

THE EFFECT OF EXPECTATIONS ON SUSCEPTIBILITY TO EMOTIONAL
CONTAGION

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Running head: EXPECTATIONS AND EMOTIONAL CONTAGION

Abstract

This experiment explored two questions: Do people tend to "catch" other people's emotions? If so, what effect do subject's expectations have on their tendency to catch the emotions of others? Do people see what they expect to see or do they simply respond to the emotions the target person is actually expressing? To answer these questions, college students were led to expect that they would be viewing target persons who were happy or sad, or they were given no information at all. Next, subjects were shown a series of happy or sad target faces. Finally, subjects were asked a series of self-report questions to determine what emotions they felt as they observed these faces. Judges also rated how happy, sad, and confused the faces of the subjects appeared to be while they observed the targets' faces. As predicted, subjects tended to catch the target's emotions even in this carefully controlled laboratory setting. There was no evidence, however, that subjects' expectations altered their susceptibility to emotional contagion. All subjects seemed equally prone to experience and to mimic the emotions the expressions on the targets' faces.

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A case history: A clinical psychologist greets her first client of the day. She is feeling cheerful, energetic, ready to go. She listens attentively as her client begins to recite a litany of problems. As time goes by, however, she realizes that her mind is wandering. She stifles a yawn. She is exhausted. Shocked at her own inattention, she tries to figure out what could be going on. At first, she focuses on herself. Did she get enough sleep last night? Maybe she's suffering from burnout. None of these explanations seem plausible. Then she takes a second look at her client. Is he depressed? Is it catching? It doesn't seem likely. He looks happy enough, rattling on. So she checks. Bingo. He breaks into tears and begins to talk about his sadness and feelings of hopelessness.

Psychotherapists have long contended that under certain conditions, clinicians can use their own emotional reactions to gauge what their clients are feeling (Reik, 1948). Jung (1968) observed:

Emotions are contagious In psychotherapy, even if the doctor is entirely detached from the emotional contents of the patient, the very fact that the patient has emotions has an effect upon him [the doctor]. And it is a great mistake if the doctor thinks he can lift himself out of it. He cannot do more than become conscious of the fact that he is affected. (p. 155).

The notion that people can monitor their own emotional reactions to gain insight into the feelings of others is an intriguing one. But most people would be hesitant to rely totally on such information. Is there any evidence that such emotional contagion even exists? (Has the phenomenon been demonstrated under tightly controlled laboratory conditions?) How is a therapist to know if the feelings she experiences are hers or his? (Perhaps the therapist was depressed.) To what extent did the therapists' expectations of what her client was likely to be feeling shape her perception of what he was feeling? (Perhaps if she had asked him if he was "nervous" or "in love" or "lonely", he would have been equally willing to admit to those feelings.) In real life, how does one partial out the variance. How does one decide whether one feels as one does because of the events in one's own life or because one is catching the emotions of another? This study was designed to begin to explore these questions.

Hypothesis #1: People tend to catch the emotions of others, even in carefully controlled laboratory settings.

Fischer, Shaver, and Carnochan (1990) argue that emotions are:

"organised, meaningful, generally adaptive action systems. . . [they] are complex functional wholes including appraisals or

appreciations, patterned physiological processes, action tendencies, subjective feelings, expressions, and instrumental behaviors. . . none of these features is necessary for a particular instance of emotion. Emotions fit into families, within which all members share a family resemblance but no universal set of features. (p. 84-85).

Theorists such as Candland (1977) and Berscheid (1979) argue that emotional stimuli trigger the cognitive, physiological, and behavioral aspects of emotion almost simultaneously. The various aspects of emotion are processed in different portions of the brain (Lewicki, 1986; MacLean, 1975; Papez, 1937).

Hatfield and Rapson (1987) define emotional contagion as:

A tendency to mimic another person's emotional experience/expressions (his or her subjective feelings, emotional appraisals, expressions, patterned physiological processes, action tendencies, and instrumental behaviours) and thus to experience/express the same emotions oneself. (p. 1).

