

EMBARRASSMENT AND SOCIAL INFLUENCE

by

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The goal of this study is a better understanding of the phenomenon of embarrassment and especially its role in certain social influence settings. It is argued that when an individual comes into the presence of others to interact, his self image, in effect, consists of a restricted set of salient attributes which are relevant to the occasion. Embarrassment is made possible because any aspect of an individual's behavior or appearance permits others to make inferences about his attributes. Since no individual is fully capable of dismissing such inferences, every individual is susceptible to momentary losses of self image-esteem (embarrassment) as a result of the realization that others in his presence perceive him as deficient.

From this general framework a chain of testable implications is derived: (1) the realization that others perceive one as deficient is necessary, and in most cases, sufficient to produce embarrassment; (2) an individual who possesses personality traits which make him more aware of, or more likely to accept, negative self-inferences by others is quite generally more susceptible to embarrassment; (3) an individual who, on a particular occasion, has already revealed certain self-deficiencies (to himself only or to others as well) will be more susceptible to embarrassment on that occasion (i.e., will have a higher "Embarrassment Potential"); (4) resisting social influence in a setting where there is an agent of influence, who disapproves of resistance, and makes a persistent face-to-face effort to induce compliance will be embarrassing; (5) an individual

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with a higher "Embarrassment Potential" will find resistance in such a setting more embarrassing and will, therefore, be more compliant. The last two implications serve as a basis for the construction of a mathematical model of embarrassment and social influence which permits the derivation of further hypotheses.

Data to test these implications are gathered both by a questionnaire study and by a laboratory experiment. The questionnaire, administered to 183 subjects, consists of an "Embarrassability" scale intended to assess a subject's general susceptibility to embarrassment, and a battery of personality scales intended to assess a number of traits which should affect "Embarrassability". The laboratory experiment utilizes 90 subjects and creates four-man teams. Each consists of two subjects and two confederates who work together on a division-of-labor task. In all experimental conditions a subject's performance is manipulated by controlling the difficulty of his own sub-task, thereby leading him to experience a success or a failure. In the public conditions a subject's success or failure becomes known to other team members who accordingly praise or criticize him. The embarrassment (or lack of it) resulting from these manipulations is assessed by physiological, behavioral, and self-report measures. Immediately following the task performance each subject experiences a face-to-face influence attempt by the confederates. The confederates pressure the subject toward volunteering to participate in a very large number of future team sessions, by creating the false impression that other team members wish to do so.

The data analysis is generally supportive of the implications outlined above. It verifies: (1) that the realization that others perceive one as deficient leads to embarrassment; (2) that resisting persistent face-to-face

influence is embarrassing and that such a form of influence is extremely potent; (3) that general "Embarrassability" is increased by certain personality traits (high test anxiety, low self esteem, and especially the combination of traits high empathic ability-low subjective public esteem); (4) that current susceptibility to embarrassment on a particular occasion ("Embarrassment Potential") is increased by the prior revelation of self-deficiencies. It further verifies that higher "Embarrassment Potential" is generally associated with greater compliance to persistent face-to-face influence, but also clearly indicates that certain social processes which increase "Embarrassment Potential" can create side-factors which act to reduce compliance. Finally, it suggests that in social situations a private awareness of a self-deficiency can be sufficient to produce embarrassment because, apparently, such an awareness leads an individual to imagine that others perceive him as deficient.

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I owe this study, ultimately, to the past work of two men: Erving Goffman, whose imaginative and penetrating writings on face-to-face interaction gave me an analytic framework which has so interpenetrated my own thinking that I hardly know where his ideas end and mine begin; and Stanley Milgram, whose simple yet staggering experiments on legitimate authority led me to see the potentially overwhelming nature of a face-to-face influence setting. In a very real sense my own work began as a systematic effort to superimpose the analytic framework of the former on the empirical findings of the latter.

The gap between this beginning and the present end has been traversed with the help of many persons in my more immediate environment. There is no faster or more informative way to refine one's ideas than to discuss them with perceptive associates. More than anything else this piece of work has been a process of developing, modifying, and sharpening my thinking and strategy through interaction with others. I am indebted to all those who participated in this process, but certain ones must be singled out for particular thanks.

I am especially grateful to William A. Gamson for his help and encouragement during the early conceptual stages. His ability to listen, to understand, and to reformulate in such a manner as

to separate core from periphery helped to get me out of more than one depressingly blind alley. I am grateful to John R. P. French, Jr. for sharing with me some of his extensive knowledge of experimental design. His sense for translating theory into operations, and especially his sense for the possible and the impossible in a laboratory setting contributed greatly toward making the laboratory experiment a relatively elegant and successful venture. I am grateful to Zick Rubin for sharing with me the exacting task of translating the experimental design into a standard sequence of events constituting an experimental session. His willingness to devote time to the training of personnel and preparation of materials, as well as his suggestions concerning innumerable details contributed greatly toward making the laboratory work a relatively smooth and rapid operation.

Finally I am indebted to a number of persons who aided me in the transformation of a theory, a sequence of experimental events, and a body of data into a relatively coherent written document: my father, Franco, who imparted to me a little of his knowledge of mathematical models; my wife, Kathy, who patiently read, re-read, edited, and re-edited the drafts; the members of my doctoral committee, John R. P. French, Jr., William A. Gamson, Herbert C. Kelman, and Guy E. Swanson, who contributed their time and suggestions toward improving the final draft; and last but not least, Shirley Thomas, who transformed a manuscript in bad handwriting into the first readable document.

With numbing regularity good people were seen to knuckle under the demands of authority and perform actions that were callous and severe . . . Cries from the victim were inserted; they were not effective enough. The victim claimed heart trouble; subjects still shocked him on command. The victim pleaded to be let free . . . subjects continued to shock him.

.....

The context of the situation must always be considered. The individual, upon entering the laboratory, becomes engaged into a situation that carries its own momentum. The subject's problem, then, is how to become disengaged from a situation which is moving in an altogether unpleasant direction.

The fact that disengagement is so difficult testifies to the potency of the forces that keep the subject at the control board.

Stanley Milgram, Some Conditions of Obedience and Disobedience to Authority

During interaction the individual is expected to possess certain attributes, capacities, and information which, taken together, fit together into a self that is at once coherently unified and appropriate to the occasion. Through the expressive implications of his stream of conduct, through mere participation itself, the individual effectively projects an acceptable self into the interaction, though he may not be aware of it, and though others may not be aware of having so interpreted his conduct. At the same time he must honor the selves projected by other participants. The elements of a social encounter, then, consist of effectively projected claims to an acceptable self and the confirmation of like claims on the part of others. The contributions of all are oriented to these and built up on the basis of them.

Erving Goffman, Embarrassment and Social Organization

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CHAPTER I

ON EMBARRASSMENT¹

Consider each of the following situations in turn: you are about to pay the bill in a restaurant, when you realize that you have left your wallet at home; you are working in a room when a group of friends enter and begin singing "Happy Birthday" to you; you extend your arm to shake hands with a man and discover he has no right arm; you are present at a formal social occasion when you realize your shoes do not match. These situations have a common feature; they are all embarrassing.

Embarrassment is a pervasive phenomenon. It is so universal that almost every individual has experienced it on many occasions. It is an uncomfortable psychological state encompassing a sense of exposure, of inadequacy, of awkward self-consciousness. In its more acute forms it may be accompanied by such distressing symptoms as blushing, sweating, fumbling, stuttering, tremor, panic, a dazed sensation, a consciousness of strange, unnatural gestures, and so on (Goffman, 1956). Its manifestations are not trivial and individuals will often go to great lengths to avoid a behavior or situation which might induce it. Yet, despite the fact that embarrassment is universal

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and readily recognizable, it is a mystifying phenomenon. The situations which cause it are so diverse and often so complex that its basic nature is difficult to comprehend. Perhaps there exist certain objective properties which make various situations embarrassing, but, aside from the fact that they induce a similar psychological state, the thread which links them together is hard to find. Why should an individual experience the same discomforting sensation when he trips and falls in a crowded hallway, when he is introduced to an unfamiliar audience, when he talks to a stranger who has a severe speech impediment, when he is caught in a lie? Why, for that matter, should he experience any discomforting sensation at all?

If embarrassment is a psychological and physiological "dis-ease", it is no less a social "dis-ease". The presence of others appears to be a critical catalyst, at least for its more acute forms. At the very least an individual must imagine how others would perceive him, to become embarrassed. Many behaviors which can be performed in private with no discomfort may become acutely embarrassing in public. Further, embarrassment is a highly infectious social "dis-ease" (Gross and Stone, 1964). When an individual becomes embarrassed in a face-to-face interaction, the emotion may spread in a matter of seconds until it engulfs all participants, paralyzing the interaction. Finally, the very capacity to experience embarrassment is instilled by the process of socialization. An infant is obviously incapable of experiencing it.

Embarrassment is usually, though perhaps not always, linked with the violation of social expectations¹, not merely social expectations which govern moral behavior, but those which define desirable behavior and demeanor in the widest possible sense. Embarrassment can be induced by a wide range of "inappropriate" behaviors which lead an individual to feel that others perceive him as deficient, even if only momentarily. This property of embarrassment, more than any other, makes it a significant phenomenon to the student of social processes. Because it is an unpleasant state, and because it can be suffered for violating the social expectations of others in one's presence, it plays a powerful role in the maintenance of social control in public situations. The capacity for embarrassment is a link between the individual and his social environment. It is a link which, once established, permits this environment to regulate his behavior with relative ease. Nor is this always for the better. For, an individual who is overly sensitive to embarrassment may experience great difficulties in maintaining his independence of the social environment, and in initiating and carrying through important social interactions.

