

The Vividness Effect: Elusive or Illusory?

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In spite of the widespread use of vivid messages by advertisers and other would-be persuaders, empirical research has generated little support for the vividness effect. The apparently common belief in the persuasive powers of vividness, coupled with this lack of supporting research, suggests the possibility that vividness has an illusory effect on judgments. Two studies are presented which investigated this hypothesis. Both operationalized vividness as concrete and colorful language. In Study 1, subjects rated vivid messages as significantly more persuasive than the same messages presented in a less colorful manner, thus demonstrating the pervasiveness of belief in the vividness effect. Study 2 confirmed that this belief may be the result of an illusion. Vivid messages produced an effect on judgments of a message's general persuasiveness, but not on judgments of one's own persuasion or on measures of actual attitude change. Study 2 also examined two possible sources of this illusion: (1) people recall vivid communications better than nonvivid messages and infer that they and/or others have been persuaded, and (2) people believe that interesting, attention-getting communications are persuasive and consequently infer that they and/or others have been persuaded after being exposed to a vividly presented communication. Results show that people infer persuasion based on interest and attention rather than recall. © 1988 Academic Press, Inc.

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“Information may be described as vivid, that is, as likely to attract and hold our attention and to excite the imagination, to the extent that it is: (a) emotionally interesting, (b) concrete and imagery-provoking, and (c) proximate in a sensory, temporal or spatial way” (Nisbett & Ross, 1980, p. 45). It has been proposed that such vividly presented information has a disproportionately strong impact on people’s attitudes (Nisbett & Ross, 1980). In addition, widespread belief in this effect on the part of the general public can be inferred from the frequent use of vividness in advertising and other persuasive media (Aaker, 1975; Ogilvy, 1963). Despite this popularity, empirical demonstrations of the vividness effect have eluded researchers.

Taylor and Thompson (1982) reviewed more than two dozen studies which operationalized vividness in a number of different ways. They found that concrete descriptions have no consistently greater impact on judgments than more pallid and dull ones, pictorially illustrated information is no more persuasive than equivalent information unaccompanied by pictures, videotaped information has no consistently greater impact on judgments than oral or written information, and personal contact is not inherently more persuasive than vicarious experience. The only type of vivid information that appears to have a significant impact on judgments is that presented in the form of case histories, which is subject to a confounding, and hence alternative, explanation (Taylor & Thompson, 1982).

Research addressing more limited versions of a vividness effect also remains inconclusive. Some evidence (Reyes, Thompson, & Bower, 1980) suggests that vividly presented information may be differentially impactful only after a delay, although other studies have failed to find such an effect (see Shedler & Manis, 1986; Taylor & Thompson, 1982, for a review). A recent pair of studies (Shedler & Manis, 1986) found significant effects of vividness on judgments immediately after message presentation. The study used two-sided as opposed to one-sided communications, leading to the possibility that, with two-sided communications, vivid material may have a persuasive edge. However, other studies using two-sided communications (Reyes et al., 1980; Taylor & Thompson, 1982) have not found similar effects. Although continuing research may yet reveal support for a modified vividness effect, over 25 studies have not done so to date. Thus, overall, the evidence does not support the persuasive effects for vivid material that have been proposed.

In an effort to reconcile the absence of evidence for a vividness effect both with widespread belief in it and with empirical evidence supporting a conceptually related phenomenon termed salience (McArthur, 1981; Taylor & Fiske, 1978), Taylor and Thompson (1982) proposed that the

persuasive effects of vividness may be evident only under conditions of differential attention. That is, vividly and nonvividly presented information may have an equal impact on judgments when there is sufficient processing time to take in a message. However, vivid material may compete more successfully for attention under conditions of distraction and hence be more persuasive than nonvivid information only under conditions of competition for attention. Two of the present authors (Taylor & Wood, 1983) undertook several efforts to test this hypothesis. All of these studies created fieldlike settings in which individuals were exposed to radio messages presented either vividly or nonvividly under conditions of full or divided attention. None of the investigations provided any support for the hypothesis that vividly presented information competes more successfully than nonvivid information under conditions of divided attention. A recent investigation by Shedler and Manis (1986) adopted a similar method and also failed to find support for this hypothesis.

The failure of this attempted resolution left the conflict between belief in the vividness effect and lack of empirical evidence for the effect intact. This paradox has led us to propose that belief in the vividness effect represents an illusion: that vividly presented information has some effect on perceivers that is not persuasion but is nonetheless perceived to be persuasion. The Taylor and Thompson review (1982) suggested two possible sources of this illusory persuasion. First, vivid information has a consistently greater impact on memory than more pallid material. It may be that people remember vivid information better than nonvivid information and, as a function of this superior memory trace, conclude that they have been persuaded when they have not (i.e., the recall hypothesis). Second, vivid information is consistently perceived as colorful, graphic, attention-getting, and interesting. If interesting, attention-getting, and colorful communications are believed to be more inherently persuasive than pallid and dull presentations, then people may erroneously assume that they have been persuaded by such a presentation, when they have merely been engaged (i.e., the interest value hypothesis).

