

SOCIAL COMPARISON OR UTILITY: AN EXPERIMENTAL EXAMINATION

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Emotional comparison theory was contrasted with utility theory (Rofe, 1984) in an analysis of effects of stress on affiliation in a laboratory setting. The former theory argues that participants tend to affiliate with others at a similar level of fear since this permits satisfaction of the emotional comparison need. Utility theory, however, suggests that affiliation tendency should decrease when this is likely to increase feelings of embarrassment and negative emotional contagion. In an attempt to examine this hypothesis, 3 experimental manipulations were designed. The first situation was a replication of the main features of Schachter's study, while the second and third were intended to decrease the utility value of affiliation, and, at the same time to maintain or even increase the opportunity for social comparison. In these 2 new experimental conditions participants were told that the shocks would be given immediately rather than deferred. In the third condition participants were also told that their physiological reactions would be projected on a screen, so that they could be publicly compared with others. Consistent with the utility theory, results showed that these 2 latter fear conditions resulted in a marked decrease in the affiliation tendency for males but not females.

Keywords: social comparison, utility theory, stress, affiliation, experimental examination.

Recently, a new theory in stress and affiliation – the utility theory – was proposed by Rofe (1984) in an attempt to integrate conflicting findings in this area into one theoretical framework. The theory suggests that participants tend to affiliate when this is likely to reduce feelings of distress, and avoid affiliating when this may increase these feelings. The extent of benefit or loss associated with being with others is determined by the type of stressful situation, and characteristics of both the individual and the potential affiliate. The purpose in the present research was to compare the validity of utility theory with the emotional comparison theory (Schachter, 1959) in a laboratory stress situation. The focus of theoretical and empirical contrast is dictated by the fact that emotional comparison has been most commonly used to explain the findings in this area, (cf. Cottrell & Epley, 1977) and that laboratory studies comprise the predominant type of research in this area. Findings showing the usefulness of the utility theory upon the emotional comparison theory in addressing affiliation in real life stress situations were reported in several recent papers (Rofe, 1984; Rofe & Lewin, 1986; Rofe, Hoffman, & Lewin, 1985). In the present research we compared the validity of the two theoretical approaches also in an experimental setting.

Schachter (1959), one of the initial proponents of the emotional comparison theory,

claimed that stress increases affiliation because participants are interested in comparing the appropriateness of their emotional reactions with those of others experiencing the same stress. As a result of his extensive work, he coined the phrase, "misery does not love just any kind of company, it loves only miserable company" (Schachter, 1959, p. 24). Miserable company, more than any other type of company, was thought to offer a suitable basis for comparison.

The utility theory argues that the emotional comparison theory has over-generalized the preference for miserable companions. It is suggested that under certain conditions costs arising from this form of contact may lead individuals to actually avoid it. Two damages which may arise include the possibility that one's "miserable company" increases fearfulness, and the embarrassment associated with the loss of control and the exposure of one's own fearfulness. Moreover, losses are more probable as stress level rises. Affiliation should only occur when positive coping benefits of affiliation outweigh these costs.

It appears that the laboratory procedure employed by Schachter and others created a unique situation, which glosses over these two possible damages. In the prototypical experiment, participants were told that painful shocks would be given a short time and they were then asked to state their preference to wait alone or with others during this period. It seems that the delayed threat, which in itself was relatively moderate, led participants to believe that during the waiting period they would not be so distressed that they would be unable to control their display of fear. In light of the reduced chances for damages associated with fear in interacting with the miserable company, participants would have little reason to avoid affiliation, especially since it could help them clarify the highly ambiguous experimental situation cognitively as well as emotionally (cf. Rofe, 1984, pp. 237-238).

In order to compare utility and emotional comparison analyses in a laboratory setting, three experimental situations were designed. The first was a replication of the main features of Schachter's original experimental situation. The second and third manipulations were aimed at decreasing the utility value of being with others, while maintaining or even increasing the level of fear, as well as the opportunity for emotional comparison. Thus in the second situation, participants were told that the shock would be given immediately rather than deferred (as was the case in Schachter's original experiment). The third manipulation was similar to the second, except that participants were told that their physiological reactions would be projected on a screen during administration of shocks, so that if they chose to be with others all reactions would be open to public exposure and comparison.