In this paper, our major interest will be to understand some of the factors which make embarrassment a force in the maintenance of social control. We shall be especially concerned with the role of embarrassment in face-to-face influence situations. While tendin

¹In some cases acute embarrassment can be suffered empathically, as when one observes a bad comedian on an amateur show. In other cases it can seemingly be induced by sheer volume of attention, as when one is the focal point of a round of "Happy Birthday to You".

toward this primary goal of linking embarrassment and social influence, we shall also seek to gain insight into the nature of embarrassment.

Anatomy of an Embarrassing Incident

Embarrassing incidents may simply involve foolish or inappropriate behaviors which happen to occur in public, e.g., slipping and falling, dropping food in one's lap, hiccupping uncontrollably. Often, however, they involve deviant behaviors which occur in the context of an ongoing social interaction. Such embarrassing incidents give us special insight into the nature and forms of embarrassment. For, in order to capture them fully, it is necessary to view them simultaneously from the perspective of the structure of the interaction, of the deviant individual, and of the other participants. Let us attempt to examine the sequence of events which leads into, and out of, a typical face-to-face embarrassing incident.

Following Goffman (1956, 1959) and Gross and Stone (1964), we begin by noting that the participants for an interaction evolve and share a mutually constraining consensus which defines behavior appropriate to the occasion. This consensus is created by establishing the identities of all participants. Within the framework of certain general norms, each participant establishes a claim to the possession of certain desirable attributes by the manner in which he presents himself to the others. "Through the expressive implications of his stream of conduct, through mere participation itself, the individual effectively projects an acceptable self into the interaction, though he may not be aware of it, and though others may not be aware of having so interpreted his conduct" (Goffman, 1956, p. 268). The

consensus that evolves, then, consists essentially of a set of shared assumptions about the identities¹ of all participants-- about the attributes they do or should possess and consequently about how they should appear and behave. So long as every participant behaves in a manner consistent with these assumptions, all events seem expected and appropriate to the occasion and hence the interaction remains smooth. The assumed identities of all participants remain in the background acting as tacit constraints, while the participants devote their attention and evaluation to the manifest content of the interaction. No one is particularly aware of himself or the others as individuals, but merely as contributors to this manifest communication.

However, as soon as a participant behaves in a manner which is clearly inconsistent with this consensus, and hence inappropriate, a series of disturbing consequences follow. This behavior cannot be integrated into the ongoing interaction. It has violated an underlying assumption of the process. No one is quite prepared or able to respond to it because it should not have occurred. Thus the interaction becomes momentarily blocked. Since the behavior cannot immediately be ignored, the attention of all participants now shifts to it and its perpetrator. The perpetrator is no longer viewed as a contributor to the manifest content of the interaction. Nor can his assumed identity remain in the background as it had heretofore. Suddenly he is viewed as an individual who has indicated

¹At a later stage of this chapter we shall introduce the term "public image" to refer to a participant's public identity on a specific occasion.

that, after all, he may lack some positive attribute which everyone had assumed he possessed. Whether or not any overt communication is directed at the deviant, he is likely to become aware of his status as an isolated individual divulging negative information about himself. If he does, he will become self-conscious and embarrassed.

At this point all participants have an incentive to end the incident. The embarrassed individual wishes to terminate his embarrassment; the others not only wish to help, but also wish to terminate their semi-anomic situation. Hence, all are likely to attempt to engage in some co-operative effort to restore the individual to his former status and re-structure the interaction. Since, in undermining his assumed identity the deviant individual may be said to have "lost face", Goffman (1955) refers to this series of restorative moves as "facework". The embarrassed individual, or the others, may attempt to introduce mitigating information excusing or explaining his deviant behavior. Or, all may make a studious effort to ignore the incident, proceeding as if it had never occurred. Or, they may define the deviant behavior as humorous making it the basis of further jokes, while at the same time implying it was so atypical of the deviant as to have no implications for his "real" identity. In any case, if the interaction is to be restored and the deviant re-assimilated, some such line of facework must be initiated and followed through by the participants.

But some of the most distinctive and distressing features of an embarrassing situation come to the fore precisely at the juncture between the initial embarrassment and the institution of facework mechanisms. Because the interaction is unstructured, and because

the deviant individual is the focus of attention, his embarrassment is likely to linger on, becoming more severe and eventually engulfing all participants. The very act of becoming embarrassed may cause further embarrassment to the deviant. It is a tacit admission of his revealed inadequacy, which he would rather not emphasize. Further, it is an involuntary admission of weakness, of vulnerability, of excessive dependence on the evaluations of others, which he would rather not disclose.¹ Finally, the emotion itself is likely to disrupt his cognitive functioning, creating a form of panic which will make him appear even more blundering and unpoised, and render him incapable of participating skillfully in the facework process.

If the deviant's difficulties are just beginning after his initial embarrassment, the lot of the other participants may be no better. They too have cause to become embarrassed. To the extent that they identify with the embarrassed individual, they may suffer with him through empathy. Further, since they share some responsibility for the deviant's discomfort, they are likely to feel that their own behavior was not entirely appropriate. Their mere presence coupled with their inability to prevent the deviant's behavior from disrupting the interaction has contributed materially to his embarrassment. And, no participant can contribute to the undermining of another's identity without at the same time undermining his own claim to being tactful (Goffman, 1956). Finally, given the unstructured state of the interaction, choosing an appropriate line of facework to initiate

¹Consider the effect of saying to a person who has just engaged in a minor faux pas, "Why, you're blushing!"

is no easy matter. For example, the inappropriate behavior cannot be both excused and ignored. Hence, if the deviant is partially incapacitated by his embarrassment, and the others are not exactly lucid, no one knows which line of facework would be effective. This ambiguity may lead to a prolonged period of awkward silence, or to the initiation of contradictory efforts, or even to efforts which abort because the deviant and others fail to follow them up. In any case such eventualities will lead all to feel increasingly inept and embarrassed. It is such processes which, much to everyone's discomfort, can transform a single embarrassing incident into a chain of embarrassing incidents eventually involving all who are present.

This analysis illustrates some of the richness and subtlety which characterizes the phenomenon of embarrassment. It also illustrates the degree to which sociological and psychological factors become intertwined when this phenomenon is analyzed. Its causes are rooted as much in the structure of face-to-face interaction as in the capacities of individuals; its effects are as real for the interaction as for the individuals who experience it. Embarrassment is a two-way window, through which one can as readily and profitably observe the individual as the structure of face-to-face interaction. It is for this reason that the small quantity of work in this area has tended to follow two divergent paths corresponding to the psychological and sociological implications of embarrassment.

Approaches to the Analysis of Embarrassment

The focus of the sociological researchers, such as Goffman, and Gross and Stone, is expressed with exceptional clarity in the

following passage from Gross and Stone (1964).

Embarrassment exaggerates the core dimensions of a social transaction, bringing them to the eye of the observer in an almost naked state. Embarrassment occurs whenever some central assumption in a transaction has been unexpectedly and unqualifiedly discredited for at least one participant. The result is that he is incapacitated for continued role performance. Moreover, embarrassment is infectious. It may spread out, incapacitating others not previously incapacitated. It is a destructive disease. In the wreckage left by embarrassment lie the broken foundations of social transactions. By examining such ruins, the investigator can reconstruct the architecture they represent. (p. 2)

Hence, Gross and Stone proceed from here to use various instances of embarrassment as a tool for pointing out the more subtle aspects of the role requirements for social interaction.

Similarly, Goffman has tended to use embarrassment to highlight the processes of face-to-face interaction which he analyzes so insightfully. In his own words, "By listening to this dissonance [of an embarrassing social encounter] the sociologist can generalize about the ways in which interaction can go awry and, by implication, the conditions necessary for interaction to be right" (1956, p. 265). Embarrassment becomes a springboard for the analysis of certain corrective rituals in social interaction (1955). It serves to illustrate the consequences of a failure in self-presentation for the structure of an interaction (1959). It becomes one of many ways to illustrate the need for special "cooling out" mechanisms in a social organization-- mechanisms which disengage a failure from his role while minimizing callousness and awkwardness (1952). In one article embarrassment becomes, in part, a social mechanism through which an individual can announce that, though he cannot maintain his role on this occasion, "he is at least disturbed by the fact and may prove worthy at another time" (1956, p. 271).

Some researchers who have inclined toward the psychological implications of embarrassment have viewed the phenomenon as virtually synonymous with shame. We would rather not concern ourselves with the distinction, if any, between shame and embarrassment. As psychological or emotional states, the two appear to be very similar. In common usage one is primarily ashamed of oneself, while one is primarily embarrassed about one's presented self. This may simply mean that shame is the more personal extension of embarrassment,¹ or it may mean that it is a quite distinct psychological state. Thus, it may be that shame can result directly from an inappropriate act known only to the self, or it may be that this is no more than the embarrassment resulting from an imagined revelation of the act to others. Provided we remain clear about the fact that embarrassment requires the actual or anticipated presence of others, there is little harm in using shame as a synonym". For example, Baldwin and Levin's definition of shame is fully in line with our concept of embarrassment: "shame is an emotional state which occurs when one's defects, poor abilities, or bad intentions are made public" (1958, p. 363).

The focus of psychological researchers has been somewhat more diversified than that of sociological researchers. One use of embarrassment or shame is illustrated by the following passages from Lynd (1958).

