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GROUP NORMS AND DISSONANCE REDUCTION IN BELIEF, BEHAVIOR, AND JUDGMENT

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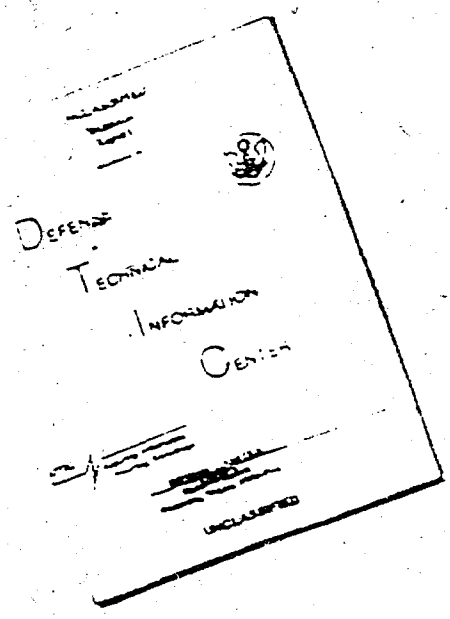

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GROUP NORMS AND DISSONACE REDUCTION IN BELIEF, BEHAVIOR, AND JUDGMENT[1]

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ABSTRACT

Forty-four female subjects met in groups of four, each in a separate booth, and were asked to report whether or not they received "ESP images" which were presumably projected by a "sender" in another room. Half the Ss, in a control condition, were unaware of the responses of others. For the others, in the experimental condition, a device similar to that utilized by Deutsch and Gerard gave each subject the impression that the other three Ss had received images on 23 of 30 trials. It was found that, particularly, in the control condition, reported reception of ESP images was a function of one's initial belief in ESP. Subjects in the experimental condition reported more receptions than those in the control condition. The situation reduced belief in ESP, but this reduction was minimized in the experimental condition; the subjects in the experimental condition who reported reception increased their belief in ESP. On six non-unanimous trials in the experimental condition, reported reception increased with each trial. The experimental situation was analyzed in terms of a theory of dissonance reduction.

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Various investigators have recently pointed out the tendencies toward consistency or consonnace which individual's experience (Festinger, 1957; Heider, 1958; Newcomb, 1953; Osgood and Tannenbaum, 1955). Ordinarily the diverse aspects of our life space are remarkably consistent with one another; our behavior is quite in line with what we believe; both our beliefs and behaviors are

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1. A preliminary report of this experiment was presented at the annual meetings of the Western Psychological Association in San Jose, California, April 1960.

2. Now at University of Nevada.

are generally consonant with our perceptions in a specific situation. It is the situations which lead to inconsistency, and the results of such inconsistency in which we are particularly interested here.

In this report, we will describe an experiment which was stimulated by the Asch experiment and by a later study by Deutsch and Gerard (4). In our experimental situation, we again place the subject in a situation wherein his perception and judgment will likely be in sharp contrast with the supposed reports of three other subjects in his group. As in the previously mentioned studies, the group of three responds first, and then it is the subject's turn to respond. Again, we expected that a number of the subjects would conform to the statements of the group much more often than their responses would conform in a control condition. In our experiment, however, we have introduced another variable--the belief system to which the responses would be related. Thus, we have placed our subjects in a situation where they are told that a "sender" will attempt to send ESP messages to them. The messages are to appear on a blank card, and, presumably, no image would appear under ordinary circumstances. In some conditions, the subject finds that the other members of his group report receiving the impressions; in other conditions, the responses of other group members are unknown to him. The additional measure is that of belief and change in belief in ESP. Presumably, the subject in the control condition would be more likely to report reception of ESP messages if he believes in ESP than if he does not. Experimental Ss would be more likely to report reception than control Ss. Furthermore, there would be a tendency for subjects to reduce dissonance by believing more in ESP after finding that others report reception, and this should be especially so if they themselves have reported reception of ESP images.

We shall develop some of the theoretical discussion later, but let us first examine the experimental procedures themselves.

METHOD

Subjects

Data reported in this paper will be based on 44 female undergraduate subjects, recruited from introductory psychology classes. The subjects took part in groups of four. They were recruited from different sections of the psychology course, and care was taken that the subjects in each group of four did not know one another.