Nisbett and Wilson (1977) have demonstrated that people are sometimes unaware of, or at least unable to report, the factors that influence their judgments. Their subjects' errors included both the failure to recognize real sources of influence as well as the belief that actually ineffectual factors had influenced them. They suggested that these errors may be engendered by "a priori causal theories" about the kinds of things that influence attitudes. We propose that people's theories about their own and others' susceptibilities to influence may include the "vividness effect." Vivid material may have some other effect on a perceiver (enhanced recall or interest value) that is believed to be associated with, and thus

assumed to produce, persuasion. This experience may then lead to a common theory of (and misplaced faith in) the vividness effect.

People may hold beliefs about an effect at two levels. How people believe *they* will react to a stimulus and their beliefs about its more general effects may not be the same; i.e., they may hold general rules to which they consider themselves exceptions. The Nisbett and Wilson (1977) studies concerned only the correspondence between people's theories about their own reactions to a situation and observers' theories about how *they* would react if placed in a similar situation. Thus, these investigations dealt solely with people's theories about themselves. Nonetheless, if general a priori causal theories are used to account for one's own behavior, they may provide inferences about more general effects as well. We tested this question empirically. Three possibilities were considered: (1) people believe that vivid material is generally more persuasive than less vivid presentations, but that they themselves do not succumb to its effects, (2) people believe in a general and pervasive vividness effect to which their own attitudes are vulnerable, and (3) people do not believe that vividness has any special effect to which they or others might succumb.

The following studies examined the two hypothetical sources of the vividness illusion. Since both hypotheses rest on the assumption that vividly presented information is widely perceived as more persuasive than less colorful presentations, the prevalence of this view was assessed in Study 1. Study 2 tested the relative effects of vividness on perceived and actual persuasion, and the possible influence of recall and interest value on these variables' relation.

In both studies, we operationalized vividness via concrete and colorful language. This was done for several reasons. First, this operationalization has high face validity, and seems to capture what people mean when they refer to vividness. Second, it is a less confounded operationalization than are several other potential choices (e.g., direct experience, case history versus statistics). Third, it is one of the most commonly employed vividness manipulations in advertising and in social psychological investigations. And finally, despite its common use, it almost never produces vividness effects (Taylor & Thompson, 1982). Consequently, it is one of the better manipulations for exploring the potential role of illusory influences.

STUDY 1

Study 1 was designed to demonstrate that belief in the vividness effect exists and to assess its pervasiveness. Subjects' theories concerning their own reactions and their more general theories concerning vividness were assessed separately.

Method

Subjects

Subjects were recruited from introductory psychology classes and received course credit for their participation. There were 32 participants, run in groups of 7 to 10 people.

Independent Variables

Each subject heard a vivid and a nonvivid version of a news-story-like message about juvenile crime. The messages discussed the increasing number of crimes committed by juvenile offenders. They gave details of the bizarre and often violent nature of these crimes and suggested that juvenile suspects be tried as adults. The order in which the messages were heard was counterbalanced across subjects, with half hearing the vivid message first, and half hearing this message last. Vividness was operationalized as concrete and colorful language. For example, the nonvivid version of the juvenile crime message contained the statement: "Elderly people engaged in daily activities in and around their homes are often the victims of these juvenile criminals" and went on to argue that "a change in current legislation may help to prevent these kinds of crimes and to protect society from any future harm." The vivid version conveyed this same information in the following manner: "In one instance, a defenseless 70-year-old woman was jumped and brutally beaten by two teenage boys as she worked alone in her garden" and continued "young criminals must be held fully responsible for their actions, for the safety of us all." Message length was constant (1 min, 20 s) across versions, and the informational content of the two messages was nearly identical. Each fact or idea presented in the vivid version was included in the nonvivid message as well. The two messages differed largely in the specificity of details presented. More references to particulars such as names or specific instances occurred in the vivid versions, as well as more colorful language.

Procedure

When subjects reported for the sessions, they were told that they would be participating in a study of the "characteristics of persuasive messages." They were informed that they would be hearing two tape-recorded versions of a message and evaluating each. Before the first tape was played, subjects were asked to "listen carefully. As you listen, be thinking about how the message might be affecting your attitudes, and how you think it might affect the opinions of others who hear it." The experimenter played the first tape and distributed the first set of dependent measures, Questionnaire 1.

