.59$ ,  $df=1/32$ ) for this effect. Table 3 shows the mean

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attitude scores. The source of the humorous film was rated as more trustworthy ( $\bar{X}=4.49$ , 7="extremely trustworthy") than the serious source ( $\bar{X}=3.44$ ) at  $p<.04$  ( $F=4.37$ ,  $df=1/32$ ). The humorous film was also rated as more interesting than the serious film ( $F=10.97$ ,  $df=1/32$ ,  $p<.002$ ).

Table 3

Mean Attitude Scores on Two Likert-Type Items and Behavioroid

Measure: Safety Belt Issue, Experiment II

Message	Initial Opinion								
	Favorable or Neutral			Opposed			Unweighted Means		
	Likert 1	Likert 2	Behav.	Likert 1	Likert 2	Behav.	Likert 1	Likert 2	Behav.
Humorous <u>n</u>	2.66 <sup>a</sup> 9	4.00 <sup>a</sup> 9	.77 <sup>b</sup> 9	4.28 7	5.57 7	.14 7	3.47	4.78	.45
Serious <u>n</u>	2.33 9	3.11 9	.66 9	4.18 11	6.36 11	.54 11	3.25	4.73	.62
Unweighted Means	2.49	3.55	.71	4.23	5.96	.34			

<sup>a</sup>Lower numbers indicate more persuasion on a 7-point scale.

<sup>b</sup>Higher numbers indicate more persuasion on a scale ranging from 0 to 1.

### Discussion

The distraction interpretation of humor was supported by the significant interaction found on the attitude measures. However, a more adequate test of this interpretation must include a measure of Ss' counterargumentation.

The finding in Experiment I concerning ratings of source trustworthiness was not replicated in this experiment. In fact, the opposite was found: The humorous source was rated as more trustworthy than the serious source. This difference might be due to the specific type of humor employed.

One problem common to both the first and second experiment is the difficulty in generating humorous and serious messages equivalent on all other dimensions. Humor integrated into a persuasive message might affect the interpretation of the arguments contained. In the next series of studies, this problem was avoided by using humor external to the persuasive messages.

#### EXPERIMENT III: EFFECTS OF HUMOROUS VERSUS SERIOUS CONTEXT ON RESPONSES TO PERSUASIVE MESSAGES

In this series of studies, Ss heard persuasive messages embedded in a humorous or a serious context. The hypothesis tested was that the context would affect Ss' moods and this in turn their responses to the persuasive message. That is, Ss put in a "happy" mood by listening to humorous anecdotes would be less likely to resist being persuaded, and less motivated to produce cognitive responses in opposition to the persuasive message. A situation



analogous to this procedure is advertisements (persuasive messages) embedded in either a comedy program or a serious drama.

#### Experiment IIIA

Method. Thirty-two Ss were recruited through advertisements in the Ohio State University newspaper. They were paid \$1.50 for their participation in the study. Humorous Context and Serious Context formed the conditions in the experiment. Five short persuasive messages were chosen from a pool of 40 which had been pretested for persuasiveness. These had been found to change attitudes significantly in the directions advocated. These messages were incorporated into one of two contexts--a humorous one or a serious one. Tape-recorded sketches by Bill Cosby, a comedian, were used for the humorous context. Recorded speeches by Martin Luther King, Junior were used for the serious context. The humorous sketches had been pretested for funniness, and the mean rating was 7.57 on a 10-point scale with 1="not at all funny" and 10="extremely funny."

The purpose of the experiment was allegedly to choose which messages were most effective. Three to six minute segments of background context were alternated with the persuasive messages. All Ss received the same persuasive messages recorded from a master tape. Following each of the five segments of background context, Ss rated it on a 10-point semantic differential-type scale ranging from 1="extremely serious" to 10="extremely funny." They next rated their moods on a 10-point semantic differential-type

scale (1="extremely unhappy" and 10="extremely happy"). After each of the five persuasive messages, Ss heard an opinion statement read twice and then indicated their agreement with it on a 15-point Likert-type scale ranging from 1="definitely disagree" to 15="definitely agree." Finally, after the recording was heard, Ss completed five 10-point semantic differential-type scales on how interesting the messages were; how likeable, trustworthy, and well-informed the speaker of the messages was; and how irritating were the interruptions due to alterations of the persuasive messages with the background recordings.

Results. Total scores for each S on the humor, mood, and attitude ratings were formed by averaging the five ratings taken after each message or context segment for each measure. Subjects in the Humorous Context condition rated the context as significantly funnier ( $\bar{X}=7.85$ , 1="not at all funny" and 10="extremely funny") than did those in the Serious Context condition ( $\bar{X}=1.76$ ). This difference was significant at the  $p<.001$  level ( $F=244.70$ ,  $df=1/30$ ). Subjects in the Humorous Context condition also rated themselves as significantly happier ( $\bar{X}=6.96$ , 1="extremely unhappy" and 10="extremely happy") than did those in the serious context condition ( $\bar{X}=5.11$ ). This difference was also significant at the  $p<.001$  level. ( $F=15.84$ ,  $df=1/30$ ). The two conditions did not differ significantly on the attitude measure ( $F=.40$ ,  $df=1/30$ ). Table 4 contains mean attitude ratings.

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Table 4  
 Mean Total Opinion Scores: Experiment III

Replication	Context		
	Humorous	Serious	Control
A <u>n</u>	40.13 15	42.00 17	
B <u>n</u>	32.68 19	33.36 25	44.29 17
C <u>n</u>	42.80 46	41.85 47	
Unweighted Means	38.53	39.07	

Note: -- Lower numbers indicate more persuasion on a scale ranging from 5 to 50.

Experiment IIIB

Method. Subjects were 61 students in introductory Psychology classes at Ohio State University who participated as fulfillment of a course requirement. The design was a one-way factorial with Humorous Context, Serious Context, and Control conditions. The procedure and dependent measures used were similar to those in Experiment IIIA with the following differences: (a) Since the previous checks on the humor and mood manipulations showed them to be adequate, Ss in this replication did not complete the mood and humor checks. Thus no interruptions for completing these measures occurred between the background context and the persuasive message. (b) The selection of five persuasive messages used in this replication was different from that used in the previous study. (c) After hearing each message, Ss completed a measure of overall acceptance of the message. After each message Ss were told to "Indicate the extent of your agreement with the arguments and conclusions of this message." They selected a number on a 15-point scale with 1="definitely disagree" and 15="definitely agree." This measure served as an index of yielding or evaluative cognitive responses to the message. (d) Control condition Ss heard only the opinion statements and responded to these on the 15-point scale. (e) At the end of the experiment Ss rated the background recording (context) on a 10-point semantic differential-type scale measuring funniness.

Results. Subjects who heard the humorous background recording rated it as significantly funnier than did those hearing the serious context ( $F=115.51$ ,  $df=1/42$ ,  $p<.001$ ). A one-way analysis of variance was performed on the total opinion measure, and was found to be significant ( $F=10.83$ ,  $df=2/58$ ,  $p<.001$ ). The contrast for the Humorous Context vs. Serious Context conditions was nonsignificant ( $F=.06$ ,  $df=1/58$ ). The contrast for the Humorous Context and Serious Context conditions vs. the Control condition was significant in the expected direction ( $F=21.60$ ,  $df=1/58$ ,  $p<.001$ ). The evaluative cognitive response measures for those in the Humorous Context and Serious Context conditions did not differ significantly ( $F=.03$ ). Tables 4 and 5 contain the mean opinion and mean evaluative cognitive response measures.

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### Experiment IIIC

Method. Ninety-three Ss, students in introductory Psychology classes at Ohio State University, participated in this experiment as part of their course requirement in the summer of 1972. The procedure used in the previous replication was used again with these modifications: (a) Subjects ability to counterargue against the messages within the context was varied prior to their receipt of these messages. Some Ss received information containing counterarguments to the messages (Counterargument conditions), while others received information on other topics (No Counterargument conditions).