The experimental setting

When each subject arrived, she was met by two male experimenters, and was seated at one of four experimental booths. The four booths were approximately 56" X 87", side-by-side, and with the opening to each closed somewhat. The subjects were each seated facing an adjacent wall, such that she could not see the other subjects, but could see the experimenter. On the table in front of each subject there was a set of three piano keys. The left key was labeled "receive", the right key was labeled "not receive". The center key was taped down, and not utilized in this experiment. There was also a light box on each table, with twelve small red lights on it, three columns and four rows. The left column was labeled "receive" and the right "not receive", while the center column was unlabeled. The four rows were labeled "Subject #1, Subject #2, Subject #3, and Subject #4."[1]

On the wall in front of each subject there was a white cardboard 8½" X 11", upon which the ESP images would presumably appear.

Pre-measure of belief in ESP

The purpose of the experiment was presented to the subjects as

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1. We are indebted to Dr. Harold B. Gerard of Bell Telephone Laboratories for his suggestions in the construction of this apparatus, to Mr. Lon Davis, Department of Psychology, University of California, Los Angeles, who actually constructed the apparatus, and to R. E. Kudlick of Bell Telephone Laboratories, whose plans (Kudlick, 1957) were utilized, with modifications, by Mr. Davis.

being an attempt to learn more about ESP--"the transmission of impressions or messages between people by means other than the usual sense organs." Before the experiment continued, however, the subjects were asked to fill out a questionnaire form. The form was a modification of Osgood's semantic differential, the AB Scales, which were developed by Fishbein and Raven (1959) to measure attitudes and beliefs. This instrument consists of twenty polar adjectives, five of which (the B-scale) specifically measure belief in the existence of an object (impossible-possible; false-true; non-existent-existent; improbable-probable; unlikely-likely). Since each polar pair had a seven-point scale, a rated concept would give a belief score ranging from 5 (complete disbelief in existence of the concept) to 35 (complete belief in its existence). All subjects rated ESP on this scale. They were then asked to rate "racial prejudice" in order to reduce their recall of responses to ESP for later post-test.

While "racial prejudice" was being rated on the AB Scales, the ratings on ESP were tabulated, and the group assigned to one of the two experimental conditions such that the mean pre-belief scores for the conditions would be as similar as possible.

The experimental situation

When the scales had been collected, the purpose of the experiment was further elaborated:

". . .we are interested in finding out a bit more about E.S.P. The laboratory experiments which have been run on it so far are controversial. Is there something to it? Well, we don't know, so we want to try it."

"There is someone in the other room who claims to be a 'sender'. He is going to try to send the word 'Contemporary' in red to you. (Shows sample which is a red tracing of the word from the cover of the journal, Contemporary Psychology.) He is staring at a card like this. He will try to project or transmit the image of this word onto the white card in front of each of you. Periodically a bell will sound. While the bell is sounding simultaneously, in the other room, he will concentrate on the word 'Contemporary' and try to send it to you. . .If you get a transmission, then you are to press down on the piano key in front of you (on the left) marked 'RECEIVE'. If

you get no impression from the sender, then you will press down the piano key, on the right, marked 'NOT RECEIVE'."

Subjects were also told that we wished to record their responses in order from our central panel. Thus they should respond in order, Subject #1, Subject #2, Subject #3, and Subject #4. In order to determine the order of response, subjects drew lots. Each subject found that he had chosen a card which designated him as subject #4--but he believed that other three were #1, #2, and #3. Each subject could tell when the others had presumably responded by watching his panel board. In fact, the responses from the supposed first three subjects were introduced from central controls by the experimenter; the actual responses of the four subjects lit up on the central control panel and were recorded by the experimenters.

All subjects were then given thirty trials, each of which consisted of a ten-second buzzer sound, during which the message was presumably being sent, and twenty-second silent interval, during which subjects could indicate their responses. They were instructed to respond as soon as possible after the preceding subject had responded.

It should be noted at this point that though each subject in the experimental condition knew that his responses would be indicated to the others, it was emphasized that the identity of his response would be unknown and thus private--none of the others would know who Subject #4 was.