From the standpoint of the emotional comparison theory, there is no reason to expect that either manipulation should adversely affect affiliation tendency in comparison to Schachter's original experimental procedure. Indeed, the emotional comparison theory suggests that the group exposure manipulation should even increase affiliation since it augments participants' opportunity to compare their emotional reactions. However, the utility theory suggests that both manipulations should reduce affiliation relative to Schachter's original experimental condition. It is assumed that telling participants that the shocks will be immediately forthcoming will increase apprehensions regarding their ability to control fearfulness or that others would make

them respond more fearfully. This should be particularly true in the case of immediate shock with group exposure. Moreover, since "public display of emotion is, in our culture, considered unmanly", (Gerard & Rabbie, 1961, p.590), it would be expected that these costs would be greater for men than for women. Thus the utility theory, unlike the emotional comparison theory, predicts a decrease in affiliation under stress conditions involving immediate shock as well as under public exposure, particularly among men.

METHOD

PARTICIPANTS

Participants were 90 volunteer students recruited on campus, with 15 males and 15 females per experimental condition. Participation was limited to university students with a major or minor subject other than psychology.

PROCEDURE

Upon entering the laboratory, participants saw an impressive array of electrical equipment that for electric shocks. The participant sat in front of the electrical shock equipment and listened to instructions through a tape recorder. The instruction for participants in the first situation were as follows:

We would like to examine the effects of electrical shocks of various intensity upon your physiological reactions. We will hook you up to electrodes and give you a series of very painful electric shocks. The shocks will be quite painful, but we promise you that they will do no permanent damage. In order for the experiment to be successful it is necessary for the shocks to be very painful. It is important for us to know your feelings about your participation in the experiment. Please answer the questions on this sheet.

A sheet of paper was then distributed headed: "How much anxiety do you feel about being shocked?" The participant ranked his anxiety on a 5-point scale from 1 = *completely calm* to 5 = *high state of anxiety*. The experimenter then told the participant that s/he would have to wait about 15 minutes before the beginning of the electrical shocks. At this time, s/he was asked to indicate whether he wanted to wait alone or with others.

Participants in the second situation were given the same instructions as in the first situation, but were told in addition: "You can choose to get the electrical shocks together with others who are waiting in another room or alone in a nearby room. If you choose to be with others you will be allowed to talk to each other during the administration of the shocks. In any case the will be given now."

The participant was then asked to indicate his anxiety state on the above scale and to state his preference to be alone or with others.

In the third situation, after hearing the instructions of the first situation, the participant was told:

"In order to determine your level of anxiety, we will hook you up to electrodes and record your physiological reactions, namely, blood pressure, heart rate, and breathing rate during the administration of the shocks. These measurements will be reflected

on a screen in the room that you will be in so that you will be able to know your anxiety level. You can choose to get the electrical shocks together with others who are waiting in another room or alone in a nearby room. When the shocks are given with others the physiological measurement of each member of the group is projected on a screen so each one will be able to compare his anxiety level with those of others. In any case the shocks will be given now.”

The participant was then asked to rank his anxiety level on the above scale and to indicate his preference to be alone or with others.

When a participant refused to continue, in all three situations an attempt was made to convince him to rank his anxiety level and to indicate whether he prefers to be alone or with others. Two students refused to complete the questionnaire, and therefore they were excluded from the experiment, and five were convinced to complete it. At the end of the experiment the deception and purpose of the study was explained and the participant was asked not to discuss the study with others.

RESULTS

A 3 (situation) x 2 (sex) analysis of variance (ANOVA) of anxiety revealed a significant main effect for sex, $F(1, 84) = 10.79, p < .001$, as well as a significant interaction between situation and sex, $F(2, 84) = 3.83, p < .05$: Men displayed lower anxiety scores than females ($M = 2.76$ vs. 3.49). The means involved in the interaction were $3.07, 2.60,$ and 2.60 for men and $2.93, 3.87,$ and 3.67 for women. A one-way ANOVA, separately for men and women, revealed no significant differences in male anxiety levels across the three situations, $F(2, 42) = .87, p > .05$. Among women, in contrast, significant differences were found in anxiety level across the three situations, $F(2, 42) = 3.62, p < .05$. Scheff's test showed that women in the second situation displayed a higher level of anxiety than in the first situation.