Experiences of shame appear to embody the root meaning of the word--to uncover, to expose, to wound. They are experiences of exposure of particularly sensitive, intimate, vulnerable

¹Goffman, for one, uses shame precisely in this sense (1956).

aspects of the self. The exposure may be to others but, whether others are or are not involved, it is always . . . exposure to one's own eyes. (pp. 27 and 28)

.....

I became interested in experiences of shame through coming to recognize that concepts of guilt as they are currently used, under a variety of names, are inadequate to explain certain types of experience and certain types of personality which they are assumed to include. They and their derivatives, moreover, leave much of the sense of identity¹ unexplained and perhaps unexplainable. It then occurred to me that further exploration of experiences of shame might help to explain some neglected aspects of personality development and lead toward greater understanding of identity. (p. 17)

.....

The importance of reconsideration of the meaning of shame does not, as noted above, lie in the redefining of a particular word. The question is whether customary definitions and usage have led to the neglect of significant experiences that may be of special relevance for the understanding of identity. (p. 23)

Hence, Lynd proceeds to explore the nature of shame, to distinguish it from guilt,² and finally to use this analysis to highlight certain processes in the formation, maintenance, and change of individual identity and personality. Horowitz (1962) uses embarrassment to explore changes in self-concept which occur at adolescence by comparing embarrassment memories of elementary school, high school, and college students. She hypothesizes that the adolescent's greater awareness of self and greater discrepancy between self-

¹Note that identity is not used by Lynd in our previous sense of a set of publicly claimed attributes which leads others to expect certain behavior. Rather, Lynd uses it to refer to an individual's basic sense of self--of who he is.

²For readers concerned with the difference between shame or embarrassment on the one hand and guilt on the other, Lynd's discussion is useful. See also a book by Piers and Singer (1953).

concept and ego-ideal make him more susceptible to embarrassment. In fact, she finds that the largest proportion of embarrassment memories of both high school and college students occurred during the age period of eleven to fifteen, but she generally finds that the greater the discrepancy between a student's self-concept and ego-ideal the fewer embarrassment memories he reports. She squares this latter finding with her theory by invoking the concept of repression.

Baldwin and Levin (1958) attempt to demonstrate that a public failure will lead to a greater decrement in performance than a private failure, because the former will produce an emotion (shame) which will be more disruptive to cognitive functioning. Their experiment fails to demonstrate this, but they speculate that it may be due to the fact that their private failure was not entirely private because the experimenter saw the failure immediately following (even if not during) the performance. They do find that failure is generally disruptive to performance, whether it occurs in "private" or in public. Levin and Baldwin (1958) explore the consequences of a child's success or failure at building a model for his willingness to demonstrate this handiwork to various types of audiences. They find that children, generally, wish to exhibit their work to audiences that are younger than themselves rather than older than themselves. Further, they find that children who fail tend to be less willing to exhibit their work to any audience. In studies somewhat tangential to embarrassment Pavio and Lambert (1959), Levin et al. (1960), and Pavio, Baldwin and Berger (1961) explore "audience anxiety" (i.e., stage fright) in children. They attempt to assess this disposition by questionnaire methods, to measure its effects

on public performance, and to relate it to personality variables and parental socialization practices. Many of these Levin and Baldwin studies are summarized in their 1959 article.

Sattler (1960, 1963, 1965) has probably worked most extensively with the psychological aspects of embarrassment. He is interested in the nature and specific causes of embarrassment to the individual. He defines embarrassment as "the possibility of a negative judgment in a situation in which one finds himself an object of the perception of another" (1965, p. 22). He explores the phenomenology of embarrassment by asking subjects to rate, on a semantic differential, how they feel when they are embarrassed (1963). His results show that this feeling-state is rated highest on the Evaluative Factor (tense, awkward, incomplete, dark), next highest on the Potency Factor (impotent, fragile, dull) and lowest on the Activity Factor. Sattler explores the causes of embarrassment by working with a collection of several thousand embarrassment memories of various age groups, which he categorizes into five major classes and thirty-nine sub-classes (1965). The five major classes reflect different relationships between ego (the embarrassed person) and alter (e.g., ego embarrasses himself, ego embarrasses alter, alter embarrasses ego, ego is embarrassed for alter). By comparing the embarrassment memories of adolescents, college students and adults he demonstrates a shift, over the life cycle, in the kinds of experiences which an individual finds embarrassing (1965). His analysis shows that college students and adolescents are more embarrassed than adults by experiences involving the opposite sex, ungraceful actions, and teasing or criticism. On the other hand, adults are more

embarrassed by experiences reflecting on their general competence as social beings, e.g., forgetting names, having to borrow money, placing another in an awkward position. Sattler also includes a sample of schizophrenics among his respondents in order to explore how this mental disease affects the quality of embarrassing experiences. Specifically, he hypothesizes that, by virtue of their lack of empathy, schizophrenics will be less susceptible to empathic embarrassment. Instead he finds that they are less likely to become embarrassed by actions of others which reflect on them, but only very slightly less likely to become embarrassed through empathy for another.

From this brief survey we have seen more concretely how different researchers have analyzed the phenomenon of embarrassment in differing manners depending on whether their central concern was with its effects and implications for the structure of social interaction, or its effects and implications for the structure of individual action, feelings, personality, and identity. As we noted at the outset of this chapter, our own primary concern is with the role of embarrassment in social control and social influence. Further, we take for granted that the maintenance of social organization demands that individuals be controllable and influenceable. Our interest is in the factors which make a social being controllable and influenceable through embarrassment. Hence, we too shall tend to take the more psychological path, searching for the psychological or social psychological processes and variables which determine an individual's embarrassment. Our concern with the structure of a social situation will be primarily from the perspective of its impact on the individual--or more precisely, with its implications

for these psychological and social psychological processes and variables.

In the remaining sections of this chapter we shall attempt to introduce some variables within an analytic framework which can lead to empirical investigation. In ensuing chapters we shall report the results of two empirical studies and note their implications for our theoretical framework. Finally, we shall attempt to re-evaluate and perhaps re-work this framework in the light of all the data we have gathered.

Attributes and Person-perception

We stated earlier that an individual's embarrassment can often be a consequence of his having deviated from the norms or social expectations of an occasion. Such a formulation is essentially a sociological one. Often in a sociological analysis of an interaction, participants' behavior is analyzed or evaluated with respect to the existing norms. It is typically said that deviant behavior will lead to disapproval or negative evaluation from the social environment. While this is perfectly accurate and in most cases adequate, it misses an important intervening step. A core notion in our own analytic framework is that people who are actually present on a social occasion do not go directly from the perception of a deviant act to disapproval of the deviant. Rather, they pass through an intermediate step--they perceive the deviant act as indicating that the deviant possesses certain deficient qualities, which, in turn, make him worthy of disapproval or negative evaluation. This intermediate step involves the process of person-perception.

The determinants, qualities, and consequences of person-perception are the critical links which tie together social expectations, self-perception and embarrassment. In particular, the basic (cognitive) unit of both person-perception and self-perception--an attribute--is perhaps the most important underlying concept in our analytic framework. We shall, therefore, begin our more formal discussion of embarrassment by exploring some aspects of person-perception and self-perception through attributes. Armed with ideas developed in this discussion, we shall then return to the phenomenon of embarrassment in a somewhat more analytic fashion.

We introduced the concept of "attributes" informally in our earlier discussion and we shall now examine its properties more carefully. An attribute is basically a label which ascribes a quality to a person. Thus smart, witty, ugly, quick, funny, fat, old, generous, and sloppy are all attributes. As suggested by French and Miller (1963), it is helpful to conceive of attributes as being arranged along certain dimensions.

Social groups typically define attributes with respect to single dimensions. We shall regard a dimension as a set of alternative possible attributes which are treated by a group as constituting a roughly linear scale . . . [An] attribute is assigned a location on [a] dimension. An attribute of . . . identity is the location a person [is assigned] on a single dimension. (pp. 8 and 9)

For example, a dimension might be defined by the polar opposite attributes: brave-cowardly. There are clearly a large number of attributes that lie between these two, but because the attributes on such a single dimension are mutually exclusive, an individual can be described by one and only one such attribute at any given moment in time. Further it may be noted that, with

respect to any particular social group, the arrangement of attributes along a dimension usually corresponds to a continuum running from undesirable to desirable and sometimes back to undesirable. That is, to a degree which varies with the dimension and with the group in question, an individual is evaluated positively to the extent that he possesses attributes which lie at the desirable point on a dimension.

Attributes have a number of properties which are of great importance to understanding the process of person-perception. First, attributes are necessarily imputed on the basis of inferences from behavior (verbal or otherwise) and appearance. It is impossible to establish directly that an individual is witty or polite. This can only be done by extended observation of the individual's social activity. In this sense attributes are like hypotheses about a person. But without certain rules of inference to apply to behavior and appearance, even extended observational data cannot be converted into attributes. Generally speaking, these rules of inference are provided by the social environment. Perhaps the most important set of rules are the norms which govern a particular social occasion. Certain appearances and behaviors are expected or considered desirable for a person in a particular role on a particular occasion.¹ Hence, a person is positively evaluated to the degree that he can manifest these. Another way of stating this is that possession of certain attributes is considered desirable for a person in a particular

¹ Presumably these are desirable because they are functional in achieving the collective goals of the occasion, or of the wider society.

role on a particular occasion, and that others will infer that he possesses such attributes to the degree that he can manifest normatively expected behavior and appearance. This means that the same behavior will lead to the inference of different attributes on different occasions. For example, in one social context swearing may be taken as an indication of manliness, in another it may be taken as an indication of uncouthness. Conversely, the same attribute will be inferred from different behaviors on different occasions. For example, when an individual is a host at his own house he can demonstrate his politeness and tact by under-dressing, but when he is a guest in another's house, he will do so by assuring that he is not under-dressed.