Variation in Group Norms

Group pressure was manipulated in a manner similar to that utilized by Asch (1956), and as mechanized by Deutsch and Gerard (1955). A similar device has been used by Crutchfield (1955).

In the experimental condition, 23 of the 30 trials indicated to each of the subjects that all of the other three subjects had received an ESP image--the "Receive" lights lit up for Subjects #1, #2, and #3 on the panel. On trials 1, 2, 6, 15, 18, and 22, two of the pseudosubjects' lights indicated "receive", while one indicated "not receive". On trial number 13, no subject lights indicated "receive."

In the control condition, the responses of the other subjects

were not made known to the critical subjects. Only the center light lit up, to indicate that a response had been made by the presumed subject, but the nature of the response was not indicated.

In each case, the actual subjects responded soon after the three preceding lights were lit up, and each subject's own response was indicated both on his panel as #4 and on the central panel of the experimenter.

Post-measure of Belief and Questionnaire

After the thirty trials had been completed, subjects were again asked to rate ESP on the AB Scales, to get a measure of belief after the experiment. A questionnaire was then given the subjects on which we attempted to get additional information regarding the experiment, and the effectiveness of the experimental variables. With the questionnaires completed the subjects were interviewed as a group, and an explanation of the experiment was given to them.

RESULTS

We began our experiment with two specific expectations: (1) that group pressure would increase the extent of ESP responses, and (2) that as the result of group pressure on ESP response, there would also be influence on the underlying belief. Upon examining our data, other points of interest developed, which we will also examine here.

Group norms and reported reception of ESP images

Table 1 indicates that more subjects reported receiving images in the experimental condition than in the control. Eleven of the twenty-two subjects in the experimental condition reported reception while only seven reported reception in the control condition. This result in itself is not significant, however, the total distribution of responses is significant at the .03 level by tau test (Kendall, 1948). The difference between conditions is even more clear in Figure 1, which shows a number of reported receptions of successive trials. We note that on every trial, a greater number of receptions were reported by the experimental subjects. It is also of interest to note that those subjects in the experimental condition who reported reception, reported a considerable number, averaging 14.6 receptions each. "Receivers" in the control condition reported many fewer, averaging 6.7 each, with four of the seven reporting three receptions or less.

Reported reception as a function of prior belief in ESP

The fact that seven subjects reported reception of images even in the control condition led us to consider the relationship between reported reception and belief in ESP. If a subject believed in extra-sensory-perception, she might be especially likely to report such reception even in the absence of a group norm supporting such reports. The average belief scores on the pre-test for both the experimental and control groups was 26.1. (See Table 2) The belief scale ranged from 5-35, with a score of "5" indicating complete disbelief in ESP and "20" being the neutral point. Thus it appeared that our average subject tended to believe considerably in ESP.

In Table 2a, we see that the "receivers" did, in fact, believe more strongly in ESP at the beginning of the experiment than did the non-receivers.