Before the second tape began, subjects were again instructed to think "about how the message might affect your own attitudes and those of others." This time they were also asked to "think about how this tape is different from the last one, and how these differences might affect you and others, if at all." Differences between the two messages were emphasized in order to ensure the manipulation of perceived vividness. This enabled the exploration of subjects' theories concerning the effect of this manipulation. Following the second tape, Questionnaire 2 was distributed. When the experimenter was sure that this had been completed, the final questionnaire (Questionnaire 3) was passed out. When this was complete, subjects were debriefed and released.

Dependent Measures

Questionnaire 1 consisted of two assessments of perceived persuasiveness. Subjects were asked, "In general, how persuasive do you think this message was?" and "To what extent do you think your opinions on this issue were influenced by this message?" Responses were made on a 9-point scale with end-points labeled *not at all* and *very much*. The first of these questions provided information concerning subjects' theories about the persuasive

qualities of vividness in general. The second question allowed subjects to identify themselves as exceptions to this general rule, providing an assessment of theories about oneself.

Questionnaire 2 began with these same two items for the second message version. Following them were two questions directly comparing the tapes. Subjects were asked, "In general, which version was more persuasive?" and "Which tape was most successful in influencing your opinions on this issue?" Response options for Questions 3 and 4 were "Neither, the tapes were equally persuasive," "Tape 1," or "Tape 2." The next question asked subjects whether, in fact, they had "found the messages to be different in any important way?" (response was a yes/no choice). A negative response to this item allowed subjects to avoid any pressure that might exist to choose between the messages in response to the subsequent open-ended item.

In the final question, subjects who had found the tapes significantly different were asked to indicate "how they were different, and what effect did these differences have on you and others?" They were given a full page on which to respond to this item. The open-ended response format was chosen in order to minimize situational demand characteristics. Thus, if subjects identified vividness as an important difference between the tapes, they did so spontaneously.

Questionnaire 3 was a checklist composed of 10 message characteristics commonly thought to affect attitudes. Subjects were asked to "check the characteristics you think make a message more persuasive." They were instructed to check as many or as few as they felt appropriate. Five of these characteristics were explicitly related to vividness: how interesting the message is, how entertaining it is, whether specific examples are given, how attention-getting the message is, and how colorful or graphic it is. Other items included were message length, number of separate arguments, and similar factors. The checklist was included to substantiate the information obtained in the free-response question, and to supplement it if responses were scanty. It was deliberately administered separately and last in order to avoid "prompting" subjects with possible theories of persuasion.

Results and Discussion

In order to curtail the demand characteristics an allusion to such qualities might produce, a direct manipulation check of the messages' relative vividness was avoided. Nonetheless, 94% of the subjects felt the tapes were different in "some important way" (Question 5 from Questionnaire 2). Additionally, responses to the open-ended question (detailed below) show that every one of these 94% referred to some quality related to vividness in differentiating the two tapes. The concrete and colorful language manipulation was thus considered successful.

A $2 \times 2 \times 2$ (message vividness \times order of presentation \times general vs personal perceived persuasion) repeated measures analysis of variance was conducted to assess the persuasiveness ratings for the two tapes (a within-subjects variable), the effects of vividness (within-subjects), and presentation order (between-subjects) on these ratings. The analysis revealed a main effect for vividness, $F(1, 30) = 48.17, p < .001$, such that more vivid messages produced significantly higher ratings of perceived persuasion than less vivid versions. There was also a main effect for type of perceived persuasion, $F(1, 30) = 20.63, p < .001$; perceived general persuasion was significantly greater than perceived personal persuasion. The interaction between vividness and type of persuasion was

marginal, $F(1, 30) = 3.60$, $p = .07$, the superior persuasion attributed to vivid messages being nonsignificantly greater for general as opposed to personal perceived persuasion. Means for the vivid versions were 6.16 (general perceived persuasion) and 4.72 (personal perceived persuasion), while means for the nonvivid versions were 3.56 (general) and 2.75 (personal). There were no effects of order of presentation.

Responses to the comparative questions (Questions 3 and 4 from Questionnaire 2) showed that 81% of subjects believed the vivid version to be more persuasive in general, and 78% believed it to have been more successful in changing their own attitudes (a difference of one subject). There were no effects for order of presentation on either of these two measures.

Analysis of the open-ended question (Question 6 from Questionnaire 2) was conducted on the data from the 94% of subjects ($N = 30$) who had indicated that the tapes were different (recall that subjects who did not believe this to be the case were not asked to respond to the open-ended question). The analysis was conducted separately for each of three groups of subjects; those who felt the vivid version was both generally and personally more persuasive (81% of the 30 subjects responding), those who felt the nonvivid version was both generally and personally more persuasive (15.6%), and the 1 subject who felt that the vivid version would be more persuasive to others, but was not persuaded him- or herself.