Attributes, of course, are not imputed one at a time, nor solely on the basis of behavior and appearance. Individuals are generally given the benefit of a doubt and perceived as possessing attributes appropriate to a role or an occasion by virtue of their mere presence, until proven otherwise. Further, attributes are logically and empirically correlated with one another, as well as with certain social statuses. Hence a physician may be assumed to be well-educated, wealthy, humane, neat, careful, etc. Or, a person who has indicated by his behavior that he possesses several very desirable or undesirable attributes may be assumed to possess other undemonstrated attributes through a "halo-effect".

Attributes can be viewed as a compact condensation of data about an individual's appearance and behavior on various occasions gathered from direct observation or other sources. They symbolize the individual's motivation and propensity to perform certain

actions under certain circumstances. For this reason they serve as a basis for predicting and interpreting his present and future behavior. In our previous analysis of an embarrassing incident, we noted that by establishing their identities (i.e., relevant attributes they possessed) the participants enabled one another to anticipate and interpret upcoming behavior. Interactions tend to be awkward and unpredictable in proportion to a person's lack of knowledge of others' attributes. Hence, it is easier to carry on a conversation with an old friend than a new acquaintance.

Because attributes are inferred from past behavior, but at the same time are a basis for interpreting and predicting present and future behaviors, impressions of a person as possessing certain attributes may be slow to change. Ambiguous behaviors can be taken as evidence for previously imputed attributes, and contradicting behaviors can be discounted as "exceptions". Further, such processes are motivated by one's desire to form a concrete impression of the other's attributes as quickly as possible in order to smooth interaction and better understand his behavior. The net result is that prior impressions are of great importance in determining one's future perceptions of another person and his behavior. Generally, the larger the number of observations which support the imputation of a certain attribute, the less likely this imputation is to change on the basis of one or two samples of behavior.

It goes without saying that an individual is generally highly motivated to demonstrate that he possesses desirable attributes. Not only may a failure to do so entail certain immediate sanctions, but it will determine his long-range desirability to others, and

hence his ability to fulfill a large number of needs mediated by the social environment in which he exists.¹ Because an individual may be motivated to mislead others about his attributes, certain instances or aspects of behavior are likely to be taken as more valid sources for inference than others. For example, behaviors performed in a highly informal social setting, or when the individual believes he is alone, are likely to be taken as more valid. Also those aspects of behavior and bearing which seem less clearly under conscious control are likely to be taken as more valid. With this in mind, Goffman (1959) distinguishes between impressions "given" and impressions "given off." An individual "gives" an impression of himself by overtly communicating to others, or by directly showing them, who he is and what he does. But an individual "gives off" an impression of himself through behaviors which others perceive as having been performed for reasons other than for the inferential information which they convey.

Person-perception and Self-perception

We have noted that an individual is obviously motivated to demonstrate to others that he possesses desirable attributes because this will greatly improve his opportunities for fulfilling needs mediated by the social environment. We may further assume that an individual wishes to believe that he actually possesses desirable

¹Of course an individual is not equally motivated to be positively evaluated on all occasions. Presumably he could be negatively motivated if a particular group de-valued some attribute which was highly valued in his more usual social circles. The point is that to the extent that a person wishes to spend the better part of his life in some social environment, he will experience insurmountable difficulties if he makes no effort to demonstrate that he possesses the attributes valued in that social environment.

attributes. An individual's standards of excellence are necessarily very largely a product of his social environment. Hence, if an individual is to conceive of himself as desirable, he must perceive himself as possessing the attributes which his social environment defines as desirable. We can assume that it is very disturbing to an individual to perceive himself as undesirable. The question now becomes: how does an individual come to perceive himself as possessing desirable attributes? The fundamental contribution to social psychology made by Mead and Cooley makes the answer to this question relatively simple: the individual comes to perceive himself as possessing desirable attributes largely by demonstrating to others that he possesses desirable attributes. Mead and Cooley both emphasized that an individual's concept of self is a reflection of the concept others have of him; that, if an individual is treated by others as if he were a certain type of person possessed of certain attributes, then he will come to conceive of himself as this type of person possessing these attributes. Thus, to the degree that an individual can demonstrate to others that he possesses certain attributes, these others will treat him as if he possessed them, and consequently he will perceive himself as possessing them.

No social psychologist would question the basic outline of Cooley and Mead's proposition. Nevertheless, at least one basic point remains unclear: to what extent does an individual remain open to information from others about his attributes through the course of his life? It is clear that the self-concept of a child of age two or three is highly malleable and susceptible to information

from others' treatment of him. It is not so clear that the self-concept of an adult of age forty or forty-five, based on some twenty years of reasonably stable treatment from others, is particularly susceptible to new information. However, it is our contention that even an adult's moment to moment conception of his possessed attributes remains influenced to a surprising degree by the last bit of information he receives from others, and that this underlies the almost universal capacity for embarrassment. Why this should be so is not entirely clear, but we shall review considerable empirical evidence to support this contention. Perhaps the reason lies in the very nature of attributes: because attributes perpetually have the status of hypotheses which must be supported by inferential evidence, every bit of clearly disconfirming information can re-introduce disturbing doubts. Or perhaps the reason lies in the process of self-concept formation: because self-concepts are originally formed out of reflections from others in the social environment, they remain forever anchored, to some degree, in such reflections. Or perhaps it has to do with the fact that persons deliberately and consciously attempt to create the impression that they possess desirable attributes, thereby planting a seed of doubt in their own mind as to whether past confirming treatment by others really indicated their possession. Or perhaps it has to do with the fact that others are generally tactful and unwilling to point out negative attributes, hence undermining an individual's confidence in the honesty of others' past evaluations of himself. In any event, there is considerable evidence that an individual's self-concept remains surprisingly susceptible to others' perceptions of him throughout his life.

Some of the most dramatic evidence that self-concepts remain anchored in the current social environment comes from the studies of brainwashing. Lifton (1961) describes a number of cases in which, through physical hardship, isolation, and intensive interaction with already converted prisoners, a man's self-concept is rather thoroughly broken down and re-constituted in a matter of months. In most such cases the new self-concept partially broke down again when the man returned to his usual social environment. The treatment received by Korean POW's was not as intensive, but it too had an impact. Schein (1956) describes how the disruption of their formal and informal social structure led to increasing isolation and a partial breakdown in self-conception marked by confusion, distrust, and general impairment of functioning.

More direct evidence comes from studies of T-groups by Sherwood (1965) and Lundgren,¹ Their data indicate that, in an atmosphere where individuals are encouraged to communicate about each other's attributes, there is a fairly rapid conversion of self-concept to the concept of one's self held by others. A study of friendship groups by Manis (1955) shows a similar, rapid conversion of self-concept to the concept of one's self held by friends. A host of even more direct studies by Sharma (1956), Harvey et al. (1957), Videbeck (1960), Evans (1962), Jones et al. (1962), Hicks (1962), Backman et al. (1963), Maehr et al. (1962), Harvey (1962), Haas and Maehr (1965) indicate that if a person is given false feedback to the effect that

¹David Lundgren, personal communication of data to be utilized in a doctoral dissertation at the University of Michigan.

he does or does not possess certain desirable attributes, it has an immediate, sometimes dramatic, impact on his self-concept with respect to these attributes. Follow-up studies generally show that, in the absence of further feedback, this effect is short-lived. The Haas and Maehr study indicates that the effects of a single such feedback are still discernible six weeks later, though the individual gradually reverts to his former self-concept. An experimental study by Gergen (1965) is of particular interest. In one condition of this experiment the subject was told to present himself to an interviewer in as favorable a light as possible. Subjects did this by indicating that they possessed a number of desirable traits as the interviewer asked about each trait in turn. Subjects were further told that the interviewer had been intensively trained to maintain fairly standard behavior and to build up rapport. During the interview, the interviewer agreed with every positive rating a subject gave to himself and tended to disagree with any negative ratings. Despite the fact that subjects knew they were lying about their attributes, and that the interviewer was likely to be intentionally flattering them, pre- and post-ratings on self esteem showed a significant increase as a result of the experimental treatment. In discussing this study, Jones (1964) concludes that such results may be interpreted

as reflecting the normal human desire to treat approval from others as a signal of basic personal worth, even though behavior eliciting approval has been colored by such tactical considerations as concealing or minimizing negative self-attributes. The relative ambiguity of one's self-concept, and one's pervasive uncertainty concerning where one stands on most evaluative dimensions, make this kind of retrospective distortion possible.
(p. 78)

We would add that if an individual's ambiguity about self-concept is such that he becomes heir to such gross distortion in the name of vanity, he is not likely to be in a strong position to fend off negative information about himself received from others.