TABLE 1

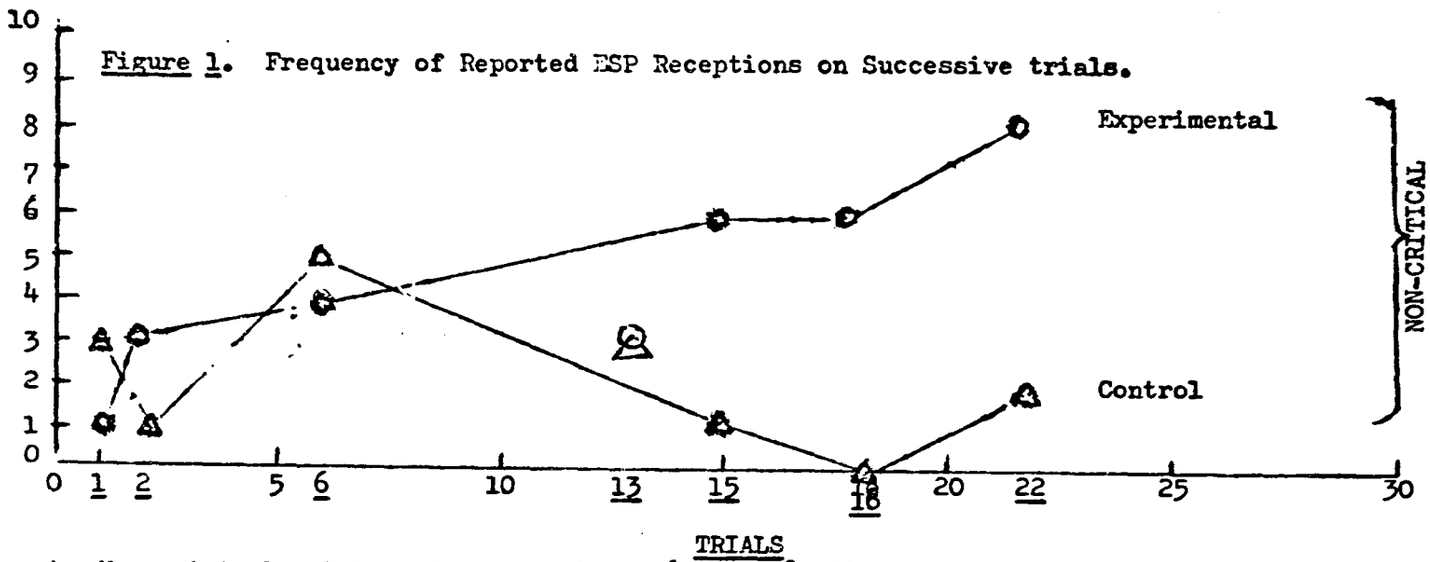
DISTRIBUTION OF REPORTED RECEPTIONS
OF ESP IMAGES BY SUBJECTS IN EXPERIMENTAL AND CONTROL CONDITIONS
FOR THE 23 CRITICAL TRIALS[1]

Number of "receives"	Control Condition (N=22)	Experimental Condition (N=22)
0	15	11
1	2	0
3	2	0
6	0	1
8	1	0
11	0	1
12	1	0
13	0	2
14	0	2
15	0	1
16	0	1
18	0	1
19	1	0
21	0	2
Total "receives"	7	11

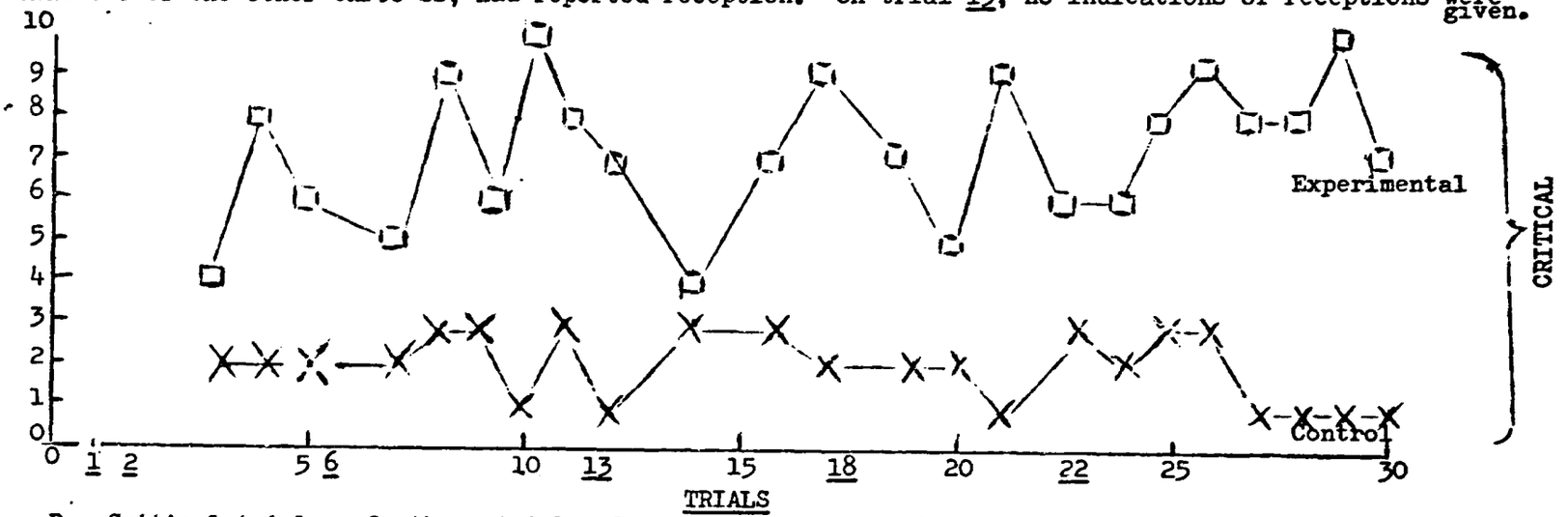
Difference in distributions is significant at .03 level by tau-test (Kendall, 1948).

