

Monetary significance of the affiliative smile: A case for reciprocal altruism

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Whether smiling could accrue monetary returns was tested. Two degrees of smiling to single men and women ($N = 96$) by a waitress in a cocktail lounge was evaluated in terms of number of drinks ordered, size of tip, and whether the customers smiled upon departure. A broad smile reaped more money than a minimal smile and more from men than from women patrons. The results are discussed in terms of reciprocal altruism.

People react differently to a smile depending upon its extent and in what context it is perceived (e.g., Davis & Farina, 1970). Studies have been conducted to show the effects of infant smiling on parents (e.g., Sroufe & Waters, 1976) and that of children on other children and adults (e.g., Chapman & Chapman, 1974). More recently, research by Lockard, Fahrenbruch, Smith, and Morgan (1977) addressed the evolutionary differences between the affiliative smile and the mouth expression accompanying laughter. Whereas the former occurs in many social settings, the latter is predominantly manifested in a recreational context. Another study (Lockard, McVittie, & Isaac, 1977) tested the functional significance of the affiliative smile in terms of its sociability, measured as personal space between individuals in elevators. Adults were observed as they entered singly an elevator wherein an observer stood in one of nine equally divided areas (via floor tiles) and manifested either a smile or a neutral face. In the affiliative situation, the distance between the subject and the observer was significantly shorter than in the neutral situation.

The purpose of the present study was to determine if affiliative smiles would reap a monetary benefit as well. Two degrees of smiling, minimally and maximally, were tested in a purely adult situation. Using single males and females as subjects in a cocktail lounge setting, the effects of smiling by the observer (a waitress) were quantified by the amount of tipping and whether the subject smiled in return upon leaving the lounge. It was predicted that, to a broad smile from the waitress, single men would leave larger tips and return more smiles than single women.

METHOD

The subjects of this study were 96 adults, 48 males and 48 females. The observer was a female college student (age 23) working as a cocktail waitress. All subjects involved in the study were over the age of 21 and were approached by the observer as they sat by themselves at a table or at the bar. The setting for the study was a cocktail lounge in a restaurant in Seattle, Washington, from February 12 through March 6, 1977.

The observer approached each individual with either a

minimal smile (mouth corners noticeably turned up but no teeth showing) or a maximal smile (mouth corners turned up to extensively expose the closed front teeth in a "natural" appearing broad smile). In a random order, half of the males and females were given a minimal smile upon each approach by the observer and the other half were given a maximal smile. The number of drinks ordered, the size of the tip, and whether the subject smiled at the waitress upon leaving the lounge were recorded.

RESULTS

There was very little difference in the number of drinks ordered between those given the minimal smile

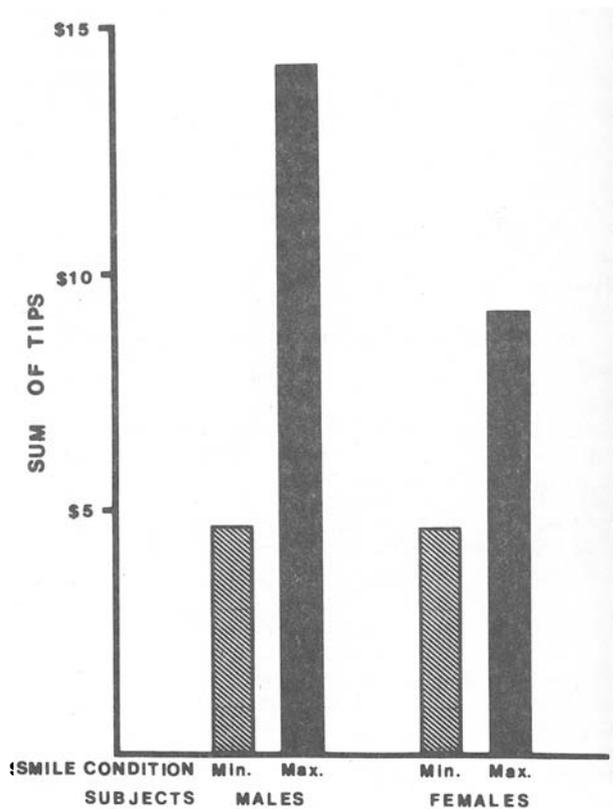


Figure 1. Sum of tips as a function of two degrees of smiling (minimally and maximally).