Responses were coded on the basis of nine categories. These categories encompassed all qualities expressed by subjects to be predictive of persuasion. They were the following: has the ability to induce emotion, provokes imagery, evokes interest, uses specific examples, uses descriptive language or detail, enhances memory, informative, clearly presented, and speaker is expressive. All but the latter three of these qualities are related to the concept "vividness." Responses were coded for the presence or absence of references to each of the nine categories by each subject. Two independent raters were used, one of whom was blind to the purpose of the study. Interrater reliability, based on percentage of agreement for occurrences, was 73%.

Of those who felt the vivid version was more persuasive, the percentage of subjects who used one or more of these "vivid" categories was 89%. As Table 1 indicates, the three most frequently mentioned qualities were the use of descriptive language (64%), the ability to evoke emotion (32%), and the use of specific examples (43%).

Of the four subjects who felt the nonvivid version was more effective, two described the differences between the tapes as based in their ability to evoke emotion. They felt the vivid version used a poor persuasive strategy because it was "manipulative." The other two subjects gave no reasons for their preferences.

TABLE 1

RESPONSE FREQUENCIES FOR OPEN-ENDED QUESTION: PERCENTAGE OF SUBJECTS MENTIONING A GIVEN QUALITY OF THE VIVID TAPE-MESSAGE AS MAKING IT PARTICULARLY CONDUCTIVE TO PERSUASION (STUDY 1)

Quality of vivid tape	Percentage of subjects	N
Emotional*	32	9
Imagery evoking*	14	4
Use of case history or examples*	43	12
Interesting*	25	7
Use of description or detail*	64	18
Enhances recall*	4	1
Use of clear presentation	11	3
Informative	7	2
Speaker expressiveness	39	11

* Indicates qualities related to the vividness construct.

Because the checklist of "characteristics that make a message more persuasive" did not refer specifically to the materials used in this study, tape preference was disregarded and all subjects were included in a single analysis of this measure. The responses provide additional support for the data obtained with the open-ended measure. One hundred percent of subjects designated one or more of the five "vividness" items as inducing attitude change. The frequency of endorsement for each of these items was use of examples, 97%; attention-getting, 72%; interesting, 66%; colorful, 60%; and entertaining, 28%.

STUDY 2

Belief in vividness effects appears to be widespread. A large majority of subjects believed that a message utilizing concrete and colorful language was a more effective persuader than a more pallid version of equal probative value.

In order to demonstrate that this pervasive belief is unfounded, and that the vividness effect is illusory, actual and perceived persuasion should be pitted against one another. The same conditions that fail to produce persuasion should be demonstrated to produce the *perception* of persuasion on the part of subjects. Study 2 was designed for this purpose, as well as to test the possible sources of an illusion.

Method

Overview

In order to obtain a measure of actual change in judgments against which to compare perceptions of persuasion, a pretest/post-test design was used. Subjects' judgments were initially surveyed concerning several topics. Two to 3 weeks later, they were each exposed to both vivid and nonvivid versions of messages concerning these topics. Following this

exposure, subjects' judgments were reassessed, their ratings of each message's interest and entertainment value were obtained, and their recall of each message was measured.

Pretesting

Pretest subjects were 58 undergraduate psychology students participating for course credit. These subjects signed up for an "attitude survey" and were unaware of the second (experimental) portion of the study. Participants were run in groups of 8 to 12 people. When all subjects in a given session had arrived, they were told that the experimenter was interested in learning their opinions about several different topics.

Each subject was given a booklet labeled "Attitude Survey." The booklet consisted of four questions for each of the four topic areas to be used in the experimental manipulation. Examples of items from the juvenile crime topic discussed in Study 1 are, "Do you believe that juveniles should be held responsible for their actions?" and "Are the elderly particularly likely to be victims of juvenile offenders?" Two items concerning space travel and colonization of the moon were "How much would you like to live on the moon when it is colonized?" and "Do you think NASA should continue spending money exploring the possibilities of life on the moon?" Items for the other topics were similar in nature, assessing attitudes toward an issue and awareness of factors important to the problem discussed. An additional four groups of distractor questions concerning unrelated topics were included as well.

Experimental Phase

Of the 58 pretest subjects, 33 agreed through a later telephone recruitment to participate in what they were led to believe was a separate study (actually the experimental phase). Recruiters for the second study made no mention of the pretesting and simply requested participation in a study of message characteristics. Nonparticipants typically refused because they had already met their subject pool requirement or because of time constraints; a few could not be reached by telephone. A *t* test revealed no difference on the pretest attitude measures between participants and nonparticipants. Participants in this phase received additional course credit or a small payment for their time.

Subjects were run in groups of one to three people, randomly assigned to a version of the experimental treatment. In order to reinforce the assertion that this was a separate study from the pretest, the experimenter for this phase of the study was a different person from that of the pretest phase. Each group of participants was told that the study concerned message characteristics, and that they would listen to a short tape-recording and then complete a questionnaire concerning this tape.