1. Critical trials are defined as those in which experimental subjects received indication that all other Ss reported reception.

Figure 1. Frequency of Reported ESP Receptions on Successive trials.



A. Non-critical trials: On trials 1, 2, 6, 15, 18, 22, subjects were given indication that two of the other three Ss, had reported reception. On trial 13, no indications of receptions were given.



B. Critical trials: On these trials, Ss were given indication that all three of the other Ss reported reception,

TABLE 2

MEAN BELIEF IN ESP IN PRE- AND POST-EXPERIMENTAL MEASURES

a. Pre-test[1]

	Receive	Not Receive	Total
Experimental	28.5 (11)[2]	23.6 (11)	26.1 (22)
Control	31.3 (7)	23.6 (15)	26.1 (22)

b. Post-test

Experimental	31.1	20.4	25.8
Control	24.1	19.5	21.0

c. Change from Pre-test to Post-test

Experimental	+2.5	-3.3	- .3
Control	-7.1	-4.1	-5.1

d. Frequency of subjects changing beliefs toward greater belief in ESP (+), toward less belief in ESP (-), and not changing (o)

	+	o	-	+	o	-	+	o	-
Experimental	7	1	3	1	2	8	8	3	11
Control	0	0	7	3	1	11	3	1	18
Total	7	1	10	4	3	19	11	4	29

1. Belief scores could range from 5 to 35, with 35 indicating a strong belief and 20 being the mid-point. In change scores, negative scores indicate reduced belief in ESP.

2. Number of subjects, same for each part of table.

This difference is significant, however, only for the control subjects ($p = .05$, F-test). In the experimental conditions, the effect of the group norm was to increase the likelihood of a "reception" response even when this was contrary to initial belief in ESP. Six of the seven "receivers" in the control condition indicated that they had pushed the "receive" button by mistake, four of these saying that they had made a physical error, e.g., hit the wrong button, two saying that they had responded to mistaken impressions. (See appendix) Yet it is interesting that these were also the subjects with very high beliefs in ESP. Four of eleven "receivers" in the experimental condition said that they had indicated reception by mistake, but none of these explained it as a physical error--all suggested that they may have had mistaken impressions.

The effects of group norms upon belief in ESP

We note in Table 2 that the net result of the experiment was to reduce belief in ESP. After thirty trials during which very few images "appeared" to the subjects, and in a situation which was presumably to be a test of extra-sensory-perception, the belief in ESP reduced for the majority of the subjects. Twenty-nine of the 44 subjects reduced their belief in ESP, while only eleven subjects increased their belief in ESP. The mean belief in ESP reduced by 2.7 points on the scale.

It is to be noted, however, that most of the reduction in belief occurred in the control conditions. The control Ss reduced their beliefs, on the average, 5.1 points, while the experimental subjects reduced their belief by a negligible amount, .3 points. This difference was significant at less than the .05 level (F-test). Eleven subjects in the experimental condition reduced their belief, while eighteen subjects in the control group did so. ($p = .02$, by chi-square with 1 df) We initially predicted that as the result of group reports of reception, beliefs in ESP would be changed positively. This prediction of a group effect was supported, but the specific prediction did not take into account the overall negative shift in belief as the result of the failure to receive. This effect was counterbalanced by the group effect.

The major positive change in belief occurred among those subjects

who were in the experimental group, and who indicated reception. Seven of the eleven subjects who reported reception in the experimental condition increased their belief in ESP, and only three changed in the negative direction. Only four subjects of the other thirty-three tested changed their beliefs positively. Thus, it appears that a group norm indicating reception, coupled with an individual response in conformity with the group, is most likely to lead to increased belief in ESP.