Logically, people might catch others' emotions in several ways: In part, conscious processes could mediate such contagion. For example, as subjects listen to a target describe his emotional experiences, they might remember times they felt much the same way and shared much the same experiences. Such conscious reveries could spark a similar emotional response. More often, the process is probably an automatic, non-conscious one. In conversation, people automatically and continuously mimic (or are in synchrony with) the facial expressions, voices, postures, and behaviors of others (Bavelas, Black, Lemery, & Mullett, 1987; Biernieri, et al., 1988; Warner, 1988). This may be a non-conscious reaction (O'Toole & Dubin, 1968). Theorists have speculated that people's emotional experience may be influenced by an awareness of either: (1) the CNS commands that direct such

mimicry/ synchrony in the first place; or (2) the afferent feedback from such facial, postural, or verbal mimicry/synchrony (Laird, 1984; Tomkins, 1963; Izard, 1971). For a review of the link between emotion and facial feedback, see Adelman and Zajonc (1989). Ekman (cited in Schmeck, 1983) points out that this may be one reason why smiling faces at a party or grief at a time of mourning are infectious. "The perception of another face is not just an information transfer," contends Ekman, "but a very literal means by which we feel the sensations that the other feels." (p. 1). It is such mimicry/synchrony in which we are primarily interested and which we think is primarily responsible for emotional contagion.

Regardless of why such contagion might occur, researchers from a range of disciplines have described phenomena which suggest that emotional contagion does occur.

1. Developmental research. Child psychologists find that, from the start, both parents and children tend to catch one another's emotions (Frodi, Lamb, Leavitt, Donovan, Neff, & Sherry, 1978; Hoffman, 1987; Reissland, 1988; Thompson, 1987). Shortly after birth, infants have a tendency to mimic the facial expressions of others (Meltzoff, 1988; Reissland, 1985.) Haviland and Lelwica (1987) found that ten week old infants could and would imitate their mother's facial expressions of happiness, sadness, and anger.

Parents seem equally prone to catch and mimic the emotions of their newborns (Thompson, 1987). Although mothers are most likely to catch and mimic their infants' positive emotions (interest, enjoyment, and surprise), they also mimic the infants' negative emotions (pain, sadness, and anger) to some extent (Malatesta & Haviland, 1982). Frodi and her colleagues (1978) found that parents who were asked to observe a sad-angry newborn reported

feeling more "annoyed, irritated, distressed, disturbed, indifferent, and less attentive and less happy" than those who viewed a smiling infant. Their diastolic blood pressures and skin conductance levels paralleled these reports. Together, such observations suggest that parents and children might be predisposed to take on one another's emotional reactions.

2. Clinical research. As we observed earlier, clinicians have often observed that psychotherapists tend to catch their clients' emotions. They point out that such "transference" reactions could be used in diagnosis and treatment (Jung, 1968; Reik, 1948; Tansey & Burke, 1989).

Clinical researchers have also collected considerable evidence as to the impact that manic, depressed, anxious, and angry people make on those around them. In some of these studies clear evidence of contagion may be found. For example, Howes, Hokanson, and Lowenstein (1985) set out to find out how people react to depressed men and women. They assessed college roommates on the Beck Depression Inventory from the start of the semester until three months later. They found that those students who were assigned to room with a depressed roommate became increasingly depressed over time.

3. Dramatic theorists. Theorists such as Stanislavski (Moore, 1960) have observed that actors generally catch the emotions they portray. Stanislavski speculated as to how this process works. The emotional experiences of people are stored in an emotional memory. There they remain as distilled essences of emotion. "Emotional memory stores our past experiences; to relive them, actors must execute indispensable, logical physical actions in the given circumstances. There are as many nuances of emotions as there are physical actions" (p. 52-53). People relive their own

emotions, then, anytime they engage in a variety of small actions associated with those emotions.

4. Social-psychological research. Wheeler (1966) attempted to distinguish "true" contagion (the rapid transfer of emotion from one person to others in the group) from other types of social influence--such as conformity, imitation and response to social pressure, and social facilitation. Wheeler took the position that contagion was distinctly different from the other forms of influence in that it required a pre-existing approach-avoidance conflict. Presumably person X was conflicted between the instigation to perform Bn (say, to get angry and yell at a noisy neighbor) and the internal restraints against the performance of Bn. When X saw Person Y yell at the inconsiderate neighbor, X was likely to quickly catch Y's emotion and imitate Y's hostile actions. Wheeler's model is quite different from our own. We view contagion as a normal, continuing part of a social exchange.

Nonetheless, Wheeler and other social psychologists have found that group members do seem particularly susceptible to catching the laughter (Leventhal & Mace, 1970), euphoria and anger (Schachter & Singer, 1962) or fear, and panicky behavior of other group members (Kerckhoff & Back, 1968).

Thus, psychologists and others have observed phenomena which appear to meet the criteria of emotional contagion. The first purpose of the present study was to demonstrate the existence of this process in a carefully controlled laboratory setting.

Hypothesis #2: People's expectations will affect their susceptibility to emotional contagion.