Embarrassment, Self-perception, and Person-perception

In order to link our current discussion with embarrassment, we shall introduce some analytic terms closely related to those utilized by Miller (1960). We shall refer to the total set of attributes which an individual perceives himself as possessing as his "self-identity". We shall refer to the total set of attributes which an individual believes others perceive him as possessing, as his "subjective public identity".¹ By an individual's "self esteem" we denote the total desirability which he attaches to the set of attributes constituting his self identity. By an individual's "subjective public esteem" we denote the total desirability which he attaches to the set of attributes constituting his subjective public identity.² In effect, then, the studies we reviewed in the last section may be summarized as follows: (1) self identity and self esteem are generally shaped by subjective public identity and subjective public esteem; (2) self identity and self esteem remain relatively susceptible to short run change from current perturbations

¹This concept makes sense only if we assume that the individual perceives that others share a reasonable consensus about the attributes he possesses. More precisely, he must perceive reasonable consensus within each set of others with whom he interacts in the different segments of his social environment (i.e., within his different "publics").

²To keep matters simple we may make the fairly safe assumption that there is general agreement between the individual and the various segments of his social environment concerning the relative desirability

in subjective public identity and subjective public esteem.

It is our contention that embarrassment is best viewed as the psychological state associated with a form of loss of self esteem. Specifically, it is a loss of self esteem resulting from the fact that an individual is "forced", at least to some extent, to perceive himself as lacking some positive attributes because others in his immediate presence perceive him as lacking them. Since embarrassment can be a fairly poignant psychological state, it suggests the loss in self esteem must be fairly severe. Yet, if self esteem encompasses the desirability of all an individual's traits, it is difficult to see how the loss of only a few such attributes could have such a profound effect. For this reason, we would suggest that when an individual is engaged in social interaction on a particular occasion, his self-concept (or self awareness) effectively consists of a much smaller set of attributes.

We have noted previously that attributes are arranged on dimensions and that different dimensions are salient on different occasions. We are now suggesting that when people come into one another's presence to interact, they do not perceive themselves or each other in terms of their total identities. Quite to the contrary, they utilize a fairly restricted set of attribute-dimensions.

of attributes. We do not assume that everyone with whom he interacts agrees with everyone else concerning the relative desirability of attributes. We assume only that there is rough agreement between the individual and each particular segment of his social environment (e.g., each of his "publics") concerning the relative desirability of the attributes which are salient and relevant in this segment of the social environment.

In particular, people perceive themselves and one another only in terms of the attribute-dimensions that are relevant to, or made salient by, a particular occasion.¹ We shall refer to these "smaller identities", consisting of the attributes from dimensions which are salient on a particular occasion, as "images". An individual's "self image" is his own perception of his possessed attributes on an occasion. His "projected public image" (or public image) is the image he transmits to others by his presence, behavior, and appearance (i.e., by his self presentation).² His "subjective public image" is his own perception of his projected public image. We, of course, assume that an individual's subjective public image is very important in shaping his self image, but we do not assume that the former entirely determines the latter. We noted previously, using different terms, that people interact smoothly by virtue of the fact that they tacitly share assumptions about the attributes constituting one another's projected public images. Note, however, that individuals are not particularly consciously aware of their own or one another's images until an event occurs which heightens self-consciousness (e.g., a breakdown in the interaction, or an embarrassing incident). We should take special care to note that we define self image, subjective public image, and public image with respect to an entire occasion.

¹Occasion has a common-sense meaning but perhaps we should attempt a somewhat more precise definition. An occasion is a social encounter (of any duration) governed throughout by a relatively stable set of norms, and during which participants remain in relatively continuous interaction with one another.

²Note that projected public image is the image which others present actually receive from him. It should not be confused with the image which he attempts to transmit, which might be called his "presented image".

For simplicity, we assume that the attribute-dimensions which constitute these images do not change much over an occasion, although the particular attributes from these dimensions can change as a result of passing events.

We shall refer to the total desirability which an individual attaches to the attributes constituting his self image and subjective public image, respectively, as his "self image-esteem" and "subjective public image-esteem". Again, an individual is generally not aware of his self image-esteem and subjective public image-esteem until an event occurs which heightens self-consciousness. Note also that, while the attribute-dimensions constituting self image and subjective public image do not change much over an occasion, their esteem can change radically as a result of passing events.

While we shall make extensive use of the concept of "image" we do not delude ourselves concerning its precision, for we are fairly deep in the realm of phenomenology. It is not possible to say just how salient an attribute-dimension must be before it becomes relevant to current self image or public image. We can only say that certain dimensions are more salient on a particular occasion, just as certain norms are more applicable; and that individuals do perceive themselves and one another in terms of different dimensions on different occasions. Similarly, it is not possible to say just how many attribute-dimensions constitute a self image or a public image. We can only say: few enough so that being lower on only one such attribute-dimension makes a distinct difference to an individual. The sensation of embarrassment is one of heightened self-consciousness of a deficient image that is distinctly restricted in content. When an individual trips and falls

before an audience of 60,000, he feels very much like a bumbling fool, all the other desirable attributes in his self identity notwithstanding.¹

We may now state, in compact form, a basic proposition of our theory of embarrassment, some implications of which we shall test empirically: Embarrassment is the psychological state associated with a (momentary) loss of self image-esteem caused by a "simultaneous" loss of subjective public image-esteem.² The major implication from this proposition is the following: both a loss of subjective public image-esteem and a loss of self image-esteem are necessary but not sufficient conditions for embarrassment. This will become clearer if we break this implication into four overlapping sub-implications: (1) there can be no embarrassment without a loss of subjective public image-esteem; (2) there can be no embarrassment

¹While self-consciousness is often taken as a hallmark of states of negative self-perception such as embarrassment, as a friend of mine, George Steuart, pointed out to me, it can also be associated with states of positive self-perception. Consider, for example, a beautiful girl strolling down a crowded beach in a bikini. She is probably self-conscious, but in a pleasant sort of way.

²The term "simultaneous" is used here to emphasize the rapidity of the process; technically it is "immediately preceeding". It should also be noted that we assume the individual and others in his presence are in approximate agreement concerning the relative desirability of attributes. If an individual were devalued by others for lacking an attribute he did not consider desirable, he would suffer no loss of esteem and consequently no embarrassment. For example, a Socialist asked to speak before a Chapter of the John Birch Society would not likely be embarrassed by the derogatory epithet, "radical!", hurled at him from the audience. However, if he tripped and fell on his way to the stage, he would become embarrassed. The critical question is whether the individual and his audience share a conception of the desirability of the undermined attributes. Note, also, that it is extremely difficult to undermine just one or two attributes due to the strong associations between negative attributes. The socialist may be quite content with his self image as a radical, but he realizes that this epithet coming from this audience has other pejorative overtones ranging from stupidity to treason. Hence, he may yet become embarrassed by a loss of such associated attributes.

without a loss of self image-esteem--hence, if self image-esteem can be strongly bolstered by external sources, then a loss of subjective public image-esteem will not lower it and no embarrassment will result;¹ (3) conversely, if self image-esteem is not strongly bolstered by external sources, then a loss of subjective public image-esteem will lead directly to embarrassment; (4) a loss of self image-esteem resulting from any source other than a loss of subjective public image-esteem will not produce embarrassment. In connection with this fourth point we may note that, in some cases, an individual can suffer a loss of self image-esteem through a private awareness of his deficient behavior. But we would argue that the accompanying emotional state would not be embarrassment--perhaps it is shame or some sense of uneasiness lest others find out.

Let us pause for a moment to apply our basic proposition to the analysis of some specific embarrassing incidents. We have proposed that embarrassment stems basically from a deficient public image. Hence, we would argue that, although there are many kinds of embarrassing situations (i.e., situations conducive to embarrassment), all represent various forms of threat to public image. Consider for example, the not so obvious case of being embarrassed by sheer volume of attention (e.g., being introduced to an unfamiliar audience, or being the focal point of "Happy Birthday to You"). We would argue that the essence

¹For example, an individual might be convinced, beyond any doubt, that his behavior had been misinterpreted by others present and seen as stupid, whereas it was actually highly intelligent. In such a case his embarrassment would at least be greatly attenuated. The central point here is that, within our framework, degree of embarrassment can be diminished or increased by factors which counteract or facilitate the loss of self image-esteem stemming from a given loss of subjective public image-esteem.

of such situations is the passive, unstructured nature of such roles. Because it is not possible to project a public image through an expressive stream of behavior, it is not possible to control others' inferences about one's attributes. In fact, it is not even possible to control their focus of attention. The result is a feeling of vulnerability, of foolishness--as if negative attributes were leaking out through non-conscious, deficient aspects of behavior and appearance. If the introduction to an unfamiliar audience culminates in giving a lecture, discomfort ceases soon after beginning (although one is no less the focus of attention), when control over public image is re-established. Similarly, a typical response to the "Happy Birthday" situation is to engage in some humorous expression or behavior--anything that will control the attention and inferences of others.

Consider another embarrassing situation: being profusely praised. On the surface it might seem that this should be just the opposite of embarrassing. Provided the dosage of praise is not intense, it will, in fact, lead to a feeling of pride. But if the praise is profuse, a dilemma appears. One must simultaneously attempt to appear both modest and polite. Hence one can neither accept the praise outright nor deprecate it outright. The result is a partial loss of control over public image and often an awkward vacillation: "Thank you very much . . . but it was really nothing . . . thank you . . . it was nothing." During this vacillation embarrassment may result from a sense of immodesty, or a sense of rudeness, or both.

This form of analysis could be applied in a more or less convincing fashion to many other types of embarrassing situations.

However, for the present, we leave this exercise to the reader and return to our more formal discussion. The general question of what are the defining characteristics of the various sub-classes of embarrassing situations is fascinating in its own right, as well as being relevant to establishing the validity of our view of embarrassment. In Chapter Two we shall review the properties of some of these sub-classes in the context of a factor-analytic study.