One might question why the "receivers" in the control group did not increase their belief in ESP--all seven of these receivers changed their belief in the opposite direction. In order to understand this, we must first observe that these were the individuals who initially had very high belief in ESP, averaging 31.3 on a scale where the highest possible belief was 35. Furthermore, these seven subjects tended to report very few receptions--four of them reported three or less on critical trials. In informal interviews, these subjects reported that they had come into the experiment very much expecting support for a belief in ESP which they already had. Though they thought that they may have received something, they found such receptions quite few and far between. As noted earlier, six of these seven "receivers" in the control condition reported that they had pushed the "receive" button while not receiving an impression--only four of the eleven subjects who "received" in the experimental condition reported such a discrepancy. (See appendix) Thus the strong pro-ESP belief of the "receivers" in the control condition was brought seriously into question. They tried to receive an impression in order to maintain consistency between their beliefs and the test situation, but the non-reception was so unambiguous that they tended to re-interpret their earlier responses as errors.

Data parallel to that discussed above may also be seen in the subject's estimates of their changes in belief, in response to the questions: "To what extent has your belief in ESP changed since you entered this room? Do you believe more or less strongly in its existence?" Subjects responded by checking a point on a line whose extremes on which points were labeled, "Believe much more strongly

that ESP does not exist" through "no change" to "Believe much more strongly that ESP does exist." For scoring purposes, the line was divided into five sections, with degrees of "decrease", a "no change" segment, and two degrees of "increase". (See Table 3)

The data are consistent with that from belief measures. Subjects in the control condition believed less in ESP; subjects in the experimental condition changing less. Seven of the eleven subjects in the experimental subjects who reported reception increased their belief in ESP.

As a result of group influence on belief in ESP, it appears that subjects in the experimental group were more subject to influence after progressive trials. The trend is especially clear on trials 1, 2, 6, 15, 18, and 22 where Ss in the experimental condition were given the impression that only two of the other three were receiving impressions. (See Figure 1) The number of experimental subjects reporting impressions on these trials rose steadily: 1, 3, 4, 6, 6, 8. The correlation between order of trial and number of reported receptions was highly significant. (tau = .97, $p < .001$) Comparable figures for the control Ss were: 3, 1, 5, 1, 0, 2. The correlation between trial number and number of responses was slightly negative for control Ss and not significant. (tau = -.28) Four subjects in the experimental group reported receptions on the first three non-unanimous trials; ten reported receptions on the last three non-unanimous trials. The figures for the control condition on corresponding trials were six and two. Thus it appears that subjects in the experimental group, who were uninfluenced by a non-unanimous majority early in the experiment, became much more influenced on successive trials. On Trial #13, subjects in the experimental condition were informed that none of the other subjects indicated reception. Three subjects in the experimental group reported reception on that trial; three subjects in the control group also reported reception.

An interesting additional point of interest: Subjects were asked in the post-session questionnaire, "What percentage of students such as yourself would you think would say that they had received a transmission when in fact they had not or that they had not

TABLE 3

FREQUENCY OF SUBJECT ESTIMATES OF CHANGE IN BELIEF IN ESP

	Believe more strongly ESP does not exist		No Change	Believe more strongly ESP does exist	
	1	2	3	4	5
Exp't'l "Receivers"	0	0	4	4	3
Exp't'l "Non-Receivers"	2	0	9	0	0
Control "Receivers"	1	4	2	0	0
Control "Non-Receivers"	1	4	10	0	0
Exp't'l Total	2	0	13	4	3
Control Total	2	8	12	0	0

received an impression when in fact they had?" The mean response for the subjects in the experimental condition was 50.4%, while the mean for the control group was 25.9%. This difference was significant at the .001 level (by chi-square). Comparing receivers and non-receivers on this question did not reveal significant differences. As indicated in interviews (see appendix), some of the receivers in the experimental condition questioned the validity of their own responses, while the non-receivers presumably questioned the responses of the other subjects who were presumably receiving transmissions.