In the case history with which this paper began, the question was raised as to whether or not the attitudes, beliefs, and expectations of a therapist might affect her susceptibility to emotional contagion. This is a critically important question. If, for example, therapists' cognitive schemas have a major impact both on how they consciously interpret the emotional expressions of their clients and their own emotional reactions, therapists would not really be able to use their own emotional reactions to detect clients' "hidden" emotional states. If on the other hand, therapists' expectations effect only their perceptions of what the clients should be feeling, but the therapists' emotional and imitative/synchronous responses to clients' faces, tones, or postures lead them to quite a different conclusion, therapists could gain a great deal of information about others' hidden emotional lives by monitoring their own emotional responses.

Social cognition research has shown that people do tend to see what they expect to see (Goldfried & Robins, 1983; Hirt, 1990; Markus, 1977; Swann & Read, 1981; Wilson, 1985). The beliefs of people have been found to influence the type of information they attend to and actually remember (Snyder, 1984; Jelalian & Miller, 1984). People tend to carefully process information that is consistent with their beliefs and ignore information that is inconsistent. They have been found to ignore inconsistent information, even if it is strongly disconfirmatory (Jelalian & Miller, 1984).

Thus, Hypothesis 2 proposes that people's expectations should effect their susceptibility to emotional contagion. People should experience the most contagion when they expect to see what they do see. They should experience the least contagion when their expectations are very different from the reality.

Method

Design

This study involved a 3 (Subject's expectations: Targets will be happy, sad; no expectations) x 2 (Reality: Targets' faces are happy or sad) x 2 (Type of measurement: self report or judges' ratings of facial expression.) The first two factors (Expectations and Reality) are between-subject factors; the third factor (Type of measurement) is a within-subject factor.

Subjects

One hundred and six University of Hawaii students were recruited from an introductory psychology class. Forty of them were interviewed in a pretest of the experimental stimuli. Sixty six of them were interviewed in the experiment proper. They were given two bonus points in return for their participation.

Procedure

When subjects arrived at the laboratory, they were ushered into a small experimental cubicle and seated at a table. A television monitor was placed on the table in front of them. Subjects were told that this experiment was designed to study men and womens' reactions to a series of videotapes.

Manipulating expectations. If subjects had been randomly assigned to Conditions 1-4, the assistant² handed them a sheet of paper, purporting to tell them a bit about the experiment.

For the next few minutes you will be asked to view a short videotape of peoples' facial expressions. Please read the following background information very carefully. It will help you to understand the upcoming video scenes.

The subsequent information was designed to lead subjects to believe that they would soon be seeing the faces of six happy or six sad people. Two groups of subjects, those in the No expectations groups, were given no information as to what they would soon be seeing.

<u>Subjects' Expectations</u>	<u>Reality</u>
1. Targets are happy	Subjects see happy faces
2. Targets are happy	Subjects see sad faces (supposedly masking happiness)
3. Targets are sad	Subjects see happy faces (supposedly masking sadness).
4. Targets are sad	Subjects see sad faces
5. None	Subjects see happy faces
6. None	Subjects see sad faces

In group 1, the script indicated that the video had been filmed when a group of high school friends got together to talk about the old days. They were happy--smiling, laughing, and enjoying each other's company as they reminisced about picking up dates, the fun of high school dances, and cruising.

In group 2, the script indicated that, in the scenes to follow, a group of family and close friends had just returned from the funeral of a rich woman. They were gathered to hear her last will and testament. In life, the woman had been cold, distant, and unkind. Thus, the "bereaved" were actually surprisingly happy, focusing more on the money they knew they

were about to get than on her death. Although they were trying to put a sad face on things for the sake of propriety, they were really extremely happy.

In group 3, the script indicated that a group of friends had gotten together to talk about their high school days. They were all feeling extremely sad. They kept remembering how painful it was to try, unsuccessfully, to pick up dates; they recalled the loneliness of school dances, and the boredom of cruising around when they had nothing better to do. They were all extremely depressed in spite of their efforts to appear otherwise so as not to spoil the party.

In group 4, the script indicated that a group of family and close friends had just returned from the funeral of a very rich woman. They were assembled to hear her last will and testament. They were all extremely sad and depressed. She had been a warm, loving, kind person who had been close to all of them. They had never experienced anything as tragic as this before.

Groups 5 and 6 were given no additional information.

From the outline, it is evident that in groups 1 and 4 subjects expect to see what they actually will in fact see--happy or sad faces. (Here, subjects' expectations and reality are in accord.) In groups 2 and 3, however, subjects expect to see faces that are very different from those they in fact do see. They expect to see faces feigning happiness or sadness but the faces they will see will be expressing sincere happiness or sadness. (Ekman, 1985, has documented that the facial displays of sincere and feigned emotion are very different.) In groups 5 and 6, the subjects have no expectations at all as to what they will soon be viewing.