Table 5

Mean Total Evaluative Cognitive Responses: Experiment IIIB, IIIC

Replication	Context	
	Humorous	Serious
B <u>n</u>	51.47 19	50.96 25
C <u>n</u>	39.71 46	43.63 47
Unweighted Means	45.59	47.29

Note: -- Higher numbers indicate more persuasion on a scale ranging from 5 to 50.

(b) The set of messages embedded in the contexts was different from that used previously.

A 2 X 2 (Context by Counterargument) factorial design was used. Subjects were told that they would be asked to evaluate five messages presented consecutively (Counterargument vs. No Counterargument variations) and five messages embedded in a background program (Context variations). Half of the Ss in each counterargument condition were in the Humorous Context condition and half in the Serious Context condition. All Ss indicated their evaluative cognitive responses to the information messages. The remainder of the procedure was identical to that of Experiment IIIB.

Results. A significant effect of context was found on the total evaluative response measure for the embedded persuasive messages ( $F=4.38$ ,  $df=1/89$ ,  $p<.039$ ). More agreement with the messages occurred in the Serious Context conditions than in the Humorous Context conditions. Those in the Counterargument conditions disagreed with the messages on the cognitive response measure significantly more than those in the No Counterargument conditions ( $F=19.60$ ,  $df=1/89$ ,  $p<.001$ ). Similarly, those in the Counterargument conditions disagreed with the messages on the opinion statements significantly more than did those in the No Counterargument conditions ( $F=16.20$ ,  $df=1/89$ ,  $p<.001$ ). No significant difference between Context conditions was found on the total opinion measures.

No significant interaction effect was found on either measure of attitudes. ( $F's = .42, 1.09$ ). Tables 4 and 5 contain the means on these attitude measures.

Those receiving counterarguments rated the source as significantly less trustworthy ( $F=7.94, df=1/89, p<.006$ ) and less well-informed ( $F=4.23, df=1/89, p<.042$ ). Those in the Serious Context conditions were more irritated by the interruptions due to context-message alterations than those in the Humorous Context conditions. The interaction was also significant indicating that those in the Counterargument-Humorous Context conditions were less irritated than those in the other conditions, which were about equal ( $F=6.47, df=1/89, p<.013$ ).

#### Overall analyses for context experiments

An overall analysis of the 3 experiments described should indicate more about the effects of context variations than would any one study. Analyses of variance (2 X 3, context by replication) were performed on the total opinion measures of attitude, and on ratings of interest of the messages, likeableness, trustworthiness, and informedness of the source of these messages, and how irritating were interruptions. A total of 169 Ss were included in these analyses ( $n=80$  for humorous context conditions;  $n=89$  for serious context conditions).

No significant effects for the context factor were found on any of these dependent measures. A significant replication factor effect was found on the total opinion measure ( $F=12.62, df=2.163,$



$p < .001$ ). No significant interaction effects were found. The replication effect observed can be explained as due to the three studies using different messages, varying in persuasiveness, or in Ss' initial agreement.

Failure to detect a significant difference in attitude comparing humorous and serious conditions should not be attributed to the weakness of the statistical test used. The standard deviation for the mean difference on the mean opinion scores was .317 allowing a difference of .625 on the 15-point scale to have been detected as significant ( $p < .05$ ). Therefore, one should conclude that any effects due to using humorous vs. serious contexts are at most very small.

When the two replications measuring agreement with the arguments and conclusions of messages were analyzed together, the context effect approached significance ( $F = 3.48$ ,  $df = 1/33$ ,  $p < .064$ ), indicating less positive reactions in the Humorous Context conditions than in the Serious Context conditions.

### Discussion

Different stages of the attention-comprehension acceptance sequence are likely to be important for studies incorporating humor into the message compared with those using humor adjacent to the message. When integrated into the persuasive message, humor might have affected the comprehension stage in addition to acceptance. The humor interfered with message comprehension in Experiment I, where a complex message was used and the humor was

subtle. The humor might have affected acceptance of the message by (a) acting as a distractor (Experiment II) (b) affecting perceptions of the source (Experiments I, II), and/or (c) affecting Ss' moods and thus their responses in general.

When the humor was external to the persuasive messages, a number of the mechanisms mentioned above could be eliminated as explanations of observed effects. Since the context was not attributed to the source of the persuasive messages, the humor should have had no direct effects on perceptions of the source (although mood changes might have mediated some variations in source perceptions). Since the humor was not incorporated into the messages, comprehension should not have been affected directly either. Finally, since the humor and message were distinct from one another, the distracting effects of the humor should have been minimized. The major explanation remaining was that humor might have affected Ss' moods and this in turn their responses to the persuasive messages.

Those receiving humor, however, did not respond more positively to the persuasive messages than other Ss. In fact, on the evaluation cognitive response measure of acceptance of the message, the difference (marginally significant) was in the opposite direction: Serious Context Ss accepted the message more than the Humorous Context persons.

None of the experiments reported here allowed the attention stage to vary appreciably, since presumably the experimental demands

of the task compelled Ss to pay attention to the messages. Some advertisers (e.g., Leavitt, 1970, Hoppe, 1969) suggest that the advantage of humorous advertisements lies in their capacity to capture attention. The methods used in this research did not permit testing this hypothesis.

Thus, humor either incorporated into a persuasive message or adjacent to standard persuasive messages was not found to increase persuasion. A humorous appeal was found to be more effective than a serious appeal for Ss initially opposed to the message position. In two experiments (Experiment I, Experiment IIIC), humor was found to decrease acceptance of the persuasive messages. Therefore, when attention is high, the use of humor does not appear to increase persuasion. It may decrease acceptance by reducing comprehension, affecting perceptions of source trustworthiness, or reducing yielding itself.

Appendix A

Materials for Experiment I, Chapter 2

**TELL IT LIKE IT SHOULD BE--SCHOOL IN SUMMER**

No one ever stops fish from going to school during the summer. Students today should demand their rights. They should have a sit-in demonstrating their protest against no school during the summer.

The reasons for closing school during the summer are out-dated. Children used to be excused from school during the summer months so that they could help harvest the crops on the farm. Today, most students spend their summers harvesting baseballs, or sunrays, or tie-dyed hot pants, or "the blahs". Sometimes they help their families, but usually they would not need the entire summer to cut the lawn a few times or to water the tomato plant, even if it is a large plant. Besides, housework or baby-sitting can be worse than geography.

During the summer it's tough to get around. For example, before your mother will drive you to a friend's house, you might have to do some of these things: wash the grimy kitchen floor four times, talk your three year old sister into watching "Sesame Street" at the neighbors', and worst of all, move your frisbee, your bullet belts, and other favorite objects from their usual spots on the floor and bed. If school were in session you would be able to groove with your friends more easily.

Summer would be a good time to study those things which are common during that season--like insects? If students would continue to make insect collections during the summer, they would lessen the chance that the insects will conquer the earth. "Bug the bug!", "Collect insect!" "Step on mosqui-toes!" could be the student battle cries. They could make studies of plants and animals in their natural homes, since they could take many more field trips (not drugs). In fact they could even plant seeds as part of "Plant Parenthood."

Teachers could hold classes outside when the weather is good, and it's

good more often in the summer. They could use objects outdoors, such as caterpillars, cars, and cobs, as an aid to their teaching. Instead of counting their fingers and toes when adding, students might count leaves or blades of grass. It's easier to discover scientific facts outdoors than indoors. Do you think Newton could have discovered the law of gravity if he had to wait for an apple to drop on his head while sitting inside his classroom during the winter? He was probably in a class held outside when he was hit with the apple.

School should be held all year, including in the summer, for all these reasons. Children are not needed to help on the farm, since most of them don't live on farms. Students could get together more easily than when there is no school in session. Students could study things common in summer. Teachers could use things that are outdoors to help in teaching.