Percentages of participants who preferred to be alone or with others in the three situations, among men and women, are presented in Table 1. As inspection reveals, most of the males in the first situation preferred to be with others, but this tendency dramatically decreased in the second condition and continued to diminish in the third situation ($\chi^2 = 6.88, p < .05$). In contrast, no significant differences were found in affiliation among females in the three situations ($\chi^2 = .93, p > .05$). At least 50% of the females in each situation preferred to be with others.

DISCUSSION

In the present experiment two intense fearful situations, which were aimed at decreasing the utility value of affiliation while maintaining or even increasing the opportunity for emotional comparison, were added to Schachter's original fear manipulation. Emotional comparison theory should expect no change or even increase in the affiliation tendencies in these two new situations compared with Schachter's original manipulation. Yet in contrast with this expectation, and in line with utility theory, affiliation tendency decreased with the increase of the cost involved in affiliation. However, this trend was indicated only by the men rather than the women.

TABLE 1: THE PREFERENCE TO BE ALONE OR WITH OTHERS IN THE THREE SITUATIONS

		<i>Situation 1</i>	<i>Situation 2</i>	<i>Situation 3</i>	
<i>Males</i>	<i>Together</i>	66.7% (10)	30.8% (4)	21.4% (3)	$\chi^2 = 6.88$
	<i>Alone</i>	33.3% (5)	69.2% (9)	78.6% (11)	df = 2
	<i>Total</i>	100% (15)	100% (13)	100% (14)	p = < .05
<i>Females</i>	<i>Together</i>	50% (7)	66.7% (10)	53.3% (8)	$\chi^2 = 0.93$
	<i>Alone</i>	50% (7)	33.3% (5)	46.7% (7)	df = 2
	<i>Total</i>	100% (14)	100% (15)	100% (15)	p = n.s.

Note: Number of subjects appears in parentheses. Three subjects in the male groups and 1 in the female groups were not included in these analyses since they did not wish to make a choice.

Sex differences in affiliation tendencies across the experimental situations do not seem to be related to sex differences in anxiety. Men reported the same level of anxiety across the three situations even though their affiliate behavior changed. In contrast, women reported higher anxiety in the immediate shock condition, yet their affiliate behavior was not affected. These sex differences in affiliation seem to be the result of greater male apprehensions regarding public exposure of their fears. A number of studies (e.g., Gerard & Rabbie, 1961; Strumpfer, 1970; Zucker, Manosevitz, & Lanyon, 1968) report that males display weaker tendency to affiliate than females. These differences have been attributed to greater feelings of embarrassment among men about being seen behaving fearfully (e.g., Gerard & Rabbie, 1961; Lynch, Watts, Golloway, & Tryphonopoulos, 1973). Lynch et al. (1973) indicate that "the affiliative reaction to stress is observed more consistently with female participants, and it would seem entirely reasonable that male participants in a variety of situations are more likely than females to consider their anxious feelings as inappropriate" (p. 76).

It is possible, however, that females in this study would also have displayed a tendency to avoid affiliation if the stress had been more intense. Rabbie (1963), for example, reports that females tended to avoid affiliation when they believed that the presence of fearful others would make them more fearful. It may be interesting to note that Rabbie also suggests that emotional comparison hypothesis does not appear to hold for the comparison of intense emotions.

In contrast to other extant approaches, utility theory appears to handle the variations in affiliation tendencies across different situations by its emphasis on cost and benefit analyses in specific settings. In the past, Sarnoff and Zimbardo (1961) have speculated that these variations are related to fear, which supposedly increase affiliation, and anxiety which was supposed to decrease it. However, their analysis is inconsistent both with the present research which showed that fear may reduce affiliation, as well as with the findings of Teichman (1973) who demonstrated that anxiety may increase affiliation. These findings imply that the distinction between fear

and anxiety has little value for predicting affiliation tendencies. Therefore it is suggested that in the context of affiliation, the general term “stress” rather than fear or anxiety should be used. It seems that the results of the present study together with other recent research findings (Rofe 1984; Rofe & Lewin, 1986; Rofe et al., 1985), increases the predictive value of the utility theory. It should be noted, however, that the actual cost/benefit as perceived by the participants was not measured in these studies. A research design which will incorporate such measurement seems now highly desirable.

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