Vividness was again operationalized as concrete and colorful language. Two versions of the stimulus tape were constructed. Each contained four messages, one from each of four topic areas that had been pretested. The topics used were dangers to children in the home, space travel, juvenile crime, and color's effect on mood. The juvenile crime message was the same as that described in Study 1. The other three messages were of a similar nature, each containing some "factual" information but also advocating a positive or negative attitude toward the theme (i.e., that juvenile crime is a serious problem, that habitation of the moon is desirable). In one tape version, two of the messages were portrayed vividly (juvenile crime and color and mood) and two in a nonvivid manner (dangers to children and space travel). The second tape was the inverse of the first, with the messages on each tape presented in a random order. The speaker's voice alternated between a male and female voice with each change in topic.

Informational content and message length were held approximately constant across vivid and nonvivid versions of each topic. The resulting messages were each approximately 2 min in length.

Dependent Measures

At the conclusion of the tape, the experimenter distributed the dependent measures. Because subjects had recently seen the attitude items in what they had been told was an unrelated study, some explanation was in order. Therefore, after all subjects had received their forms, the experimenter announced that "A few of the participants in this study have mentioned having seen these questions before. The items were pretested earlier in the quarter, and it is possible that you participated in that study. We do not expect this to affect our results, so if this is the case with you, please just answer the questions with your current opinions on the issues." No subjects expressed suspicion regarding this explanation.

The questionnaire consisted of the same four groups of four judgment items that were used in pretesting (distractor items were omitted). Following the four items for a given topic were the two questions that served as manipulation checks. These asked: "In general, to what extent was this message vividly presented?" and "To you, personally, to what extent was this message vividly presented?" Perceptions of vividness were assessed at both the general and personal level, since it is possible that general versus personal vividness may influence perceived general versus personal persuasion differently.

The two items following the manipulation checks collected data for the interest value hypothesis. Subjects were asked: "How interesting or attention-getting would the average person find this message?" and "How interesting was the message to you, personally?" Again, it was considered possible that general versus personal perceptions of the message might differ.

The next items assessed subjects' perceptions of general and personal persuasion. Subjects were asked, "How persuasive do you think this message was?" (perceived general persuasiveness) and "To what extent do you think your opinions on this issue were influenced by this message?" (perceived personal persuasiveness). All of the above items were assessed on 9-point scales with labeled end-points, ranging from *not at all* to *very much*.

The final four pages of each booklet contained the memory measures to examine the recall hypothesis. Subjects were asked to recall everything they could from each of the messages. When the questionnaires were completed, subjects were paid or given credit and debriefed.

Results

Stimuli Effectiveness

In order to test the effectiveness of the vividness manipulation, a 2×2 vividness (within-subjects) by tape version (between-subjects) repeated measures analysis of variance was conducted on the combined general and personal ratings of vividness. To create the repeated measure of vividness, the general and personal ratings of the two vivid messages (i.e., color and mood and juvenile crime for half the subjects, dangers to children and space travel for the remaining half) were summed and averaged and compared to the subject's combined and averaged ratings of the nonvivid messages. The main effect of vividness was highly significant, $F(1, 31) = 13.41, p = .001$. An examination of individual topic means indicated that vivid versions of each message produced greater perceptions of vividness than their nonvivid counterparts for three of

the four topics. For the color and mood topic, there was a slight reversal. Tape version had no effect on ratings of vividness.

Before examining the effect of vividness on actual judgment change, one must first demonstrate that the messages are potentially persuasive. Otherwise, a finding of "no difference" between vivid and nonvivid conditions does not necessarily imply that vividness has no effect; it may mean simply that neither version of the message has any persuasive impact. If a message is completely unsuccessful in changing subjects' judgments, the addition of vividness may not be able to overcome this ineffectiveness. Thus, to ensure both that messages were attended to by subjects, and that their judgments were at least somewhat affected, a test of the messages' overall persuasiveness was conducted. The pretest ratings on the attitude items for each of the four topics were separately summed to create four pretest measures of attitudes. The same was done with post-test items for each topic, resulting in a total of eight (four topics, pretest and post-test) attitude measures for each subject. A one-way (pre/post) repeated measures multivariate analysis of variance was conducted on these items. Pretest and post-test judgments were significantly different, $F(4, 29) = 876.0, p < .001$. Judgments changed in the direction advocated by all four messages. The messages were consequently deemed to be effective persuaders.