Summer is one season of the year missing one very important thing-- school in not in session. Students today should do what they can to have school during the entire year including the summer.

The reasons for closing school during the summer in the past are no longer good ones today. Children used to be excused from school during the summer months so that they could help harvest the crops on the farm. Today few students live on farms so that they need not harvest crops in the summer. They really have no special chores they must do in the summer which would cause them not to have time for school. Often they become bored since they do not have much to do during the long summer days.

During the summer because of transportation problems it's often hard to get together with friends who live far away. For example, you might have to do various chores around the house before you could go out with your friends. Sometimes these chores are very unpleasant. If school were in session you would be able to be with your friends more easily.

Summer would be a good time to study those things which are common during that season. For example, students could make large insect collections, since they would have more time to catch insects. They could take many more field trips during the summer than during other months, and could study plants and animals in their natural homes. They could even help contribute to conservation by planting seeds.

Teachers could hold classes outside when the weather is good, and it's good more often in the summer. They could use objects outdoors as an aid to their teaching. Language teachers could point to things outside

and teach students the words in the foreign language. Teachers could demonstrate scientific facts more easily outside than inside. For example, the law of gravity could be shown by watching an object fall from a tree. Newton is said to have discovered this law when an apple fell from a tree.

School should be held all year, including in the summer, for all these reasons. Children are not needed to help on the farm, since most of them don't live on farms. Students could get together more easily than when there is no school in session. Students could study things common in summer. Teachers could use things that are outdoors to help in teaching.



Appendix B  
Materials for Experiment II, Chapter 2

The Education Department is interested in how students not majoring in English or literature evaluate various articles. For this reason, we have chosen a statistics class, and would appreciate your cooperation. All of you, regardless of your major, should read and evaluate these articles, and respond to the questions asked.

You will not all receive the same articles to read. Please read only your own. Do not discuss the articles with any other class members. Please proceed through the booklet in order. Read each page carefully and answer the questions without looking back at previous pages. The class's results will be presented to you at a later time and more discussion will be possible then. Are there any questions? Please write your names on each booklet you receive. Thank you for your help.

## GUN SUPPORTERS ON THE DEFENSIVE

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Lobbyists for the National Rifle Association are becoming very concerned about the possibility of stronger gun control legislation. The National Rifle Association spends a great deal of money on lobbying in order to prevent such laws from being passed. Lobbyists put a large amount of pressure on members of Congress in order to convince them against passing antigun legislation.

The arguments which this association and its supporters use in defense of their position include some of the following. They insist that forcing people to register their guns would not decrease the number of crimes committed. If criminals, adolescents, or disturbed people wished to obtain guns, they would do so anyway. Thus, these criminals would not register their guns, and this legislation would cause no benefit to accrue to police in their attempts to prevent and solve crimes. Therefore, supporters of the National Rifle Association say, the only result would be that the sincere hunter and marksman would be greatly inconvenienced. Certainly, one would think that inconveniencing some sportsmen is not a very significant problem.

Members of the National Rifle Association oppose any legislation which would forbid the sale of long guns and shotguns through the mail. The reasons they give for this position are comparable to those they gave to support their anti-registering-guns position. Hunters would be forced to go to stores to purchase their guns, rather than simply ordering them from a catalogue.

That is, hunters would be forced to spend more time on the purchasing of equipment. This, of course, would reduce the time left for actually enjoying the sport of hunting or marksmanship. Although this might be a minor irritation for some people, it would probably not

greatly disturb the majority of sportsmen. Certainly, these inconveniences seem hardly worth the great protest which the National Rifle Association is raising.

Finally, those who oppose more gun-control legislation are very much against the idea that a list would be made of all those who own guns. The possibility that a file would be in existence which would designate all gun-owners makes these individuals very uneasy. What they fear is that this list of all the gun-owners in the United States would be obtained by some subversive elements in the country. These undesirable people could use this knowledge, they suggest, to take over the country. This paranoid concern with the possibility of an undesirable group exerting their power over the majority solely by means of the knowledge of who owns guns is certainly ridiculous.

In spite of the lack of really substantial arguments in their favor, the National Rifle Association continues to spend an exorbitant amount of money on lobbying in Congress. In the past, mail sent to Congressmen was largely in support of the National Rifle Association. However, this trend has changed. Now the majority of the mail to Congress seems to be in favor of stronger gun control legislation.

Since the National Rifle Association is extremely well-financed, they continue to put pressure on members of Congress. This they do in spite of evidence that the great majority of the people appear to be in support of the new anti-gun legislation. Thus, lobbyists for the National Rifle Association continue to entertain Congressmen lavishly. Perhaps they believe that by spending a great deal of money on the members of Congress, they can compensate for the poor quality of the arguments they use to support their views against stronger gun control measures by the government of the United States of America.

Wallaby Cartridge, the president of the National Gun Lovers of America and Bugle Corps, was enraged when I saw him in a restaurant one day spoon-feeding an Old-Fashioned into the mouth of a U.S. Senator.

"Americans are behaving like children," Wallaby said, "parroting nonsense, and trying to bring pressure on Congress to pass antigun legislation."

"But that's lobbying," I said in a shocked voice.

"You're damn right it's lobbying, and the National Gun Lovers of America through its lobby is officially protesting. There's a conspiracy going on to take guns away from the American people, and we won't stand for it--not after all the money and time we've spent preventing it. Senator, can I order you some caviar?"

The Senator nodded his head.

"What I don't understand, Wallaby, is why the American people just won't take your word that guns don't kill people, people kill people."

"Because the American people are being brainwashed. They think they can prevent crime and keep guns out of the hands of criminals and adolescents and disturbed people by making Americans register their guns. But at the same time they don't realize how much inconvenience they would be causing the sincere hunter and marksman."

"Nobody wants to inconvenience people who hunt," I agreed.

"How about a nice steak, Senator?" Wallaby said.

He then continued. "Do you know one of the things they want to do? They want to pass a law forbidding the sale of long guns and shotguns through

the mail. Do you realize what this would do to hunters? They'd have to go down to a store and buy the gun over the counter and give their names to the sales clerk."

"But that's outrageous. Hunters shouldn't be forced to go to a store to buy their guns. They've got too much to do, getting up at three in the morning and sitting in a duck blind for four hours in the mud, to find time to go to a store."

"I'm glad you understand it," Wallaby said. "But there's more to it than that. They want to take our guns away from us."

"Who does?"

"They do," Wallaby said ominously.

"Then it's a conspiracy," I cried.

"Of course it's a conspiracy," Wallaby said. "Who do you think is behind all those letters being sent to Congressmen and Senators this week?"

"The American people?"

"You fool. The conspiracy's behind it. They know if they can get a list of the people in the United States who own guns, They'll be able to take over."

"And the only thing standing between they and us is you."

I thought Wallaby was going to burst into tears.

"Everything was going so well. We had Congress in our pocket. Our mail campaign for guns outnumbered the antigun mail by six to none. We had the thing in the bag. But now the mail is running against us, and everyone's blaming me. I've been a good lobbyist, a loyal lobbyist, a free-spending lobbyist. If they pass a strong antigun law, who will have me?"

My heart was breaking. "Maybe people will stop writing letters against guns," I said hopefully. Wallaby shook his head. "Then why are you entertaining this Senator?" I asked. "I can't help it. It's the only thing I know how to do." Wallaby shoved a cigar in the Senator's mouth and started to pour some brandy down his throat.

Please list any thoughts you have which are pertinent to the issue of gun control legislation. These thoughts may consist of

a) information favorable to any viewpoint b) personal values of yours that are favorable to one or the other viewpoint c) features of either viewpoint that you perceive as good d) features of either viewpoint that you perceive as bad or harmful and e) any other thoughts you feel to be pertinent.