Once subjects had read through the appropriate scenario, the experimenter turned on the subject's TV (so he or she could view the

experimental stimuli). She surreptitiously turned on a video camera (designed to record the subject's emotional reactions as he or she viewed the stimuli.) Then the experimenter left the room.

Presenting the experimental stimuli. Next, a series of six happy or six sad target faces (in motion) appeared on the subjects' TV monitor. Each face was displayed for 15 seconds; there was a five second blank interval between faces. The targets' emotional expressions were both spontaneous and natural. (See Ekman, 1985, for a discussion of the possible differences between posed and spontaneous emotional expressions.) The faces were not accompanied by sound.

Dependent measures: Assessing emotional contagion. The next step was to assess subjects' emotional experiences and reactions as they observed the target faces. Carlson and Hatfield (1991) recommend that researchers use multi-modal techniques to assess emotion. Thus, in this experiment, emotion was measured in two very different ways--via subjects' subjective self-reports and via judges' ratings of the emotions subjects' faces seemed to be expressing as they viewed the target faces.

1. Self-reports. As soon as subjects had viewed the target faces, they were asked to fill out a brief questionnaire. They were asked how "happy", "sad", and "confused" they had been while observing the videotape. They indicated their answers on the Borg (1982) emotions scale. For information on the reliability and validity of this scale, see Borg (1982). For example, one question asked:

Please circle the response which best describes your current emotional state. How strong is your happiness?

- 0 Nothing at all
- .5 Extremely weak (just noticeable)
- 1 Very weak
- 2 Weak
- 3 Moderate
- 4 Somewhat strong
- 5 Strong
- 6
- 7 Very strong
- 8
- 9
- 10 Extremely strong (almost max.)
- * Maximal

Other questions asked "How strong is your sadness?" and "How strong is your confusion over your emotional state?" Since it is always desirable to test one's hypotheses via a single test (to control experiment-wide error rate), an Index of Happiness was calculated by subtracting subjects' responses on the sadness scale from their responses on the happiness scale. Possible scores on the Index ranged from 10 (Extremely happy) to -10 (Extremely sad.)

2. Judges' ratings of subjects' facial expressions. While subjects viewed the stimulus tape, a hidden video camera recorded their facial expressions. The subjects' facial expressions were then edited into a single tape. Each segment began 60 seconds after subjects began watching the video-tape (after they had seen the first three faces) and continued for 60 seconds (capturing their expressions as they viewed the last three faces in the series.) Then, four raters, all blind as to the purpose of the study and to subjects' experimental condition, were asked to view the edited tape and to rate how much happiness, sadness, and confusion subjects' faces registered as they watched the six happy or sad faces.

Judges made their ratings on the Borg scales we described earlier. As before, an Index of Happiness was calculated by subtracting judges' ratings of the sadness displayed on subjects' faces from the happiness displayed. Possible scores ranged from 10 (Extreme happiness) to -10 (Extreme sadness.) All four judges ratings were summed to form a total Index of Happiness.

Judges' ratings of the "confusion" displayed on subjects' faces were averaged and kept as a separate measure. Again, the possible scores ranged from 10 (Subjects' faces display extreme confusion) to 0 (Subjects' faces display no confusion.)³

At the end of the experiment, subjects were completely debriefed. They were told their faces had been videotaped as they observed the target faces and were given the chance to erase the videotape if they wished. No one chose to erase his or her tape.

Results and Discussion

The first step is to make sure the manipulations of Expectations and Reality (Targets' actual expressions) were effective.

Manipulation Checks

1. Expectations. A pretest was conducted to determine whether subjects' expectations had been appropriately manipulated. Forty University of Hawaii students were asked to read scripts 1-4. After reading one of the scripts, they were asked two questions: "We are interested in what you expect to see after reading this introduction: (1) "What emotion will the group members be feeling?" Possible answers were "Happy" or "Sad;" and (2) What will their faces to look like? Possible answers were (1) "Like people look when they are pretending to be happy",

(2) "Like people look when they are actually happy", (3) "Like people look when they are pretending to be sad", or (4) "Like people look when they are actually sad". Two χ^2 tests were run. The results make it clear that the Expectation manipulations were effective. The subjects in Groups 1 and 2 always expected to see happy faces; 9 out of 10 subjects in Groups 3 and 4 expected to see sad faces ($\chi^2 = 32.80, 3 \text{ d.f.}, p < .001$) Subjects in Groups 2 and 4 almost always expected to see actual, spontaneous, expressions of emotion; subjects in Groups 2 and 3 almost always expected to see faces pretending to be happy or sad ($\chi^2 = 80.00, 9 \text{ d. f.}, p < .001$.)