The "Vividness Effect"

To test for vividness effects on actual attitudes, each subject received a separate attitude change score for vivid and for nonvivid messages. These scores were computed by subtracting composite pretest scores from post-test scores within each topic, and then separately averaging the scores for the two messages presented vividly to that subject and those presented nonvividly. A 2×2 vividness by tape version repeated measures analysis of variance was then conducted on these scores, using vividness as a repeated measure. As predicted, vivid messages had no greater impact on judgments than did nonvivid messages, $F(1, 31) = 0.10, p = .75$. There were no effects of tape version on the analysis. The mean differences for each topic favored a vividness effect for one message only (space travel means were 4.44 and 0.64 for vivid and nonvivid conditions, respectively), but this difference was not significant ($p = .44$). For the other three topics, nonvivid conditions actually showed greater judgment change than did the vivid conditions: 1.75 and 0.06 (juvenile crime), 2.88 and 1.30 (color and mood), 2.17 and 0.56 (dangers to children) for the nonvivid and vivid versions, respectively. Thus, consistent with the findings of previous studies (Taylor & Thompson, 1982), vividness had no effect on actual changes in judgments. Consequently, the illusion hypotheses were examined.

TABLE 2
MEAN RATINGS OF GENERAL AND PERSONAL PERCEIVED PERSUASION, BROKEN DOWN BY
VIVIDNESS (STUDY 2)

	General		Personal	
	Vivid	Nonvivid	Vivid	Nonvivid
Space travel	6.06*	4.35	5.06	4.76
Juvenile crime	7.41**	5.69	5.65	4.63
Color and mood ^a	5.00*	6.13	4.24	5.50
Dangers to children	6.38	6.12	4.81	5.06

^a Although the means are reversed for this topic, the reader will note that this is also the topic for which the vividness manipulation check was reversed. Thus, the direction of the means is consistent with that of the other messages if *perceived* vividness is taken into account.

* Difference between vivid and nonvivid means is significant, $p < .05$.

** Difference between vivid and nonvivid means is significant, $p < .01$.

The Illusion Hypotheses

According to both the recall and the interest value hypotheses, subjects exposed to a vivid message will perceive the message as more persuasive than will subjects exposed to a nonvivid message. To test this effect, each subject's ratings of perceived general persuasion were averaged for the two messages presented vividly to that subject, and separately averaged for those messages presented to that individual in a less vivid manner. The same was done with ratings of perceived personal persuasion. These four averages (vivid/general, vivid/personal, nonvivid/general, and nonvivid/personal) were then submitted to a $2 \times 2 \times 2$, vividness (within-subjects) by type of persuasion (within-subjects) by tape version (between-subjects) repeated measures analysis of variance. Contrary to the illusion hypothesis, vividness did not significantly affect ratings of persuasion, $F(1, 31) = 1.88$, $p = .18$. However, this finding is qualified by a significant interaction between vividness and type of perceived persuasion, $F(1, 31) = 6.16$, $p = .02$. Simple comparisons showed that vivid messages were perceived as significantly more persuasive on three of the four ratings of general persuasion. Differences between vivid and nonvivid messages were not large enough to reach significance for any of the ratings of perceived personal persuasion.¹ See Table 2 for these means.

As suggested by this trend in the size of means, the above analysis

¹ For personal persuasion, vivid versions of messages were perceived as more persuasive than nonvivid messages for two of the four topics. For a third topic, the manipulation check was reversed, and so the message perceived as more vivid was also perceived as more persuasive. Overall, then, there may be a trend such that people perceive vivid messages to be more personally persuasive than nonvivid messages. This trend is replicated in Study 1.

TABLE 3
CORRELATIONS BETWEEN RATINGS OF GENERAL AND PERSONAL PERCEIVED PERSUASION AND
ACTUAL ATTITUDE CHANGE, STUDY 2

Topic area	General	Personal
Space travel	.428*	.083
Juvenile crime	-.167	-.165
Color and mood	.435*	.322*
Dangers to children	-.138	.133

* $p < .05$, all other correlations are nonsignificant, $df = 31$.

also showed a main effect for type of perceived persuasion, $F(1, 31) = 15.06$, $p = .001$. Both vivid and nonvivid messages were rated as more generally persuasive than personally persuasive. As in previous analyses, tape version had no effect on the ratings.

A question indirectly related to the illusion hypotheses is whether subjects' ratings of perceived general and personal persuasiveness were related to the actual attitude change they experienced. To test for this, correlations were calculated for both perceived general and personal persuasion with a composite measure of post-test minus pretest attitudes for each topic. As can be seen in Table 3, actual attitude change was inconsistently related to perceived persuasion. Two of the general ratings and one of the personal ratings were significantly and positively correlated with attitude change, while the other correlations were nonsignificant and occasionally negative. This provides further evidence that ratings of general and personal persuasion are based on some factor other than actual attitude change.

The Recall Hypothesis

The recall measure was scored as percentage of total number of central content items correctly remembered for each topic. Examples of "central content items" for the juvenile crime message previously described would be "teenage attackers," "unaggravated assault," and "older female victim." Two independent raters were used, one of whom was blind to the hypothesis. Interrater reliability, based on agreement for occurrences only, was 91%.