In writing down these thoughts, please separate them into individual ideas. An "individual idea" is one that expresses only a single fact, value, good or bad feature, or thought. After you have completed this, read the additional directions under the lines for your ideas.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

For each thought place a "-" next to it if it expresses a view against antigun legislation, a "0" if it is neutral, or a "+" if it is in favor of antigun legislation. Next, for thoughts you label positive or negative ("- or "+" ), place a "1", a "2" or a "3" next to it where these numbers represent the following: "1" indicates that the thought is slightly against or in favor, "2" indicates that it is moderately against or in favor, and "3" that it is strongly against or on favor of antigun laws. For example, "+2" indicates moderatly in favor. Label all thoughts.

For each question please respond by putting a circle around the number which best represents your choice. Be certain to read carefully the labels on either end of the scales.

How serious an issue do you consider the topic of this article?

1	2	3	4	5	6	7
not at all serious						extremely serious

How entertaining was the article?

1	2	3	4	5	6	7
very entertaining						not at all entertaining

How informed about the issue do you believe the author to be?

1	2	3	4	5	6	7
very well- informed						very uninformed

How funny did you think this article?

1	2	3	4	5	6	7
not at all funny						very funny

How interesting was the article?

1	2	3	4	5	6	7
very interesting						very uninteresting

How biased do you consider the author?

1	2	3	4	5	6	7
very biased						very unbiased



How much do you agree or disagree with this statement: Stronger gun  
control legislation is needed in the U.S.?

1	2	3	4	5	6	7
disagree						agree
strongly						strongly

Please respond to the following questions concerning the preceding article.

1. What association was the author criticizing in this article?

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2. What was the author's attitude toward lobbying against antigun legislation? He was: a) slightly in favor b) strongly in favor c) neutral d) slightly opposed e) strongly opposed to lobbying against antigun legislation.

3. Which of the following measures did the author mention that those favoring stronger gun controls want? Please circle the letter of any of these which he mentioned.

- a) registration of guns
- b) no sale of revolvers through the mail
- c) police and military use of guns only
- d) no sale of shotguns through the mail
- e) government regulation of the sale of amunition

For the preceding question, please put an "X" next to the letter of any of these measures which you would support (regardless of whether or not the author mentioned it.)

4. Which of the following complaints of those opposed to antigun legislation did the author mention? (Circle the letter or letters.)

- a) Having a list of gun-owners would enable advertisers to annoy them.
- b) Having a list of gun-owners would facilitate an anti-American take-over.
- c) Registering guns would be an inconvenience.
- d) Registering guns is unconstitutional.
- e) Gun control measures would not decrease the number of crimes committed.

Appendix C

Materials for Experiment III, Chapter 2

P. O. Box 3032  
Columbus, Ohio  
43210

Dear Student,

Many people are concerned about pollution. Some of us think that using student fees to establish a recycling center for paper, glass, and metal on the Oval would help. Our committee is contacting people to get reactions to this idea. Your name was selected at random from the student directory.

A postcard is enclosed with space to indicate your opinion. Please fill it in and return it as soon as possible.

Concerned Students

Post Office Box 3032  
Columbus, Ohio  
43210

Dear Student,

Many people are concerned about pollution. Some of us think that using student fees to establish a recycling center for paper, glass, and metal on the Oval would help. Our committee is contacting people to get reactions to this idea. Your name was selected at random from the student directory.

We are polluting our environment with litter and trash at the same time that we are using up much needed natural resources; recycling helps solve both problems at once by turning useless waste into useable materials. Recycling centers are very successful on other campuses. They pay for themselves after the initial investment, and we need your support.

A postcard is enclosed with space to indicate your opinion. Please fill it in and return it as soon as possible.

Concerned Students



Appendix D  
Materials for Experiment IV, Chapter 2



- \_\_\_\_\_ Fines for not wearing safety belts should be on a per mile basis.
- \_\_\_\_\_ Wearing a safety belt causes no harm to its user.
- \_\_\_\_\_ Safety belts are not bad and sometimes help reduce injuries.
- \_\_\_\_\_ Safety belts can prevent passengers from hitting their heads on the dashboard.
- \_\_\_\_\_ Drivers do not benefit from wearing safety belts.
- \_\_\_\_\_ Money should be donated to organizations doing research on safety belts.
- \_\_\_\_\_ Safety belts sometimes reduce injuries from driving accidents.
- \_\_\_\_\_ People who wear safety belts are usually nervous.
- \_\_\_\_\_ Those who don't wear safety belts are careless in general.
- \_\_\_\_\_ Not wearing safety belts shows lack of consideration for those one loves.
- \_\_\_\_\_ Enforcing the law of wearing safety belts would be like other common safety practices.
- \_\_\_\_\_ Wearing safety belts should not be required by law.
- \_\_\_\_\_ Citizens should be taxed to pay for increased research on safety belts.
- \_\_\_\_\_ Safety belts restrain users.
- \_\_\_\_\_ Legally enforced wearing of safety belts is against the Bill of Rights.
- \_\_\_\_\_ Insurance companies should pay for injuries incurred while not wearing safety belts.
- \_\_\_\_\_ If wearing safety belts were required, drivers would acquire the habit of putting them on immediately.
- \_\_\_\_\_ The extra effort to obey the law of wearing safety belts would be repaid by fewer serious car accidents.
- \_\_\_\_\_ Insurance costs would be reduced if safety belts were required, since fewer serious accidents would occur.
- \_\_\_\_\_ The government should contribute funds for research on safety belts.
- \_\_\_\_\_ Safety belts are difficult to fasten.
- \_\_\_\_\_ Wearing safety belts should be required by law.



- \_\_\_\_\_ Enforced wearing of safety belts would reduce passengers' vulnerability to the driver's reckless operation.
- \_\_\_\_\_ Drivers would feel less responsible for the safety of their passengers who wore safety belts.
- \_\_\_\_\_ Policemen should give tickets to those who do not wear safety belts while in a moving car.
- \_\_\_\_\_ If worn as tight as necessary, safety belts hurt.
- \_\_\_\_\_ Research on safety belts reduce the efforts to increase the safety of the car itself.
- \_\_\_\_\_ Safety belts have been shown to save the lives of users.
- \_\_\_\_\_ Safety belts have little real benefit for city drivers.
- \_\_\_\_\_ Excuses for not wearing safety belts are not justified.
- \_\_\_\_\_ Some people believe safety belts reduce injuries in driving accidents.
- \_\_\_\_\_ Safety belts do not always reduce injuries from driving accidents.
- \_\_\_\_\_ Safety belts can reduce and can increase injuries in driving accidents.
- \_\_\_\_\_ Better methods of increasing driving safety exist than using safety belts.
- \_\_\_\_\_ If a car becomes overheated and a fire begins, safety belts reduce passenger's ability to escape.
- \_\_\_\_\_ If a passenger expects to stop shortly, he can brace himself and prevent injury.
- \_\_\_\_\_ Cars unequipped with safety belts should not be permitted on public roads.
- \_\_\_\_\_ The necessity of cars is a more important question than whether or not to use safety belts.
- \_\_\_\_\_ Only a fool would drive without his safety belt on.
- \_\_\_\_\_ Safety belts are most important for children to wear.
- \_\_\_\_\_ Safety belts are almost never really needed.
- \_\_\_\_\_ Driving safely is as important as wearing safety belts.
- \_\_\_\_\_ If safety belts are worn, one can drive 10 mph faster without increasing danger.

- Insurance companies should not pay for injuries incurred while not wearing safety belts.
- Safety belts should always be worn while driving in the city.
- Safety belts often fail to prevent injuries.
- Safety belts cramp their users.
- Safety belts should always be worn while driving on the highway.
- Safety belts can increase injuries suffered in an accident.
- Safety belts increase reckless driving.
- Little real evidence of the benefits of using safety belts exists.
- Whether or not safety belts are worn has no effect on the safety of passengers.
- Adding another law would increase driver's problems.
- Insurance companies would take advantage of a law requiring that safety belts be worn to avoid payment for accidents.
- Cars are now made with safety belts.
- Seatbelts can increase whiplash.
- Car manufacturers encourage installing safety belts in cars.
- The typical size of safety belts does not allow for larger-than-average persons.
- Every citizen should be required to donate \$5 per month for research on safety belts.
- Safety belts are fun to use.
- Safety belts give the false illusion of being modern.
- Safety belts neither help nor hurt.