2. Reality. The next step was to determine whether Reality (Target's actual emotional expressions) had been successfully manipulated (i.e., were the Happy stimulus faces judged to be happier than the Sad stimulus faces?).

The stimulus tape was constructed in the following way: in pretesting, six college students, three men and three women, were asked to describe the happiest and the saddest events that they had ever experienced. Their reminiscences were videotaped. From this master tape, the researchers selected the 15 seconds in which the students' faces seemed happiest and saddest. These six happy and six sad faces served as the experimental stimuli.

To determine whether the six happy faces were indeed happier than the six sad faces, four judges were asked to rate the two tapes on the Borg scales described earlier. Judges' ratings were combined to form a total Index of Happiness. From the data, it clear that the Reality manipulation was effective; the happy and sad stimulus tapes were judged to be very different. The judges' ratings on the Index of Happiness were

7.00 for the happy tape and -5.87 for the sad tape. A one-way analysis of variance indicated that this differences was significant ($F(1, 10) = 158.50, p < .001$).

Dependent Variables

Given that the experimental manipulations seem to be effective, it is possible to turn to Hypotheses 1 and 2. Given the experimental design, the appropriate statistical analysis for this experiment is a 3 (Subjects' expectations) x 2 (Reality: Targets' actual emotional expressions) x 2 (Type of measurement) analysis.

Hypothesis 1. Emotional contagion can be demonstrated in a carefully controlled laboratory setting. If Hypothesis 1 is correct, both subjects' self-reports and judges' ratings of their facial expressions of emotion while viewing the film, should be influenced by Reality (the targets' actual emotional expressions). Tables 1-3 provide evidence of such contagion.

Insert Tables 1-3 about here

In any experiment, it is important to control the experiment wide error rate. Thus, in our initial test of Hypothesis 1, we devised a single test to see if the independent variables effected the dependent variables as expected. Thus, a single measure of subjects' Emotions was devised by combining subjects' self report measure with judges' assessments. Only if this single measure is significant is a researcher allowed to go on to further tests. Table 1 provides strong evidence in support of Hypothesis 1. In the Happy emotion conditions, $M[\text{Self-report} + \text{Facial expression}] = 1.76$;

in the Sad emotion conditions, $M = .38$. The Main effect for Reality (Targets' actual emotion) is significant $F(1, 59) = 11.85, p < .001$. There was also a significant main effect for Type of Measurement. It appears that self reports give a more powerful indicator of subjects' emotional state than do judges' attempts to detect their emotions from their overt facial expressions. This is not too surprising.

Given these significant findings, it is legitimate to proceed to the finer-grained analyses in which we are primarily interested. The next step was to determine whether subjects' self-reports and judges' ratings of subjects' facial expressions of emotion both reveal evidence of contagion; they do. Tables 2 and 3 and Figures 1 and 2, report the results of two separate 3×2 (Expectations \times Reality) analyses of variance--Table 2 focusing on subjects' self-reports and Table 3 on the judges' ratings of subjects' facial expressions. Both analyses provide clear support for Hypothesis #1. In Table 2, which looks at subjects' self-reports, there is strong evidence of contagion $F(1, 59)$ for Reality = 6.66, $p < .012$.) In these analyses, again to control experiment wide error rate, we combined subjects' ratings into a single Index of Happiness. Since it is always risky to assume that happiness and sadness are polar opposites, we also examined whether or not we secured the same pattern of results when we looked at the happiness and sadness items separately. Such separate analyses do yield the same pattern of results.

In Table 3, which looks at judges' ratings of subjects' facial expressions, there is equally strong evidence of contagion ($F(1, 59)$ for Reality = 9.76, $p < .003$). Figures 1 and 2 graphically depict these results.⁴

Insert Figures 1 and 2 about here

The data, then, provide strong support for Hypothesis 1.

Hypothesis 2 proposed that people's cognitive expectations would effect their susceptibility to emotional contagion.

Tables 1-3 make it clear that there is no evidence that people's expectations influence their susceptibility to contagion. Figures 1 and 2 might seem, at first glance, to suggest that there is a slight tendency for the expectations of people to influence their perceptions. However, Tables 1-3 make it clear that these trends are statistically non-significant. In Table 1, it is evident that the main effect for Expectations is non-significant ($F(2, 59) = .69, p < .504$). Table 2 examines the effect of subjects' expectations on susceptibility to emotional contagion (as measured by self-reports). There is no evidence that subjects' expectations have any effect on contagion ($F(2, 59) = .23, p < .794$). Similarly, Table 3 examines judges' ratings of subjects' emotional expressions. Again, there is no evidence that subjects' expectations have any effect on their tendency to catch others' emotions ($F(2, 59) = 1.27, p < .288$).