To test for an effect of vividness on recall, another 2×2 (vividness by tape version) repeated measures analysis of variance was conducted. Correct-recall percentages for the topics presented vividly and nonvividly to each subject were separately averaged, and the two resulting scores were submitted to this analysis. Consistent with the findings of previous studies, vividness had a large effect on recall, $F(1, 31) = 26.76$, $p < .001$. Examination of the means showed greater recall of the vivid versions

TABLE 4
CORRELATIONS BETWEEN PERCENTAGE CORRECT RECALL AND PERCEIVED PERSUASION
(CONTROLLING FOR ACTUAL ATTITUDE CHANGE), STUDY 2

Topic area	Persuasiveness	
	General	Personal
Juvenile crime	.156 (.178)	-.012 (.006)
Space travel	.016 (.065)	.143 (.153)
Color and mood	.064 (-.014)	.149 (.100)
Dangers to children	.249 (.226)	.001 (.032)

Note. All correlations are nonsignificant, $p > .05$, $df = 31$ and (30). Numbers outside parentheses are correlations between recall and perceived persuasion. Numbers inside parentheses are recalculated correlations, controlling for actual attitude change.

for all four topics. The average recall of nonvivid messages was 31% while that of vivid messages was 41%. Tape version did not affect recall.

If the illusion of persuasion stems from the experience of recall, as hypothesized, persuasiveness ratings and recall scores should be correlated. To test this, ratings of general and personal perceived persuasion, as well as recall scores, were collapsed across vividness within each topic area. Each of the two ratings of perceived persuasion were then correlated with recall. As may be seen in Table 4, amount of recall bore little relation to perceived persuasion, either general or personal.²

To control for the possibility that actual attitude change may mediate the relation between recall and perceived persuasion, suppressing the correlations, figures were recalculated, partialing out the difference between post-test and pretest scores. As can be seen in the parenthesized portion of Table 4, actual attitude change did not affect the relation between recall and perceived persuasion. Correlations changed only slightly, and all remained nonsignificant.

The Interest Value Hypothesis

The interest value hypothesis states that the illusion of persuasion occurs because people believe vivid communications are persuasive. Thus, when exposed to communications they perceive as particularly vivid or interesting, people assume that they have been persuaded. If this is true, ratings of a message's interest and vividness should covary with those of general and personal perceived persuasion. To test for this, perceived general and personal persuasion were correlated with ratings

² Although there are consistently positive correlations between the two variables, (seven out of eight), they are quite small, none of them reaching significance. Improved recall is, therefore, not a sufficient explanation of the vividness illusion, although it may be somewhat related to perceived persuasion.

TABLE 5
CORRELATIONS OF INTEREST/ATTENTION AND VIVIDNESS PERCEPTIONS WITH PERCEIVED
PERSUASION (CONTROLLING FOR ACTUAL ATTITUDE CHANGE), STUDY 2

Perceived persuasion	Vividness		Interest/attention	
	General	Personal	General	Personal
General				
Juvenile crime	.547*** (.542***)	.647*** (.635***)	.567*** (.566***)	.704*** (.701***)
Space travel	.536*** (.532***)	.512*** (.548***)	.521*** (.499**)	.420** (.399**)
Color and mood	.778*** (.729***)	.729*** (.651***)	.530*** (.431**)	.627*** (.521***)
Dangers to children	.623*** (.616***)	.765*** (.763***)	.502*** (.487**)	.811*** (.808**)
Personal				
Juvenile crime	.414** (.407**)	.648*** (.636***)	.471** (.468**)	.698*** (.695***)
Space travel	.334* (.326*)	.632*** (.631***)	.298* (.289)	.593*** (.590***)
Color and mood	.755*** (.722***)	.600*** (.536***)	.473** (.396**)	.580*** (.510***)
Dangers to children	.545*** (.572***)	.628*** (.648***)	.465** (.537***)	.686*** (.742***)

Note. Numbers outside parentheses are correlations between perceived vividness and perceived persuasion. Numbers inside parentheses are recalculated correlations, controlling for actual attitude change; $df = 31$ and (30) .

* $p < .05$.

** $p < .01$.

*** $p < .001$.

of interest-attention and with those of vividness. As can be seen in Table 5, all correlations were highly significant.

To control for any amount of actual changes in judgments which may have occurred, and which might mediate the relation between interest value and perceived persuasion, correlations were recalculated, partialing out actual judgment change (as measured by the difference between post-test and pretest scores). As can be seen in the parenthesized portion of Table 4, correlations declined only slightly, with all but one remaining statistically significant. There do not appear to be any differences between the correlations for general and personal ratings of persuasion with interest value. These data present strong evidence for the interest value hypothesis.³

³ Although our hypotheses do not suppose the relation between recall or interest value and perceived persuasion to be specific to vivid messages, it was considered of interest to test for this. Correlations were thus computed separately for vivid and nonvivid topics.