Judge the following behaviors using the same scale of favorableness to unfavorableness as used before. That is, how favorable or unfavorable to this view would the following behaviors suggest the actor to be. Write the letter of the category next to each behavior.

- \_\_\_\_\_ Wrote to congressman to oppose legislation enforcing safety belt usage.
- \_\_\_\_\_ Sent a \$100 check to an organization trying to get a law passed requiring safety belt usage. (Assume a fixed income for the person in all of these statements.)
- \_\_\_\_\_ Participated in a demonstration opposing legislation requiring safety belt usage.
- \_\_\_\_\_ Forced all passengers in his car to fasten their safety belts.
- \_\_\_\_\_ Sent a \$10 check to an organization trying to get a law passed requiring safety belt usage.
- \_\_\_\_\_ Wrote to congressman to support legislation enforcing safety belt usage.
- \_\_\_\_\_ Participated in a demonstration supporting legislation requiring safety belt usage.
- \_\_\_\_\_ Sent a supportive letter to an organization supporting legal enforcement of safety belt usage.
- \_\_\_\_\_ Refused to purchase a car from an auto industry opposing enforced safety belt usage.
- \_\_\_\_\_ Sent a \$100 check to an organization trying to oppose laws requiring safety belt usage.
- \_\_\_\_\_ Did not respond to mail inquiries concerning his views about enforced safety belt usage.
- \_\_\_\_\_ Always wears his safety belt.
- \_\_\_\_\_ Sometimes wears his safety belt.
- \_\_\_\_\_ Never wears his safety belt.

Next to each statement below, place an A next to it if you agree with it, or a D if you disagree with it. Be certain to place either an A or a D next to each statement.

- Wearing a safety belt causes no harm to its user.
- Safety belts can prevent passengers from hitting their heads on the dashboard.
- Safety belts sometimes reduce injuries from driving accidents.
- The extra effort to obey the law of wearing safety belts would be repaid by fewer serious car accidents.
- Insurance costs would be reduced if safety belts were required, since fewer serious accidents would occur.
- The government should contribute funds for research on safety belts.
- Safety belts have been shown to save the lives of users.
- Safety belts have little real benefit for city drivers.
- Some people believe safety belts reduce injuries from driving accidents.
- Safety belts do not always reduce injuries from driving accidents.
- Better methods of increasing driving safety exist than using safety belts.
- Safety belts can reduce and can increase injuries in driving accidents.
- Safety belts are most important for children to wear.
- Safety belts are almost never really needed.
- Safety belts often fail to prevent injuries.
- Safety belts cramp their users.
- Safety belts increase reckless driving.
- Whether or not safety belts are worn has no effect on the safety of passengers.
- Adding another law would increase driver's problems.
- The typical size of safety belts does not allow for larger-than-average persons.

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For the following behaviors, place a check next to each one you would be willing to perform.

- Send a \$10 check to an organization trying to get a law passed requiring safety belt usage.
- Write to congressman to support legislation enforcing safety belt usage.
- Send a supportive letter to an organization supporting legal enforcement of safety belt usage.
- Send a \$100 check to an organization trying to oppose laws requiring safety belt usage.
- Never wear a safety belt.
- Not respond to mail inquiries concerning views about enforced safety belt usage.
- Sometimes wear a safety belt.
- Always wear a safety belt.

Appendix E  
Materials for Experiment I, Chapter 3

## EXPOSITORY WRITING STUDY

This study is concerned with an analysis of expository writing skills. Expository writing skill is the ability to present , forcefully, persuasively, and originally, a position on one side or another of an issue. Therefore, you will be asked to write on only one side of an issue.

You have been assigned, arbitrarily, to write in support of the view that campus police should not carry guns. That is, regardless of your actual beliefs on this topic, the essay you will write should argue in favor of campus police no longer carrying guns.

Before you begin to write your own essay, you are to read an example of an essay written on the issue of whether or not campus police should carry guns. Please read carefully, but as rapidly as possible without losing comprehension. You will be asked several questions about the essay. Please answer honestly. Your papers will not be associated with you personally. Do not write your names on the booklets.

This study is concerned with an analysis of expository writing skills. Expository writing skill is the ability to present, forcefully, persuasively and originally, a position on one side or another of an issue. Therefore, you will be asked to write on only one side of an issue.

You have been assigned, arbitrarily, to write in support of the view that attendance should be required in classes at OSU. That is, regardless of your actual beliefs on this topic, the essay you will write should argue in favor of mandatory attendance at classes.

Before you begin to write your own essay, you are to read an example of an essay written on another issue - whether or not campus police should carry guns. Please read carefully, but as rapidly as possible without losing comprehension. You will be asked several questions about the essay. Please answer honestly. Your papers will not be associated with you personally. Do not write your name on the booklets.

This study is concerned with an analysis of expository writing skills. Expository writing skill is the ability to present, forcefully, persuasively, and originally, a position on one side or another of an issue. Therefore, you will be asked to write on only one side of an issue.

You have been assigned, arbitrarily, to write in support of the view that campus police should continue to carry guns. That is, irregardless of your actual beliefs on this topic, the essay you will write should argue in favor of campus police continuing to carry guns.

Before you begin to write your own essay, you are to read an example of an essay written on the issue of whether or not campus police should carry guns. Please read carefully, but as rapidly as possible without losing comprehension. You will be asked several questions about the essay. Please answer honestly. Your papers will not be associated with you personally. Do not write your name on the booklets.



## EXPOSITORY WRITING STUDY

This study is concerned with an analysis of expository writing skills. Expository writing skill is the ability to present, forcefully, persuasively and originally, a position on one side or another of an issue. Therefore, you will be asked to write on only one side of an issue.

You have been assigned, arbitrarily, to write in support of the view that attendance should be required in classes at OSU. That is, irregardless of your actual beliefs on this topic, the essay you will write should argue in favor of mandatory attendance at classes.

Before you begin to write your essay, you are to answer several questions related to the issue of whether or not campus police should carry guns. Please answer honestly. Your papers will not be associated with you personally. Do not write your name on the booklets.

This study is concerned with an analysis of expository writing skills. Expository writing skill is the ability to present, forcefully, persuasively and originally, a position on one side or another of an issue. Therefore, you will be asked to write on only one side of an issue.

You have been assigned, arbitrarily, to write in support of the view that campus police should continue to carry guns. That is, irregardless of your actual beliefs on this topic, the essay you will write should argue in favor of campus police continuing to carry guns.

Before you begin to write your essay, you are to answer several questions related to the issue of whether or not campus police should carry guns. Please answer honestly. Your papers will not be associated with you personally. Do not write your name on the booklets.

This study is concerned with an analysis of expository writing skills. Expository writing skill is the ability to present , forcefully, persuasively, and originally, a position on one side or another of an issue. Therefore, you will be asked to write on only one side of an issue.

You have been assigned, arbitrarily, to write in support of the view that campus police should not carry guns. That is, irregardless of your actual beliefs on this topic, the essay you will write should argue in favor of campus police no longer carrying guns.

Before you begin to write your essay, you are to answer several questions related to the issue of whether or not campus police should carry guns. Please answer honestly. Your papers will not be associated with you personally. Do not write your names on the booklets.

## Should Campus Police Carry Guns?

Reputable social scientists who have recently completed a number of studies on the issue have found that campus police should carry guns. Other authorities, such as Liberace, Lawrence Welk, and Racquel Welch have argued that campus police should be stripped (of their guns). Let's set the issue straight by accompanying a young campus policeman, Kop Kelley, on a typical day.