DISCUSSION

Cognitive Elements

In order to understand this situation in terms of dissonance and consonance between pairs of elements, let us examine what the important elements in this study are likely to be. These might be:

(1) The image which the subject believed that she saw. Did she see the word "Contemporary" on the cardboard, or did she not? In pre-testing with other supposedly transmitted images, such as red circles or stars, a number of subjects reported such reception, and were able to give quite vivid descriptions of images which they believed that they saw. In this study, we selected the word "Contemporary" because it appeared, from pre-testing, that this image would ordinarily not be reported. Yet, studies of suggestibility have indicated that subjects can be made to believe that they have observed quite complex stimuli. Our "receivers" sometimes gave quite involved descriptions of the images which they received. (See appendix)

(2) The knowledge of the group response. Did the group report receiving an image? This would, of course, only be relevant here in the experimental condition.

(3) The judgment as to whether an image was in fact transmitted. A subject could presumably believe that an image had been transmitted or projected even if she did not believe that she had actually received it. Of course, the reverse would be unlikely--that she believe that an image had not been transmitted, but that she had seen something.

(4) The subject's belief in ESP. Is it possible, or is it impossible?

(5) The subject's knowledge about her own prior responses. Had she previously indicated reception or non-reception?

Having listed these elements we might consider them in combination, in terms of whether they are consonant or dissonant with one another, and to examine to the means by which dissonance might be minimized.

In the experimental condition, the image to which the

subject was exposed, the blank cardboard, was dissonant with the knowledge that her three group members received an image. A number of the subjects were able to somehow restructure the stimulus so as to believe that they actually had perceived an image. This, in effect, reduced their dissonance, assuming that they also believed in ESP. If they did not believe strongly in ESP, then the changed element corresponding to the "image," though consonant with the element corresponding to the group response, would be dissonant with their skepticism with regard to ESP. This might then be reduced by increasing their belief in ESP.

Dissonance in this case, might also be reduced by rejecting the group, or questioning its integrity. The responses to the question regarding the integrity of subjects in such a situation shows that suspicion of the validity of responses is in fact greater in the experimental condition. In a later experiment, we show that such a dissonance reducing device is further enhanced when the others are presented as non-reliable perceivers. When the others are peers, or superior perceivers, it is more difficult to question their integrity, and dissonance must be reduced in other ways.

In the control condition, the group response was not available, and thus did not serve as a source of cognitive dissonance.

The subject's belief in ESP would be another element which could result in dissonance with the image. In the control conditions, a subject who believed in ESP might reduce dissonance by actually perceiving an image, but this is somewhat more difficult in a situation such as this, where an image is supposed to appear on a blank card. Ss in the control condition, thus showed an especially great reduction in belief in ESP. In the experimental, a subject who reduced belief in ESP so as to make her belief consonant with her perception of the image would then have placed both her belief and the lack of an image into dissonance with her knowledge of the group response. Again, the group might be rejected as not competent, and the belief also reduced. Or an additional element might be brought into play--

that regarding her judgment of whether an image was actually transmitted. If she judges that images did appear, to the group, this would then be consonant with both group response and her belief in ESP, but all of these would then be dissonant with her image. The pressure to "conjure" an image is even heightened, or she could reduce dissonance by somehow reconciling the fact that ESP does exist, and an image was transmitted, but she did not receive it. She could do this by adding still additional elements--she docsn't have the "gift", thus whether she sees an image is not relevant to the existance of ESP.

One of the subjects (see appendix) reduced dissonance by questioning this experimental situation as an adequate test of ESP ability.

The subject's knowledge of her own prior responses also become an element which might be consonant or dissonant. Once the subject has received an image, or reported receiving same, then she has additonal basis for believing in ESP. She further might be expected to see it again in later trials. We do see, in Figure 1. this tendency for subjects in the experimental condtion to increase their belief and their "reception" responses on successive trials. On the other hand, without group support, the subjects in the control condition find that the non-appearance of the ESP image becomes less and less ambiguous on successive trials. They find that they cannot reconcile "reception" responses any longer and reduce reported receptions. They must now reduce dissonance between their rejection of the ESP phenomenon and their knowledge that they had previously indicated reception. The device which six of our seven receivers in the control condition used was, essentially, to deny the validity of their earlier responses, and to say that these responses were mistaken. ("I pushed the wrong key by mistake.")