Some Factors Affecting Severity of Embarrassment

Our basic proposition on embarrassment may be stated quantitatively in the following manner: greater losses of subjective public image-esteem will exert greater downward pressure on self image-esteem, and greater losses of self image-esteem will be associated with more severe embarrassment. The implications of this extension can serve as a guide to our discussion. Basically, it suggests that an individual may experience more severe embarrassment either because he has suffered a greater loss of subjective public image-esteem, or because he has been less successful at counteracting the downward pressure of any such loss on his self image-esteem. In other words, factors increasing an individual's severity of embarrassment can operate through one or both of two channels: (1) they can act to augment his sensation that his projected public image is being viewed as deficient; (2) they can act to diminish his ability to deny the resulting implication that his self image is deficient.

In Figure 1.1 we illustrate this variable system and the two channels we have been discussing, in the form of a diagram. At the extreme left is the input to the variable system, a deficient

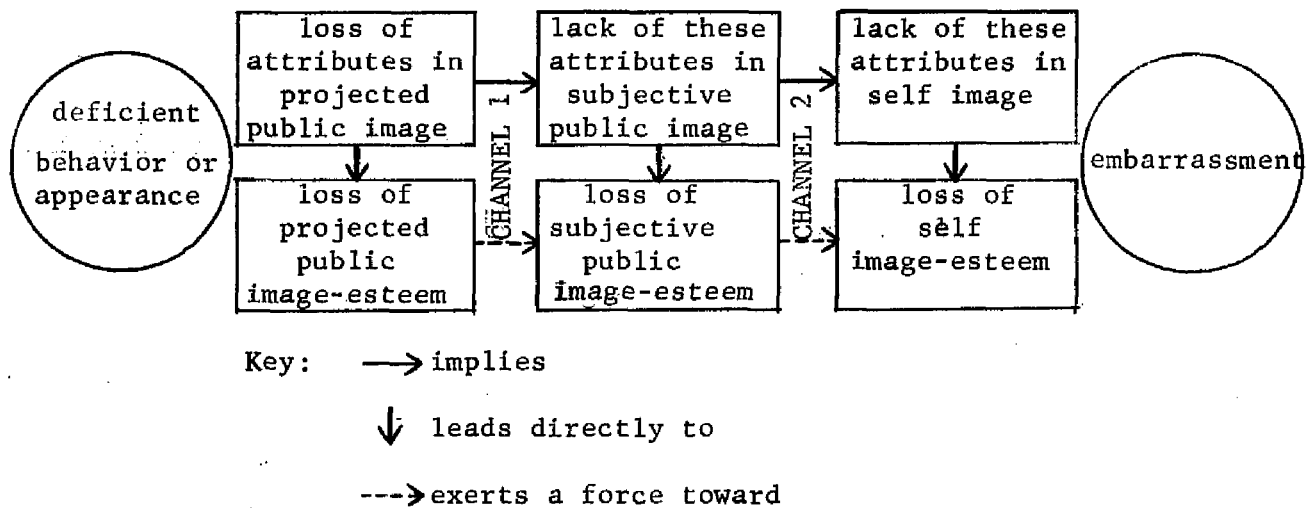


Fig. 1.1--The embarrassment variable system

aspect of behavior or appearance; at the extreme right is the output, the psychological state of embarrassment. Lest confusion arise we should note that the diagram summarizes two parallel perspectives for viewing the variable system. If we follow the dashed arrows in the lower part, we see the system as a dynamic process where the arrows denote forces or pressures. Loss of public image-esteem exerts a downward force on subjective public image-esteem, which in turn exerts a downward force on self image-esteem. From this perspective, factors reducing severity of embarrassment through Channel 1 or Channel 2 would be seen as elements which resist these forces or create counter-acting forces. If we follow the solid arrows in the upper part of the diagram, we see the system as a process of information retrieval, where the arrows denote implications (→) and direct consequences (↓). Loss of certain valued attributes in public image implies a lack of these attributes in subjective public

image, which in turn implies a lack of these attributes in self image. Because on any occasion there tends to be a fairly stable one-to-one correspondence between an attribute and a desirability value, there is an automatic loss of esteem associated with each step of the process. From this perspective, factors reducing severity of embarrassment through Channel 1 or Channel 2 would be seen as elements which mask these implications or create counter-implications. This latter perspective is perhaps more complete. It reminds us that embarrassment is, at its root, a process of receiving and absorbing negative self information. On the other hand, the former perspective is less cumbersome and has the added advantage of reminding us that embarrassment is, at its root, an irrational process whereby one is "forced" to perceive one's self as deficient.¹ In our ensuing discussion we shall explore a few of the factors which can affect severity of embarrassment by operating through the two channels noted in Fig. 1.1. As will be seen, in explaining the impact of these factors, we tend to adopt the information retrieval perspective.

As we noted in our discussion of person-perception, different occasions (and different roles within an occasion) will require the demonstration of somewhat different attributes. Many basic sets

¹ Fig. 1.1 also helps one to visualize the effects of initial embarrassment on ensuing embarrassment which we alluded to briefly in our anatomy of an embarrassing incident. The behavioral and cognitive manifestations of initial embarrassment tend to have three properties: (1) they are themselves instances of deficient behavior (implying weakness and dependency on others); (2) they re-emphasize the fact that a deficiency has been revealed; (3) they disrupt cognitive functioning thereby encouraging further blundering behavior. The first two properties act to make embarrassment both an output and an input to the process of Fig. 1.1. The third property acts to increase the likelihood of further inputs given an output. The net effect is to make it very likely that one cycle of the process will lead directly to at least one more cycle.

of attributes have to be demonstrated on all occasions (e.g., those pertaining to mental and physical coordination). It is beyond the scope of this paper to analyze just why certain attributes are more basic, or why certain attributes will be demanded on specific occasions. The fact remains that so long as an individual can continue to project an image which is appropriate to the occasion, he will be free of embarrassment. Should he experience a failure in his self presentation, then some of the more obvious factors governing the severity of his resulting embarrassment have to do with the precise nature of his failure, its impact on the interaction, and the overt reactions it elicits from others. For example, if his failure is particularly obvious (both to himself and to others) or if it undermines more desirable attributes, embarrassment will be more severe. Such factors operate directly through both of the channels. If the individual's failure is particularly disruptive to the ongoing interaction, or if it elicits other overt indications of displeasure, it will augment his sensation that others view his projected image as deficient. Hence, such factors operate through Channel 1.

These factors, stemming very directly from the particular failure in self presentation, are perhaps less interesting than certain more general factors. For example, it would appear that certain individuals are much more easily embarrassed independent of the actual deficiency in their projected images. Such individuals are simply more "Embarrassable" (i.e., more generally susceptible to embarrassment across all social situations). This suggests the existence of certain factors, in the form of enduring personality traits, which can make an individual quite generally liable to more

severe embarrassment for a given failure in self presentation. If these traits operate through the two channels we noted, they should tend to make an individual either more sensitive or more vulnerable to any threats to his projected image.

One relevant personality trait should be greater empathic ability--greater sensitivity to the perceptions and feelings of others. This trait operates through Channel 1 by heightening an individual's awareness of his image in the eyes of others. If an individual is largely insensitive to the interpretations which others place on his behavior and appearance, he will not lose subjective public image-esteem unless his deficiencies are communicated to him in a relatively overt manner. Another relevant personality trait should be an unstable self-concept (unstable self identity)--a general uncertainty about possessed attributes.¹ This trait operates through Channel 2 by giving an individual less clear information with which to counteract downward pressure on his self image-esteem.² Still another relevant personality trait should be low self esteem--a general feeling of being less adequate. This trait, also, operates through Channel 2 by undermining an individual's efforts to deny the self-implications of a given decrease in subjective public image-esteem.

¹Note that to the extent that there is a one-to-one correspondence between an attribute and a desirability value unstable self-concept implies unstable self esteem. However, unstable self esteem can also arise from uncertainty concerning the correspondence rules relating an attribute to a desirability value. In theory, at least, an individual could have a stable self-concept and unstable self-esteem.

²Wessman et al. (1960) show that persons with more unstable self-concepts are liable to more extreme mood shifts (i.e. shifts in self esteem) as a result of passing events. Note also that young children (in the process of forming their self-concept) and adolescents

image-esteem.¹ Low self esteem is generally associated with another relevant personality trait, low subjective public esteem--a feeling that others generally perceive one as less adequate. This trait operates through Channel 1 by leading an individual more easily to assume that others are interpreting his appearance and behavior for the worse.

This list of personality traits could be extended; but if our basic view of embarrassment is accurate, then an individual who is highly sensitive to the perceptions of others, who is unsure of his attributes, who feels generally inadequate, and who feels others generally perceive him as inadequate--should be highly Embarrassable. The universal capacity for embarrassment probably reflects the fact that any individual has these personality traits to some degree. Through socialization everyone becomes somewhat sensitive to the perceptions and feelings of others. Further, as we noted previously, everyone is ultimately dependent on reflections from others for the formation of his self-concept, and everyone is liable to some uncertainty and insecurity concerning possessed attributes.

We might note that the traits of a highly embarrassed person also make him more susceptible to empathic embarrassment. His general proneness to embarrassment and especially his sensitivity to the

(in the process of changing their self-concept) are especially Embarrassable.