8:04 A.M. Kop Kelley arrives at the campus police station together with four other campus policemen.

8:07 A.M. The order is given to "hand in the guns".

8:08 A.M. Five guns and four badges are handed in.

8:09 A.M. Kop Kelley practices drawing his official police long stem rose from his holster.

8:10 A.M. "Goddam pricked myself again."

8:11 A.M. "Goddam drew blood this time."

8:25 A.M. A message warning that a prowler is robbing Arps Hall comes in on the teletype.

8:30 A.M. Kop Kelley pummels the crook into submission with vicious lashes from his long stem, prize-fighting American Beauty Rose.

8:32 A.M. "Let this rose warn would-be meanies that the long stem of the law will ferret them out everywhere.

9:18 A.M. Kop Kelley stops a student for jay-walking. Is talked back to.

9:34 A.M. Kop Kelley gives a student a parking ticket. Is talked back to.

9:57 A.M. Kop Kelley fines a student for writing graffiti in a female bathroom. Is talked back to.

10:31 A.M. BULLETIN: "Jay-walker, illegal parker, and creative writer suffering from severe pummeling from a prize-fighting American Beauty Rose are rushed to the emergency room of University Hospital."

11:06 A.M. Kop Kelley reports to his supervisor "Gee Chief, playing cops and robbers is more fun now. When I had a gun no one played with me."

12:03 P.M. Kop Kelley breaks for lunch... "Hamburger, fries, shake, and a large glass of water with an aspirin for my rose here, please."

By now it must be clear that guns are necessary to campus policemen. Without them the campus police forces would be very undermanned, their efficiency greatly impaired, and their ability to act as a deterrent to criminals virtually eliminated. But for you skeptics, consider these facts.

Training policemen would be far more expensive and complicated than it is now. For example, in order to neutralize gun-wielding criminals at a distance, an officer must be trained in long-distance hypnosis, the ancient Japanese art of making oneself a small target, or the equally ancient art of falling on one's knees and begging for mercy.

In some situations we agree with Welch and Welk that guns are not necessary. For example a large, burly officer sneaking up on a rabid dog to immobilize it in hand-to-paw combat. Imagine Woody coaching the dog...Three mouthfuls and a cloud of dust!

Obviously the quality of law enforcement would be poorer. Sniveling cops on their knees deter only runny criminals. At least by-standers would not be in danger of being accidentally shot by police. Only by criminals, which is altogether less accidental.

Therefore it is clear that campus police should continue to be armed. Taking away their guns would greatly reduce the size, effectiveness, and efficiency of the campus police force.

Reputable social scientists who have recently completed a number of studies on this issue have found that campus police should carry guns. Other authorities, such as Joseph Welk, have argued that campus police should not carry guns. Let's set the issue straight by accompanying a young campus policeman, Stuart Kimble, on a hypothetical day.

8:04A.M. Officer Kimble arrives at the campus police station together with four other campus policemen.

8:07 A.M. The order is given to turn in all guns since campus police will no longer carry guns. A large number of policemen resign their positions when they learn that firearms are no longer permitted.

8:15 A.M. Officer Kimble must learn other methods of self-defense, in order to replace his former use of the gun.

8:25 A.M. A message warning that a robbery is being committed comes in on the teletype.

8:30 A.M. Officer Kimble tries to arrest the robber although he has no gun. His task is very difficult.

9:18 A.M. Officer Kimble stops a student for jay-walking. The student is disrespectful to him.

9:34 A.M. Officer Kimble gives a man a parking ticket. The man becomes angry with him.

10:31 A.M. Bulletin: Policemen no longer carrying guns have had more difficulty enforcing the law. Since they no longer carry a gun for defense and deterrence, law-breakers are much less cooperative.

By now it must be clear that guns are necessary to campus policemen. Without them the campus police forces would be very undermanned, their efficiency greatly impaired, and their ability to act as a deterrent to criminals virtually eliminated. But for you skeptics, consider these facts.

Training policemen would be far more expensive and complicated than<sup>109</sup> it is now. For example, criminals carrying guns are extremely difficult to control from any distance. Judo or karate are of little use against a bullet.

In some situations guns are absolutely necessary. For example, .. officers are sometimes called upon to shoot dangerous, rabid animals.

Obviously the quality of law enforcement would be poorer. Without guns to reinforce them, officers can deter only rather cowardly law-breakers. Although by-standers would not be in danger of being accidentally shot by police, they would become particularly vulnerable to being shot by criminals.

Therefore it is clear that campus police should continue to be armed. Taking away their guns would greatly reduce the size, effectiveness, and efficiency of the campus police force.

List below your thoughts and ideas about the issue of whether or<sup>110</sup>  
not campus police should carry guns. State your thoughts and ideas as  
concisely as possible -- a phrase is sufficient. IGNORE SPELLING, GRAMMAR  
AND PUNCTUATION! You will have three minutes to write your idea. Please  
stop writing immediately and go on to the next page when told to do so.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_



How much do you agree or disagree with the following statements?

Please circle your choice.

Campus police should continue to carry guns.

1	2	3	4	5	6	7
agree			neutral			disagree
strongly						strongly

Carrying guns is necessary for campus police to adequately perform their jobs.

1	2	3	4	5	6	7
agree			neutral			disagree
strongly						strongly

Arming campus police with guns results in more harm than benefit to the university community.

1	2	3	4	5	6	7
agree			neutral			disagree
strongly						strongly

How important is this issue to you?

1	2	3	4	5	6	7
very			neither			very important
unimportant						

How interesting was this article? (Circle the number you choose).

1	2	3	4	5	6	7
very interesting			neither			very uninteresting

How humorous was this article?

1	2	3	4	5	6	7
not at all funny			moderately funny			extremely funny

How trustworthy did you think the author?

1	2	3	4	5	6	7
not at all trustworthy			neither			very trustworthy

How entertaining was the article?

1	2	3	4	5	6	7
very unentertaining			neither			very entertaining

How well-written was the article?

1	2	3	4	5	6	7
very poorly written			neither			very well-written

Which one of the following was the author's major purpose in this article?  
(Check one)

     to convey information         to entertain         to persuade

Please respond to the following questions concerning the essay you just read. Read the questions carefully. Do not turn back to the essay.

1. How would the author respond to the following statement?

Campus police should continue to carry guns.

1	2	3	4	5	6	7
author			neutral			author
agrees						disagrees
strongly						strongly

2. Which of the following arguments did the author mention in his essay?

Please circle the letters of only those arguments which he mentioned in his essay. Read all of the arguments.

- (a) Many campus policemen would resign if they were not allowed to carry guns.
- (b) The reduction in costs due to elimination of guns would not be used to increase the salaries of campus policemen.
- (c) Citizens would be less respectful of the campus policemen if he did not carry a gun.
- (d) Guns serve as deterrents to some criminals.
- (e) Not allowing campus policemen to carry guns would cause some to carry hidden weapons for protection.
- (f) Training campus policemen would be more expensive and difficult if they could not use guns.
- (g) Campus policemen rarely use their guns.
- (h) Campus policemen would be helpless against armed criminals.
- (i) Studies conducted by social scientists found that campus police should carry guns.
- (j) Policemen carrying guns serve as models to others, thus increasing the number of citizens who carry guns.
- (k) Guns carried by campus policemen are not loaded.
- (l) Reaching criminals from a distance would be very difficult.
- (m) Campus police stations would be quite vulnerable to attack if campus police did not carry guns.
- (n) Some tasks required of the police necessitate the use of guns, such as shooting rabid animals.

Appendix F

Materials for Experiment II, Chapter 3

IV. In the box following each statement, place the number that best indicates your opinion. Use the following scale to indicate the extent of your agreement or disagreement with the following statements.