This discussion may illustrate the ways in which a consideration of pairs of cognitive elements in consonance or dissonance, and an analysis in terms of a successive dissonance-reducing process may help us in understanding how individual's beliefs and behaviors may be influenced in a situation such as

that which we describe. It remains to specify these more carefully and to predict when one means of dissonance reduction would obtain rather than another. We will attempt to deal with these problems in later experiments.

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APPENDIX

RESPONSES TO OPEN-ENDED QUESTIONS ON QUESTIONNAIRE

All of the subjects who responded to open-ended questions 7 and 8 are recorded here. The questions were as follows:

Q. 7. Did you get an impression corresponding to the word? ___yes ___no
(if yes) Could you describe that impression below?

Q. 8. Did you press the "receive" key at any time when you did not receive an impression of the word from the "sender"? ___yes ___no
If yes, please elaborate.

Subjects in the Control Condition

C-6-1: Q. 7: Yes. I observed a large letter C on the paper, however, the other letters of the word were not visible at all.

C-12-1: Q. 8: Yes. I pressed it once by mistake.

C-13-3: Q. 8: Yes. The first response was a mistake; a mistaken key.

C-14-2: Q. 7: Yes. The impression was one in which the word seemed to appear on the white card in faint red letters. Since I was aware of its supposed transmission, it seemed to keep appearing on the card.

Q. 8: Yes. At one or two instances I thought I received an impression but in all honesty I couldn't be absolutely positive. I pressed the RECEIVE KEY while giving the situation the benefit of the doubt.

C-14-4: Q. 7: Yes. Red letters outlined in black on white background.

Q. 8: Yes. Pressed wrong key 3 times.

C-15-3: Q. 7: Yes. I did not see the word on the card but I had a strong feeling of its presence.

Q. 8: The first time I pressed the button by mistake. One other time I pressed it when I only thought I got an impression, but was not sure.

C-15-4: Q. 7. Yes. I felt the sender was a young person. I could see him trying very hard to send the message to the subjects.

Q. 8: Yes I tried so hard to receive the message that I thought I had. After pressing the button, I realized I had no(sic) received the word at all.

Subjects in the Experimental Condition:

X-1-3: Q. 8: Yes. Sometimes it was hard to tell whether a weak impression or no impression was made.

X-1-4: Q. 7: Yes. (?) blue - dots in "contemp" design and obscure lines.

Q. 8: No. I perhaps should have responded several times since I did receive impressions of contemporary "design" on the white card--I did not know however whether this was from looking at red lights or not. (Ed.: Lights on panel board were red.)

X-3-1: Q.7. Yes. I felt as if waves were coming into my head from the back and appearing inside of eyes on to card.

Q. 8: Yes. I was somewhat influenced by the three lights receiving, since I was the fourth subject.

X-3-2: Q. 7: Yes. appeared very similar to what I saw on card at times, also appeared as word but not like it appeared on the original card.

Q. 8: Yes. Not quite sure of complete impression of word, but I thought I saw an impression.

X-5-2: Q. 7: Yes. Since I saw the word before, I had a set to (see) that word and so the ringing of the bell called upon my imagination to see or hear that word. But it was called from my imagination and didn't originate with the "sender".

X-5-4: Q. 7: Yes.

X-8-3: Q. 7: Yes. Sometimes I could see the word that you showed us, but ¼ of the time I received nothing.

Q. 8: Yes. I guess it was because I was influenced by those before me.

X-10-2: Q. 7: Yes. Only a darker band in the center of the card, although this might have been brought about my attention to this section.

X-10-3: Q. 7: Yes. Red line in center of paper outlined in black as the word was closely associated with color.

X-10-4: Q. 7. No.
Q. 8. No. (I still believe strongly that ESP does exist,

however this test proved to be a poor test for this; I believe that you must be unaware of the situation. and you must have no knowledge that you are "about to receive a message". This only aids as a hindrance (sic) If you know you are going to receive a message, you are ready for it and most likely will imagine a message when it might not exist, or you may develop a barrier against seeing one.

X-11-1: Q.7: Yes. Impressions related to the beat generation-- they're thought of as far as I am concerned as contemporary.

X-11-4: Q.7: Yes. The red word contemporary seemed to be written out.