¹Cohen (1959) argues and presents data to show that persons lower in self esteem are more vulnerable to negative self-information (i.e., suffer greater losses of self esteem as a result of such information). Harvey and Clapp (1965) demonstrate the same effect. In addition low self esteem tends to undermine an individual's self confidence leading him to give more weight to external sources of information. Thus, Janis and Field (1959) show that persons with lower self esteem are more persuasible.

feelings and perceptions of others, should make it easier for him to identify with persons in embarrassing predicaments. In a study to be described in Chapter Two we shall attempt to verify that persons with the above noted personality traits are in fact likely to become more severely embarrassed in a wide range of situations.

The factors we noted at the beginning of this section act to increase the embarrassment stemming from a particular failure in self presentation. The personality traits we have just discussed act to increase the embarrassment stemming from any failure in self presentation on any occasion. We now come to an intermediate set of factors which can increase the embarrassment stemming from any failure in self presentation on a particular occasion. We shall refer to an individual's susceptibility to embarrassment stemming from any failure in self presentation on a particular occasion as his "Embarrassment Potential". Unlike Embarrassability which refers to all occasions, Embarrassment Potential refers to a particular occasion.

To avoid confusion we should note at the outset that Embarrassment Potential is partly a function of Embarrassability. If an individual is more susceptible to Embarrassment on all occasions, then he will tend to be more susceptible on any particular occasion. However, as a rule, Embarrassment Potential will be governed less by personality factors and more by factors stemming from an individual's relationship to the occasion. Some of these factors bear an analogy to the personality traits which affect Embarrassability. For example, if an individual is very uncertain about the norms governing an occasion (and hence about how to project an appropriate image), he

will tend to be more sensitive to the reactions of others--much like an individual who is generally more empathic.

Due to the nature of person-perception, the prior impression which an individual believes others have of him is particularly relevant to Embarrassment Potential. Hence, low subjective public image-esteem and unstable subjective public image operate to increase Embarrassment Potential through Channel 1. An individual correctly senses that others present on an occasion will use their prior impressions of him to interpret his current behavior and appearance. If he feels these others have no stable impression of him, he will feel they cannot temper their negative interpretation of his current improprieties. (Hence, it is usually more embarrassing to behave deficiently before strangers than before friends.) Similarly, if he feels these others already have a dubious impression of him, he will feel that they are more likely to place a very negative interpretation on his current improprieties. (Hence, it is usually more embarrassing to behave deficiently before deprecators than before admirers.)

The current impression that an individual has of himself is also relevant to Embarrassment Potential. Just as low self esteem can operate through Channel 2 to make an individual generally more Embarrassable, so low self image-esteem can operate to increase Embarrassment Potential. A person low in self image-esteem, already questions his own possession of the attributes which are relevant to the occasion. Further, he is likely to feel somewhat anxious and hence to be less capable of defending his self image either cognitively or through some rapidly instituted line of face-

work.¹ Note that low self image-esteem need not be the result of having already revealed deficiencies to others present, though this would certainly be sufficient. An individual may feel he lacks the attributes demanded by an occasion for any number of reasons, though, as yet, others at the occasion are not aware of it.

These, then, are some of the factors which can affect Embarrassment Potential on a particular occasion, aside from general Embarrassability.² Other factors could be listed, but these are sufficient for our purposes. If an individual is unfamiliar with the norms which govern an occasion, if he fears he cannot demonstrate the possession of relevant attributes, if he is a relative stranger to others present, and if he has already engaged in an egregiously deficient behavior--then he should have a very high Embarrassment Potential.

The relationship between Embarrassability and Embarrassment Potential, and social control should be fairly clear. The social expectations that govern an occasion are geared to encourage those present to demonstrate the possession of desirable attributes. Hence, an individual knows that if he deviates from these expectations, others will impute negative attributes to him and he will become heir to embarrassment. The severity of his embarrassment

¹Dittes (1961) discusses some of the effects of lowered self image-esteem on cognitive functioning. Dittes and Gollob (1965) show that these effects make a person with lowered self image-esteem more persuasible if he receives a clear communication, and less persuasible if he receives an ambiguous, misleading communication.

²There is, of course, an additional interaction between Embarrassment Potential and Embarrassability. A person who is more Embarrassable will, on the average, have lower self image-esteem and lower subjective public image-esteem on any occasion; especially if he has low self esteem and low subjective public esteem.

will be partly a function of his Embarrassment Potential. Consequently, an individual with a higher Embarrassment Potential, on a particular occasion, will be less likely to deviate from the expectations of others on that occasion. Similarly, an individual who is more Embarrassable in general, will be less likely to deviate from the expectations of others on any occasion. Since all individuals are to some degree Embarrassable, there is a very general motivation to avoid deviant behavior in public. Not only does appropriate behavior prevent embarrassment, but it also reinforces one's sense of possessing desirable attributes. Hence, this general form of social control operates largely through self control--the role of the social environment is merely to establish expectations and then to look on. As Goffman (1955) puts it, "Approved attributes and their relation to face make every man his own jailer; this is a fundamental social constraint though each man may like his cell." (p. 215)

Social Influence Through Embarrassment

The reasoning which underlies our view that embarrassment plays an important role in social control and social influence is, of course, the following: since embarrassment is a negative state, other things being equal, an individual will behave in a manner which is consistent with the termination or avoidance of a loss of subjective public image-esteem. This general form of reasoning underlies all "functional" theories of social influence. Paraphrasing Cancian's (1960) definition of a functional system, we may say that a functional analysis of influence entails two assumptions: (1) all individuals are motivated to maintain (or avoid) a certain goal state; (2) specific behaviors of an individual serve to maintain

(or avoid) this goal state. It follows from these two assumptions that an individual can be influenced to perform certain behaviors by making these behaviors necessary for the maintenance of a positive goal state (or avoidance of a negative goal state).

Different theorists have, of course, made different goal states the pivot point of their analyses. Consider two examples. Festinger (1957) utilizes "maintenance of consistency between cognitive elements" as the basic goal state in his analysis. On the other hand, Katz (1960) utilizes four goal states: (1) maximization of rewards in the environment, (2) protection of the ego from unacceptable impulses, (3) expression of central values, (4) maintenance of frames of reference for understanding the environment.

For our present purposes, the most useful and complete theory of social influence is that of Kelman (1961). Kelman proposes three basic goal states which partly overlap those utilized by Katz: (1) attainment of positive reactions from others, (2) maintenance of satisfying self-defining role-relationships, (3) expression of, or maximization of, values. Kelman labels the process of influence associated with the goal state: attainment of positive reactions from others--"Compliance." From his discussion it is clear that this goal state is the general case of the goal state with which we are particularly concerned: maintenance of a desirable subjective public image. It follows that influence through embarrassment can be viewed as a special case of Compliance.¹ Since this is so,

¹We might note, however, that it also has some elements of another of Kelman's processes: Identification. Because public images have an impact on self images which, in turn, affect self identity, there is a sense in which avoiding embarrassing incidents serves to maintain a satisfying self-definition. Perhaps we should

we can take advantage of Kelman's systematic exposition of the conditions conducive to promoting Compliance, and by extending them, arrive at the conditions conducive to promoting influence through embarrassment. These conditions can be divided into two sub-sets: those governing the external setting, and those governing the internal state of the subject of influence. Let us examine first the conditions which define an external setting which is conducive to influence through embarrassment.

1. Conditions of the External Setting--(1) the agent of influence (O) must be in a position to supply or withhold means needed by the subject of influence (P) for the achievement of his goal state; i.e., O must largely control P's public image and be in a position to communicate tacitly or overtly his disapproval of it to P. (2) O must limit P's set of alternative behaviors; i.e., O must be able to specify the behaviors which will and will not lead to disapproval of P's public image. (3) O must be able to maintain surveillance of P; i.e., O must be able to control and evaluate P's public image utilizing a knowledge of whether or not P performed the desired behaviors.

These three conditions are essentially the necessary ones for creating an external setting that will be conducive to influence through embarrassment. They simply state that it is necessary to

distinguish between two consequences of a deficient behavior: the immediate psychological state of embarrassment, and the more long-range impact it may have for self-definition. Avoiding the behavior to avoid the psychological state would clearly be Compliance, but avoiding it to maintain a satisfying self-definition might be more closely related to Identification. Since our focus is basically on actions which avoid the psychological state, for present purposes, we shall view influence through embarrassment as an instance of Compliance.

have a social situation wherein P's resistance to O's requests will lead to a loss of subjective public image-esteem. We would suggest two further more specific conditions designed to maximize the role of embarrassment. (4) O should maintain face-to-face surveillance of P. This serves to maximize the communication and salience of P's public image to P. (5) O should reject P's initial resistance and persistently repeat his requests. This serves to re-emphasize the disapproval contingent on resistance, and forces P into a prolonged and awkward resistance resulting in continuing losses of subjective public image-esteem. Basically, then, an optimal influence situation might be the following: O, from a face-to-face position, requests specific behaviors of P indicating (more or less overtly) that failure to comply will imply P is deficient, and O continues in this manner as long as possible. The result should be a situation in which P's resistance will lead to increasing embarrassment until the disutility of further embarrassment finally overcomes the disutility of complying.