Discussion

In this experiment, there was no evidence that the expectations of subjects influenced their susceptibility to emotional contagion. All subjects seemed prone to catch the targets' emotions. This was true whether we looked at subjects' subjective self reports of their own emotions or at more objective judges' ratings of their emotional expressions.

This suggests that the process of contagion is far more robust than had been suspected. Generally, when theorists speculate about the contagion process, they have assumed that one catches others' emotions only because one is immersed in a powerful complex of cues. The person is exposed to the target person's facial expressions, voice, speech content, posture, and so forth. In this experiment, however, subjects were exposed to only one stimulus--the targets' natural facial expressions. When one observes these videotapes, of targets' laughing and looking happy or looking sad and tearful (with no accompanying sounds), the experience is somewhat odd. It is a bit like watching a silent movie. Nonetheless, even under these conditions, one secures strong evidence of contagion.

The finding that people tend to experience and display the emotions with which they come into contact has interesting implications for both understanding and controlling emotion. Firstly, once people realize that their own emotional states may be shaped by those around them, they may gain a new understanding of their seemingly "inexplicable" emotional reactions. On occasion, people may feel happy, angry, sad, or anxious not because of events in their own lives, but because they are sensitive to the expression of the feelings of others. If people realize this, they can better judge the source of their own emotions in various situations.

Secondly, the recognition that emotions are contagious gives people some hints as to how to control their own emotions as well. If people spend too much time associating with people who are angry, bitter, or depressed, they may end up feeling the same way themselves. To control one's emotions, one may have to exercise control over one's relationships.

Table 1

Subjects' Self-Reports and Judges' Ratings of Facial Expressions of Emotion

ANOVA Summary			
Factors	d.f.	F	p
Expectations	2, 59	.693	.504, n. s.
Reality	1, 59	11.851	.001 ***
E X R	2, 59	1.604	.210, n. s.
Type Measurement	1, 59	32.695	.001 ***
E X T	2, 59	.157	.855, n. s.
R X T	1, 59	.664	.419, n. s.
E X R X T	2, 59	.166	.847, n. s.
Contrast: Expectations: Happy versus Sad only (No "No Expectation" conditions.)			
Expectations	1, 39	.586	.449, n. s.
Reality	1, 39	19.486	.001 ***
E X R	1, 39	.132	.718, n. s.
Type of Measurement	1, 39	26.159	.001 ***
E X T	1, 39	.356	.554, n. s.
R X T	1, 39	1.096	.302, n. s.
E X R X T	1, 39	.067	.798, n. s.

Table 2

Subjects' Self-Reports of Emotion

Expectations	Targets' Emotion		
	Happy	Sad	
Happy	3.36	1.04	
No Expectations	1.90	1.50	
Sad	3.20	1.00	
ANOVA Summary			
Factors	d.f.	F	p
Expectations	2, 59	.232	.794, n.s
Reality	1, 59	6.661	.012, **
E X R	2, 59	.951	.392, n.s.
Contrast = Expectations: Happy and Sad only (No "No-Expectations conditions)			
Expectations	1, 39	.025	.875, n.s
Reality	1, 39	11.744	.001, ***
E X R	1, 39	.008	.929, n. s.

Table 3

Judges Ratings of Subjects' Facial Expressions of Emotion

Expectations	Targets' Emotion		
	Happy	Sad	
Happy	1.40	- .33	
No Expectations	.08	- .28	
Sad	.61	- .62	
ANOVA Summary			
Factors	d.f.	F	p
Expectations	2, 59	1.272	.288, n.s.
Reality	1, 59	9.762	.003, **
E X R	2, 59	1.290	.283, n.s.
Contrast = Expectations: Happy versus Sad only (No "No-Expectation" conditions)			
Expectations	1, 39	1.503	.228, n.s.
Reality	1, 39	11.194	.002, **
E X R	1, 39	.315	.578, n.s.