- 1 Strongly agree
- 2 Moderately agree
- 3 Slightly agree
- 4 Neither agree or disagree
- 5 Slightly disagree
- 6 Moderately disagree
- 7 Strongly disagree

- 29. Campus policemen should continue to carry guns.
- 30. Attendance should be required at classes at Ohio State University.
- 31. The use of marijuana should be legalized.
- 32. The current military budget should be increased.
- 33. The wearing of seat belts while driving in a car should be enforced by law.
- 34. Laws against all addicting drugs should be strictly enforced.
- 35. Television violence should be strictly censored.
- 36. Cigarette smoke is dangerous to the health of others around the smoker.
- 37. Laws against all hallucinogenic drugs should be strictly enforced.
- 38. Automobile insurance companies should not be responsible for paying for injuries incurred while not wearing safety belts.

V. Of the alternatives provided for each question below, chose the ONE that best indicates YOUR OPINION.

39. Currently nearly 2/3 of the Federal budget goes to the military. What % of the budget do you think should be spent on the military? (circle %)

0%    10%    20%    30%    40%    50%    60%    70%    80%    90%    100%

40. If one of your friends smoked marijuana, what would be your most likely reaction?

1	2	3	4	5	6	7
strongly approve	/ moderately approve	/ slightly approve	/ neither approve nor disapprove	/ slightly disapprove	/ moderately disapprove	/ strongly disapprove

41. If a passenger in a car you are in does not wear his safety belt, which of the following would be your most likely response?

1	2	3	4	5
order him to fasten his safety belt	ask him to fasten his safety belt	become worried but say nothing	not become worried, but notice	not notice

42. If a law concerning the censorship of T.V. programs portraying violence was being considered, what would be your most likely reaction?

1	2	3	4	5	6	7
oppose it by talking to friends	oppose it by writing congressman	oppose it by voting against it	do nothing	support it by voting for it	support it by writing congressman	support it by talking to friends

Name \_\_\_\_\_

Time \_\_\_\_\_

If a passenger driving in your car does not wear his safety belt, he should be told to fasten it.

1	2	3	4	5	6	7
agree	agree	agree	neither	disagree	disagree	disagree
strongly	moderately	slightly	agree	slightly	moderately	strongly
			nor			
			disagree			

Those who do not wear safety belts while driving should be punished by law.

1	2	3	4	5	6	7
agree	agree	agree	neither	disagree	disagree	disagree
strongly	moderately	slightly	agree	slightly	moderately	strongly
			nor			
			disagree			

How much money would you willingly donate to research concerning safety belts?

\_\_\_\_\_

Name \_\_\_\_\_

Time \_\_\_\_\_

Please evaluate the film on the following rating scales.

How trustworthy is the source of this film?

1	2	3	4	5	6	7
not at all trustworthy		somewhat trustworthy		quite trustworthy		extremely trustworthy

How funny was this film?

1	2	3	4	5	6	7
not at all funny		somewhat funny		quite funny		extremely funny

How important do you think the producers of the film consider the issue?

1	2	3	4	5	6	7
extremely important		quite important		somewhat important		not at all important

How much did this film maintain your interest?

1	2	3	4	5	6	7
very much						not at all



Appendix G

Materials for Experiment III, Chapter 3

## Response Sheet

Time \_\_\_\_\_

Sex \_\_\_\_\_

Be certain to respond to every question asked on the recording.  
Use the response scales below. Be absolutely sure to complete them  
in order. Thus, complete all scales on the first page before turning  
to the next. etc.

Rate the previous part of the recording on the following scale.

1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10

extremely serious	slightly funny	somewhat funny	quite funny	extremely funny
----------------------	-------------------	-------------------	----------------	--------------------

Rate your present mood.

1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10

extremely unhappy	somewhat unhappy	neither happy nor unhappy	quite happy	extremely happy
----------------------	---------------------	---------------------------------	----------------	--------------------

\_\_\_\_\_

Please respond to the opinion statement just played on the recording.

Circle the number indicating your feelings.

1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15				
Definitely disagree	Probably disagree	Uncertain	Probably agree	Definitely agree

Time \_\_\_\_\_

Sex: \_\_\_\_\_

**INSTRUCTIONS:** For each response you are to make after each message or opinion statement you hear, give a single number between 1 and 15 as defined below. The higher the number, the greater is your agreement. Indicate your responses in the appropriate spaces.

1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15  
 Definitely Probably Uncertain Probably Definitely  
 disagree disagree agree agree

Topic	Reactions to arguments and conclusions of message	Reaction to opinion statement
1. Admissions criteria	_____	_____
2. Requirements for teachers	_____	_____
3. Research use of animals	_____	_____
4. Defense spending	_____	_____
5. All-volunteer army	_____	_____

Response Sheet

Time .....

Sex .....

INSTRUCTIONS: For each response you are to make after each message you hear, give a single number between 1 and 15 as defined below. The higher the number, the greater is your agreement with the arguments and conclusions of the message. Indicate your responses in the appropriate spaces.

1 /	2 /	3 /	4 /	5 /	6 /	7 /	8 /	9 /	10 /	11 /	12 /	13 /	14 /	15
Definitely				Probably			Uncertain			Probably			Definitely	
disagree				disagree						agree			agree	

Topic	Reactions to arguments and conclusions
.....	of the message .....

- 1. Research use of animals .....
- 2. Volunteer army .....
- 3. Admissions to university .....
- 4. Incureable illness .....
- 5. Taxation for education .....

Time .....

Sex .....

INSTRUCTIONS: For each response you are to make after each message you hear, give a single number between 1 and 15 as defined below. The higher the number, the greater is your agreement with the arguments and conclusions of the message. Indicate your responses in the appropriate spaces.

1 /	2 /	3 /	4 /	5 /	6 /	7 /	8 /	9 /	10 /	11 /	12 /	13 /	14 /	15
Definitely	Probably		Uncertain		Probably				Probably			Definitely		
disagree	disagree				agree							agree		

Topic	Reactions to arguments and conclusions of the message
.....	.....
1. Education pre-requisites	.....
2. Campaign spending	.....
3. Retirement age	.....
4. Oral contraceptives	.....
5. Government secrecy	.....

Time \_\_\_\_\_

Sex \_\_\_\_\_

INSTRUCTIONS: For each response you are to make after each message or opinion statement you hear, give a single number between 1 and 15 as defined below. The higher the number, the greater is your agreement. Indicate your responses in the appropriate spaces.

1 / 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10 / 11 / 12 / 13 / 14 / 15  
 Definitely disagree      Probably disagree      Uncertain      Probably agree      Definitely agree

Topic _____	Reactions to arguments and conclusions of message	Reaction to opinion statement
1. Research use of animals	_____	_____
2. Volunteer army	_____	_____
3. Admissions to university	_____	_____
4. Incureable illness	_____	_____
5. Taxation for education	_____	_____



#### REFERENCES

- Berlo, D. K. & Kumata, H. The investigator: The impact of a satirical radio drama. Journalism Quarterly, 1956, 33, 287-298.
- Berlo, D. K., Lemert, J. B., & Mertz, R. J. Dimensions for evaluating the acceptability of message sources. Public Opinion Quarterly, 1969-70, 33, 563-576.
- Berlyne, D. E. Laughter, humor, and play. In G. Lindzey and E. Aronson (Eds.), Handbook of social psychology, 3, Reading: Addison-Wesley Publishing Co., 1969, 795-852.
- Brandes, P. D. The persuasiveness of varying topics of humor. Paper presented at Speech Communication Association, New Orleans, December, 1970.
- Brinkman, D. Do editorial cartoons and editorials change opinions? Journalism Quarterly, 1968, 45, 724-726.
- Burgess, T. D. & Sales, S. M. Attitudinal effects of "mere exposure": A reevaluation. Journal of Experimental Social Psychology, 1971, 7, 451-472.
- Cullen, D. M. Attitude measurement by cognitive sampling. Unpublished doctoral dissertation, Ohio State University, 1968.
- Festinger, L. & Maccoby, N. On resistance to persuasive communications. Journal of Abnormal Social Psychology, 1964, 68, 359-366.
- Freud, S. Wit and its relation to the unconscious. New York: Moffat, Yard, and Company, 1916.