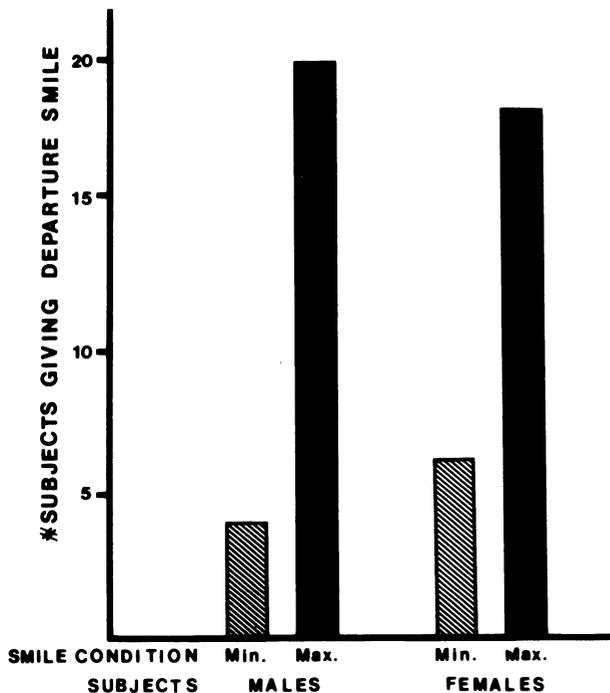


Figure 2. Number of subjects giving a departure smile as a function of two degrees of smiling (minimally and maximally).

and those given the maximal smile for either male or female subjects ($p > .05$). However, there was a significant difference for both male and female subjects in the amount of tipping in the minimal and maximal smile conditions (see Figure 1). Males tipped a total of \$4.75 and \$14.15, respectively [$t(46) = 5.58$, $p < .001$], and concordantly, females tipped collectively \$4.65 and \$9.05 [$t(46) = 2.96$, $p < .01$]. There was also a significant difference between men and women in the amount of tipping in the maximal smile condition [$t(46) = 2.78$, $p < .01$], but not in the minimal smile condition ($p > .05$).

As indicated in Figure 2, the difference in number of departure smiles by the subjects between those given the minimal smile and those given the maximal smile was significant. Males smiled 4 out of 24 departures and 20 out of 24 departures, respectively [$\chi^2(1) = 10.67$, $p < .01$], and similarly, females smiled upon departure 6 out of 24 times and 18 out of 24 times [$\chi^2(1) = 6.00$, $p < .02$]. However, in neither condition of this measure did males and females differ appreciably ($p > .05$).

DISCUSSION

Consistent with the prediction by the authors, single men who were approached by the female observer smiling broadly tipped better than women in the same situation. Unexpectedly, men did not smile more often than women upon departure in the maximal smile condition. Both male and female subjects gave more frequent departure smiles in the maximal smile than in the minimal smile condition. Also, in the minimal smile condition, there were no significant mean differences between men and women in the size of the tip or in the frequency of smiling upon departure.

As in the case of the distinction in signal content between affiliative smiles and laughter smiles (Lockard, Fahrenbruch, Smith, & Morgan, 1977), so it would seem there is also a difference in signal message between a minimal and maximal affiliative smile. Whereas both smiles indicate sociability, the maximal affiliative smile may also be an invitation for more extensive interaction. For both men and women customers, this may have indicated the probability of receiving better service, which was reciprocated by an increase in size of tip. In addition, for men, it may have potentiated the likelihood of future sexual encounters, the possibility of which was reciprocated by a relatively larger tip by men than women. The fact that men tipped no more in absolute amount than women in the minimal smile condition suggests that the greater amount in the maximal smile condition was not a function of gender differences per se in tipping behavior.

If reciprocal altruism (e.g., a favor done in return for another, both of which increase the respective altruist's inclusive fitness; see Trivers, 1971) is an evolutionary strategy of natural selection, it is undoubtedly a manifestation of cost/benefit probabilities in the distant past. Specifically, with respect to the present study, the maximum affiliative smile may have served as a correlate of probable benefits to accrue in the future. It is quite likely that smiling is an evolved signal of affiliativeness, the meaning of which in any given situation is a function of past experiences. Smiling may be one of a number of such nonverbal behaviors in hominid communication. Several facial expressions (depicting happiness, sadness, surprise, etc.) have been found to be pancultural in the general information that they convey (Ekman, 1971). Behaviors that have been favored through natural selection as affiliative signals but which have the flexibility to take on a variety of specific meanings (depending upon the context) allow efficient communication. For instance, both male and female subjects expressed their "appreciation" by affiliative departure smiles in the maximal smile condition.

Smiling did reap a monetary return in the present situation, suggesting it may have an evolved function of resource acquisition. Had a waiter also been used as an observer in the present study, the women subjects may have tipped as much as the men in the maximal smile condition. However, mate choice in many other animal species mainly rests with the female (Trivers, 1971; Wilson, 1975). If this is the case in hominids, a waiter in a situation similar to the one of the present study may not have received the amount of money from women as did the waitress from men. The setting may not have been optimal for the waiter to have reaped as many benefits as the waitress when the object of the smile was a female customer. [For example, in a different context, a study by Pederson and Heaston (1972) suggested that personal space was partially a function of the sex of the person approaching.] It may be that the promise of a sexual interaction must be initiated by a female toward a male rather than the reverse. In the same vein, a smiling waiter undoubtedly would receive more departure smiles from female than from male customers. In either case, reciprocal altruism may be the underlying mechanism; that is, female patrons, via departure smiles, showing sexual interest in a friendly waiter, and male patrons, via large tips, expressing a desire for further interaction with a waitress from whom they had received a broad smile earlier.

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