Figure Captions

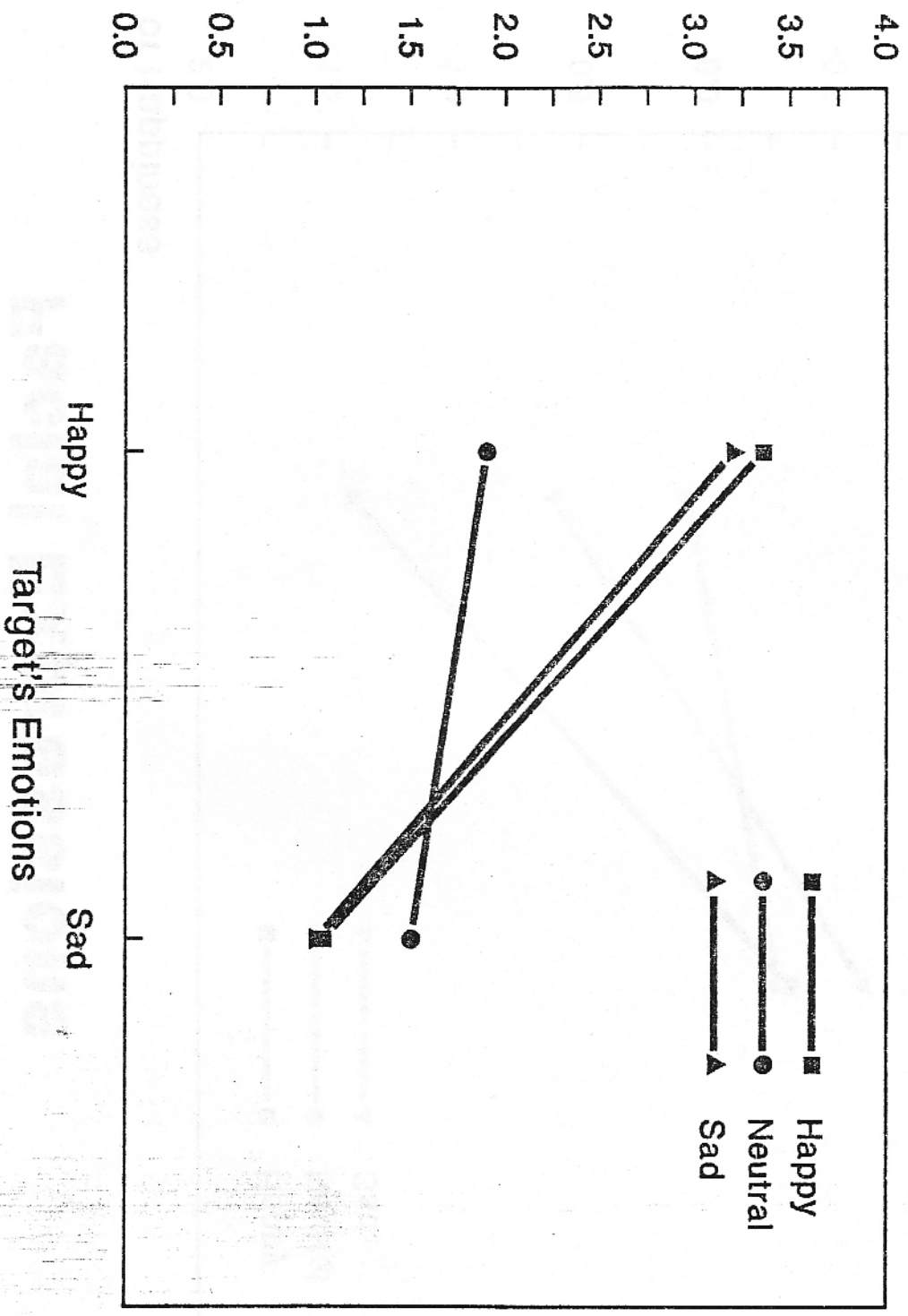
Figure 1. Subjects' self-reports of emotion

Figure 2: Judges' ratings of subjects' facial expressions of emotion

Condition	Expectations	Contagion	Control
Happy	1.85	1.85	1.85
No Expectations	1.85	1.85	1.85
Control	1.85	1.85	1.85
Expectations	1.85	1.85	1.85
Contagion	1.85	1.85	1.85
Control	1.85	1.85	1.85
Expectations	1.85	1.85	1.85
Contagion	1.85	1.85	1.85
Control	1.85	1.85	1.85