- Gibb, J. D. An experimental comparison of the humorous lecture and the nonhumorous lecture in informative speaking. Unpublished M.A. thesis, University of Utah, 1964.
- Greenwald, A. G. The open-mindedness of the counterattitudinal role player. Journal of Experimental Social Psychology, 1969, 5, 375-388.
- Gruner, C. R. An experimental study of the effectiveness of oral satire in modifying attitude. Speech Monographs, 1964, 31, 231-232.
- Gruner, C. R. An experimental study of satire as persuasion. Speech Monographs, 1965, 32, 149-154. (a)
- Gruner, C. R. Is wit to humor what rhetoric is to poetic? Central States Speech Journal, 1965, 16, 17-22. (b)
- Gruner, C. R. A further experimental study of satire as persuasion. Speech Monographs, 1966, 33, 184-185.
- Gruner, C. R. Editorial satire as persuasion: An experiment. Journalism Quarterly, 1967, 44, 727-730. (a)
- Gruner, C. R. Effect of humor on speaker ethos and audience information gain. Journal of Communication, 1967, 17, 228-233 (b)
- Gruner, C. R. The effect of humor in dull and interesting informative speeches. Central States Speech Journal, 1970, 21, 160-166.
- Gruner, C. R. An experimental study of ad hominem editorial satire: Art hoppe vs. Martha Mitchell. Paper presented at Speech Communication Association Convention, San Francisco, December, 1971. (a)

- Gruner, C. R. Ad hominem satire as a persuader: An experiment. Journalism Quarterly, Spring 1971, XLVIII, 128-131. (b)
- Gruner, C. R. Art hoppe vs. capital punishment: An experiment. Paper presented at Southern Speech Communication Association, San Antonio, April, 1972.
- Gutman, J. & Priest, R. F. When is aggression funny? Journal of Personality and Social Psychology, 1969, 12, 60-65.
- Haaland, G. A. & Venkatesan, M. Resistance to persuasive communications: An examination of the distraction hypothesis. Journal of Personality and Social Psychology, 1968, 9, 167-170.
- Herold, D. Humor in advertising and how to make it pay. New York: McGraw-Hill Co., 1963.
- Hoppe, P. Humor in advertising. IPA Forum 28, October, 1969, 18-21.
- Hovland, C. I., Janis, I. L., & Kelley, H. H. Communications and persuasion. New Haven, Conn.: Yale, 1953.
- Insko, C. A. Theories of attitude change. New York: Appleton-Century-Crofts, 1967.
- Janis, I. L., Kaye, D., & Kirschner, P. Facilitating effects of "eating-while reading" on responsiveness to persuasive communication. Journal of Social Psychology, 1965, 1, 181-186.
- Kennedy, A. An experimental study of the effect of humorous message content upon ethos and persuasiveness. Doctoral dissertation, University of Michigan, 1972.
- Kilpela, D. E. An experimental study of the effects of humor on persuasion. Unpublished Masters thesis, Wayne State University, 1961.

- La Fave, L. Humor judgments as a function of reference groups: An experimental study. Dissertation Abstracts, 1961, 22, 1284.
- La Fave, L. Comment on Priest's article "Election Jokes: The effects of reference group membership." Psychological Reports, 1967, 20, 305-306.
- Landis, C. & Ross, J. W. Humor and its relation to other personality traits. The Journal of Social Psychology, 1963, IV, 156-175.
- Leavitt, C. A multidimensional set of rating scales for television commercials. Journal of Applied Psychology, 1970, 54, 427-429.
- Leventhal, H. & Mace, W. The effect of laughter on evaluation of a slapstick movie. Journal of Personality, 1970, 38, 16-30.
- Levine, J. Humor. In D. L. Sills (Ed.), International encyclopedia of the social sciences, 7, U.S.A.: Crowell Collier and Macmillan, Inc., 1968, 1-8.
- Lull, P. E. The effectiveness of humor in persuasive speech. Speech monographs, 1940, 7, 26-40.
- Markiewicz, D. The effects of humor on persuasion. Unpublished doctoral dissertation, Ohio State University, 1972.
- McGhee, P. E. Development of the humor response: A review of the literature. Psychological Bulletin, 1971, 76, 328-348.
- McGown, M. A. An experimental study of the persuasive impact of a satiric editorial and that of a comparable direct editorial. Unpublished masters thesis, University of Nebraska, 1967.

- McGuire, W. J. The nature of attitudes and attitude change. In G. Lindzey and E. Aronson (Eds.), Handbook of social psychology, (2nd ed.) Vol. 3, Reading, Mass: Addison-Wesley, 1969.
- Middleton, R. Negro and white reactions to racial humor. Sociometry, 1959, 22, 175-183.
- Orne, M. T. On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications. American Psychologist, 1962, 17, 776-783.
- Osterhouse, R. A. & Brock, T. C. Distraction increases yielding to propaganda by inhibiting counterarguing. Journal of Personality and Social Psychology, 1970, 15, 344-358.
- Phillips, K. "When a funny commercial is good, it's great!" Broadcasting, May 13, 1968.
- Pokorny, G. F. An experimental study of the impact of satiric material included in an argumentative speech. Unpublished masters thesis, University of Nebraska, 1965.
- Pokorny, G. F. & Gruner, C. R. An experimental study of the effect of satire used as support in a persuasive speech. Western Speech, 1969, 33, 204-11.
- Priest, R. F. Election jokes: The effects of reference group membership. Psychological Reports, 1966, 18, 600-602.
- Rosenberg, M. J. When dissonance fails: On eliminating evaluation apprehension from attitude measurement. Journal of Personality and Social Psychology, 1965, 1, 28-42.

- Rosnow, R. L. A delay-of-reinforcement effect in persuasive communication?, Journal of Social Psychology, 1965, 67, 39-43.
- Rosnow, R. L. 'Conditioning' the direction of opinion change in persuasive communication. Journal of Social Psychology, 1966, 69, 291-303.
- Rosnow, R. L. & Lana, R. E. Complementary and competing-order effects in opinion change. Journal of Social Psychology, 1965, 66, 201-207.
- Rosnow, R. L. & Russell, G. Spread of effect of reinforcement in persuasive communication. Psychological Reports, 1963, 12, 731-735.
- Smith, E. E. Methods for changing consumer attitudes: A report of three experiments. Project Report Quartermaster Food and Container Institute for the Armed Forces (PRA Report 61-2). February, 1961.
- Snyder, A. F. The effects of demand characteristics upon conformity in Judgments of humor. Dissertation Abstracts International, 1971, 31, 7581.
- Taylor, Pat M. The effectiveness of humor in informative speeches. Central States Speech Journal, 1964, 13-15, 295-296.
- Weingarten, J. Is "far-out" advertising entertaining the public more but selling it less? Dun's Review, July, 1967, 27-28 & 45.
- Windes, R. R., Jr. A study of effective and ineffective presidential campaign speaking. Speech Monographs, 1961, 28, 39-49.
- Wolf, H. A., Smith, C. E. & Murray, H. A. The psychology of humor. Journal of Abnormal and Social Psychology, 1934, 28, 341-365.

- Youngman, R. C. An experimental investigation of the effect of germane humor versus non-germane humor in an informative communication. Unpublished masters thesis, Ohio University, 1966.
- Zeman, J. V. An experimental study of the persuasive effects of satire in a speech presented to a high school audience. Unpublished masters thesis, University of Nebraska, 1967.
- Zimbardo, P., Snyder, M., Thomas, J., Gold, A., Gurwitz, S. Modifying the impact of persuasive communications with external distraction. Journal of Personality and Social Psychology, 1970, 16, 669-680.