Discussion

The findings strongly support the hypothesis that there is an illusory vividness effect. This effect holds true primarily for judgments concerning others' persuadability, and may exist to a lesser extent for judgments of oneself. The manipulation of vividness through the use of concrete and colorful language produced an effect on perceived general persuasion, but not on perceived personal persuasion or actual attitude change. As indicated by the correlations, this effect appears to be produced by the interest value of vivid material. There were no differences in the strength of the relation between this quality and personal versus general perceived persuasion.

No support was found for the hypothesis that recall mediates the effect of vividness on perceived persuasion. The extent to which subjects recalled a message was unrelated to their perceptions of persuasion. The findings of Studies 1 and 2 support the hypothesis that vividness has an illusory effect, stemming from peoples' beliefs that material that is interesting, colorful, and attention-getting is also persuasive. When asked to make a judgment about the effectiveness of a message, people apparently use an *a priori* causal theory which assumes a relation between interest value and persuasion. This finding appears to be quite robust.⁴

In addition, all messages, whether vivid or not, were perceived to influence other people more than one's self. It appears that there may be a general tendency to see others as more easily manipulated and misled than oneself. This apparent difference between judgments concerning changes in one's own attitudes and judgments concerning general persuasion seems to be enhanced in the case of effects to which one might be reluctant to admit personal susceptibility, such as vividness. The interaction between vividness and type of persuasion was marginal in Study 1 and significant in Study 2. When the assumed reaction to a stimulus is not a rational or justified one, as is true of a vividness effect, people are probably likely to perceive the effect as true in general but not of themselves. While acknowledging that a message is quite powerful, they may claim a superior level of resistance to its effects. This is supported by the anecdotal statements of Aronson concerning the forced compliance debriefings. He recalls that his subjects, when informed of the hypothesis of a study, "typically said it was very plausible and that many people may react in this way, but they themselves had not" (quoted in Nisbett & Wilson, 1977). Dissonance reduction, like supposed vividness effects,

The relations of recall and interest value to perceived persuasion remained consistent with those reported for the more general test, in spite of the low *N* involved in these new analyses.

⁴ The correlational relationships between entertainment and perceived persuasion have been replicated in another, unpublished, study by the present authors.

may be perceived as an irrational reaction, and as such may not be considered as likely of oneself as of others.

CONCLUSIONS

The research presented here, together with the findings of Taylor and Thompson (1982), indicate that individuals are not typically influenced by what was believed by social researchers to be an influential biasing factor, the vividness of the presentation of a persuasive message. Beyond this, the present study suggests that social psychologists and marketing researchers are not alone in their misperception of the ordinary person's susceptibility to vividness effects; naive perceivers share the same beliefs about their fellow person and, to some degree, themselves.

More than two dozen studies have now been conducted to examine the idea that vividly presented information is inherently more persuasive than nonvividly presented information. The so-called vividness effect has generated research in three different fields (psychology, communications, and education); it has spawned extensive theoretical analysis (Nisbett & Ross, 1980); and it has been widely used, especially in advertising (Aaker, 1975; Ogilvy, 1963). In response to initial evidence suggesting no pervasive vividness effect, several different versions of the effect were extensively explored, including whether or not vividness effects occur only after a delay, whether the effect occurs only for certain kinds of judgments, and whether differential attention is required to obtain the effect (see Taylor & Thompson, 1982, for a review). As such, the vividness effect may be one of the best scrutinized hypotheses in social psychology. Moreover, even though evidence for any form of the vividness effect is meager, discussion sections of articles that have failed to find vividness effects frequently provide idiosyncratic reasons for that failure and conclude that the effect nonetheless exists.

The present studies were spawned in part by years of frustrating efforts to identify the proper form of the vividness effect. If there is a differential impact of vividly presented material on judgments, it is elusive indeed. It may be very weak or require particular conditions to be evident, if it exists at all. In any case, its existence appears to be very out of proportion to faith in its existence. The studies presented suggest that belief in the power of vividness may stem less from its actual effects than from an illusion. As Nisbett and Wilson (1977) have noted, people are often unable to report correctly on the sources of information that influence their attitudes and instead draw on shared theories of persuasion to infer what factors may have influenced their attitudes and beliefs. Consistent with this, our data suggest first, that people believe vividly presented information to be inherently more persuasive and second, that this belief leads them to infer that others will be persuaded following exposure to a vivid communication, regardless of their own reactions. The strongest vividness

effect, then, may be its impact on people's theories about persuasion and not its persuasive impact.

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