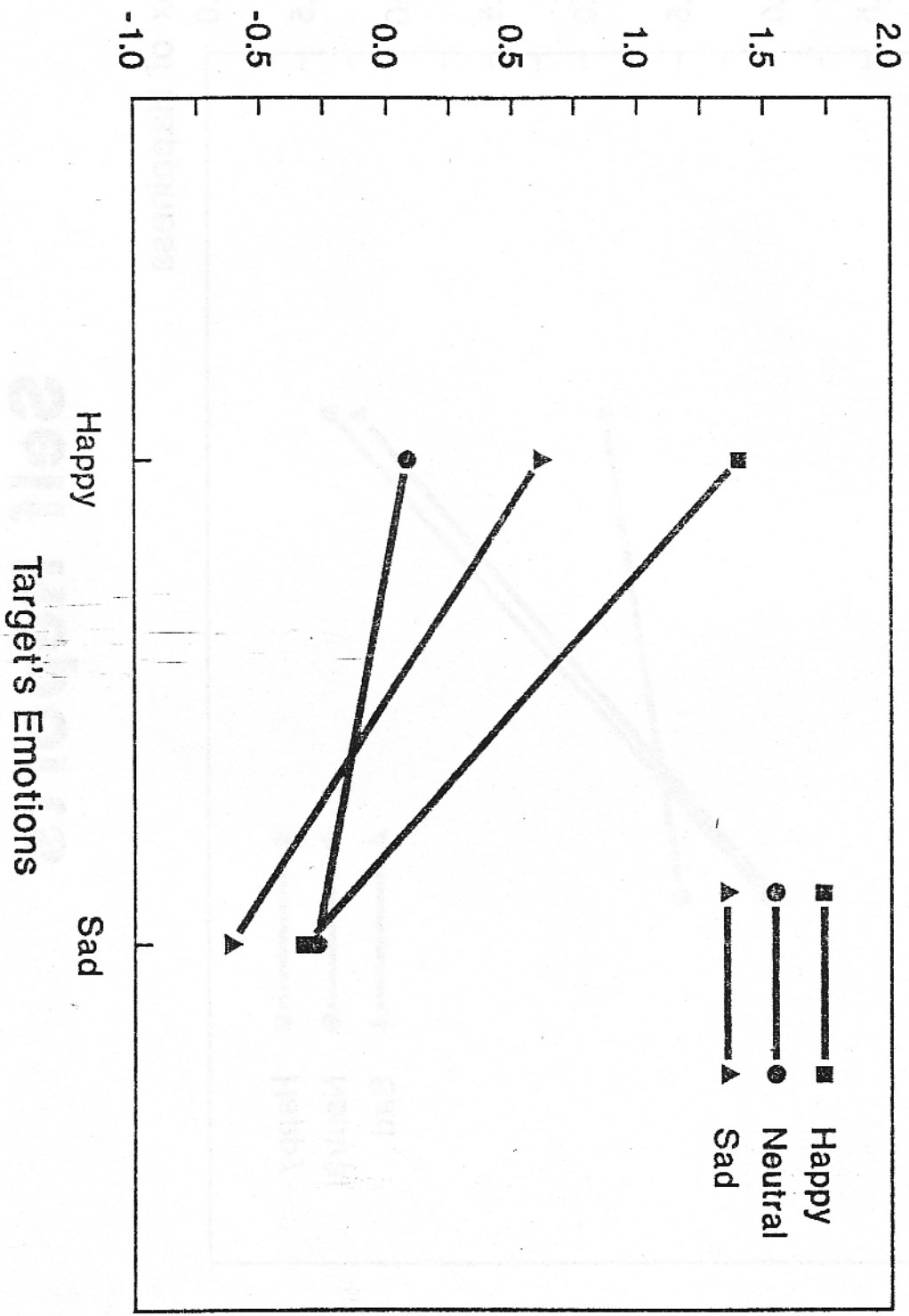
Self Reports

Index of Happiness



Facial Expressions

Index of Happiness



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Footnotes

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2. Thanks to Milli Char for running this experiment.
3. To determine how reliable judges' ratings of subjects' facial expressions were, a Pearson product moment correlation was calculated for each pair of judges' ratings. These correlations ranged from a low of .50 to a high of .77. The coefficients for all six pairs of judges' ratings were significant ($p < .001$); indicating that judges' ratings were reliable.
4. In Figures 1 and 2, it is evident that subjects in the No Expectations conditions show muted emotional reactions. Subjects in these conditions differed in two ways from subjects in the other conditions: (1) They were given no information as to what they would soon be seeing--not even that they would be viewing target people caught up in strongly emotional situations, and (2) They were not told, of course, what kind of emotion, happy or sad, they would soon be viewing. In retrospect, it is evident that subjects in the No expectation conditions should have been given a bit more information to make them truly comparable to subjects in the other conditions. For, when we look at subjects' self reports of how "Confused they were while viewing the targets' faces or the judges' estimates of how much confusion was reflected in their faces, we find that the No expectations subjects are more confused than are other subjects.