A survey of the literature on social influence makes it clear that few studies have created influence situations which meet these optimal conditions. In some studies P's resistance is actually unknown to O (Back, 1951; Jackson and Saltzstein, 1958; Kiesler, 1958). In other cases, while P's resistant behavior is known to O's, these O's merely state their own preferred mode of behaving, making no direct attempt to influence P¹ (Asch, 1958; Blake and Brehm, 1954; Crutchfield, 1955). In studies where O makes a direct

¹Deutsch and Gerard (1955) and Argyle (1957) show that such situations are more conducive to influence if O's are face-to-face with P and if O's have some clear stake in P's behavior.

effort to influence P, these efforts generally take the form of brief notes (Kelley and Shapiro, 1954; Raven and French, 1958; Schachter et al., 1951). If face-to-face efforts are made to influence P, they are usually for brief duration (Orne, 1962, 1965; Rosenbaum and Blake, 1955; Rosenbaum, 1956). In only a handful of studies have **persistent**, face-to-face efforts been made by O to influence P (Frank, 1944; Milgram, 1963, 1964, 1965a, 1965b). It will be profitable to review some of the results of the Milgram experiments, since these demonstrate the effect of varying some of the external conditions which are conducive to influence through embarrassment.

One important property of Milgram's studies is that the behavior required of the influenced subject was in no way trivial. The experimenter led the subject to believe that the experiment permitted him to administer a series of increasingly painful shocks to another subject, who was actually a confederate. This situation was always presented in the guise of a learning task wherein the subject acted as the "teacher" and had to shock the "learner" each time the latter made an error. The learner, who was strapped in a chair, deliberately made an error on about three out of every four trials. As the shocks apparently increased in intensity the learner-victim protested more and more stoutly, pleading to be released from the experiment, and finally refusing to respond to the learning task while reacting to each new shock with an agonized scream. In a control condition, where the subject was completely free to choose whatever shock level he desired to administer following each error, subjects generally did not administer levels beyond those where the victim began to protest (only 2% of the subjects administered the maximum

shock) (1964). In the experimental conditions, the experimenter ordered the subject to ignore the victim's pleas and increase the shock level by one unit each time the victim made a new error.¹

It is essential to note that the experimenter had no material means of rewarding the subject for complying, or punishing him for not complying.² However, any experimenter's requests are rooted in a legitimate authority stemming from certain widely accepted norms of a scientifically-oriented society. These norms state that, in the interests of science, it is appropriate for an experimenter to request and obtain a wide range of behaviors from subjects. Hence, as soon as a subject entered the laboratory, he and the experimenter tacitly and automatically entered into just such a mutual understanding or consensus. Further, this consensus was progressively strengthened the longer the subject, himself, reinforced it by remaining a party to it, i.e., by complying with the experimenter's early, apparently reasonable requests. To re-state this in terms directly applicable to embarrassment: by virtue of the nature of the occasion, the subject was motivated to project a public image containing attributes of a desirable subject; and the more he committed himself to such an image, the more he was likely to suffer a loss of subjective public image-esteem for a deficient behavior such as defying the experimenter. We do not wish to argue that subjects in the Milgram experiments obeyed

¹These orders took the following form: "Please continue, the next level is . . . "; "the experiment requires you to go on"; "whether the learner likes it or not you must go on"; "you have no other choice, you must go on". One of these statements was made in reply to each effort by a subject to resist (1965b).

²The subjects were not college students but a representative sample of adults.

purely to avoid embarrassment. We merely wish to point out that the optimal conditions for such compliance were present, and that when these conditions were strengthened or weakened, obedience varied in a manner predictable from our theory.

In one condition, the subject's public image was controlled, not only by the experimenter, but by two confederates who ostensibly were helping the subject with his teaching task. When these confederates reinforced the experimenter's orders by urging the subject to obey, no less than 78% of the subjects were fully obedient (i.e., administered the maximum possible shock level) (1965a). When these confederates undermined the experimenter's orders by themselves refusing to obey and by viewing the subject with apparent disapproval, only 10% were fully obedient (1965a).¹ When only the experimenter was present to control the subject's public image, 65% were fully obedient (1965b). Finally, when the experimenter abdicated his face-to-face presence in favor of issuing orders by phone, only 22% of the subjects were fully obedient (1965b). The difference between these last two figures is particularly noteworthy. It is hard to account for this without suggesting that the subject's public image, and the implied disapproval of it, was much more salient in the face-to-face presence of the experimenter.

This pattern of results, then, suggests that embarrassment may have played an important role in the Milgram experiments. They indicate that sharp variations in degree of compliance will result

¹Probably the confederates' most important role, here, was to reinforce greatly the subject's doubts concerning the validity of interpreting dis-obedience as a sign of deficiency. When the confederates urged him on, the opposite effect was created.

when the external conditions we outlined are varied. Let us now hold these conditions constant, and ask what conditions internal to the subject of influence will make him more prone to comply.

2. Conditions Internal to the Subject of Influence--The only necessary general condition is that P be concerned with the social effect of his behavior, i.e., that he be concerned with avoiding a perceived loss of public image-esteem. If we hold constant the requested behavior and the nature of the external influence setting, then P will be more compliant the more he is concerned about such a loss of subjective public image-esteem. We assume, of course, that his concern will vary directly with the severity of embarrassment likely to result from his efforts to resist O's requests. It follows from our earlier discussion that the subject will be more compliant the higher his Embarrassment Potential. Hence, we have a basic proposition, which we shall attempt to test, relating Embarrassment Potential and social influence: if in a particular situation resisting social influence tends to decrease subjective public image-esteem, then an individual's resistance to such influence will be inversely related to his Embarrassment Potential.

An experiment will be described in Chapter Three in which a systematic effort was made to manipulate subjects' Embarrassment Potentials and to observe their consequent compliance in a standard influence setting. In Chapter Five, where the results of this experiment will be reported, we shall develop a formal model relating embarrassment and social influence. From this model it will be possible to derive a number of additional propositions. But we

shall not pursue this form of influence through embarrassment further in this chapter.

3. Other Variations of the External Setting--the particular structuring of the external setting discussed above is the one we shall use in our own experiment. Condition 5 (i.e., the agent persistently repeats his request) has the effect of making compliance necessary for terminating the subject's embarrassment. We feel that this is probably the strongest form of influence through embarrassment, but certain other forms are almost as potent and should be briefly noted. We might stipulate the following condition in place of Condition 5: before making any request, the agent of influence (O) makes it clear, tacitly or overtly, that failure to comply will be interpreted as a sign of deficiency in the subject (P). In this case, we have a setting where compliance avoids the onset of embarrassment rather than terminating it. (It is not clear that adding this condition to Condition 5 will make the influence setting stronger, for, it may serve to prepare the subject for the influence, instead of permitting him to be caught unawares and thus placing him in a situation which grows rapidly and unexpectedly awkward.) This setting is not unlike that created by Asch (1956) or Rosenbaum and Blake (1955). In both these cases confederates denote the "adequate" mode of responding to a stimulus or request before the subject is asked to respond. In both cases it is clear that embarrassment can be avoided by complying, and that it will not be particularly drawn out by non-compliance. Of course, the Asch setting is complicated by the fact that there may be a series of such situations.

Another way of creating a setting where compliance avoids embarrassment is to structure it so that non-compliance will completely disrupt the interaction, creating an anomie situation which P feels he may not be able to cope with. In short, non-compliance creates a situation where P is likely to lose control over his projected public image. Thus, for example, in the Milgram experiments compliance is contingent on maintaining the existing structure of interaction in a "laboratory experiment" setting. If the subject disobeys the experimenter outright, he disrupts the smooth flow of expectations and plunges himself and the experimenter into a situation where both must improvise--one in which the subject cannot anticipate what may occur next. If disobeying is already deficient, finding the most appropriate manner of doing so is greatly complicated by the unstructuring effect of disobedience. In fact a striking feature of the Milgram data is the degree to which subjects seeking to escape make every effort to do so within the existing structure; i.e., by trying to convince the experimenter that it would be in his own best interest to release them. It seems bizarre that a subject who agitatedly says, "that man may be dead in there," would then proceed to shock him further. But if one realizes that the subject is not talking to himself but rather giving information to the experimenter, then his behavior becomes much more intelligible. Since this bit of information completely fails to sway the experimenter, the subject remains locked in a situation where disobedience is just as deficient and just as damaging to the structure of the interaction. One effect of having confederates who precede the subject in defying the experimenter is to lay down a trail by which the

subject, too, can find his way through the anomie which stands between himself and escape from the unwanted role.

The final form of influence through embarrassment is perhaps the most subtle of all. This form relies largely on empathic embarrassment and necessitates a virtual reversal of many of the conditions outlined in our previous sections. The rationale which underlies it is that a subject of influence will avoid embarrassing an agent of influence, both because this is tactful or polite, and because it avoids empathic embarrassment. The optimal conditions for this form of influence are as follows; (1) O must communicate, tacitly or overtly, to P that O has a very high Embarrassment Potential; (2) O must request specific behaviors of P and indicate to P, tacitly or overtly, that a failure of P to comply will lead O to lose subjective public image-esteem; (3) O must maintain face-to-face surveillance of P at the time when P is to decide whether or not to comply.

The effect of these conditions is to place P in such a position that, if he refuses to comply, he will embarrass an O who is pathetically vulnerable to embarrassment. This general setting is often approached by door-to-door salesmen. Refusing such a salesman is always a slap at his competence. A youthful and shy Girl Scout dispensing cookies has the advantages of strong forms of Condition 1 and 2. Similarly, a somewhat inept, mildly deformed Fuller Brushman with a slight speech impediment, has the advantage of both these conditions. If he can manage to put himself further out on a limb by gaining entrance and unpacking his entire display case, he is virtually assured of some kind of sale. Note that if a legitimate authority makes a

request with complete assurance, as if he felt it were fully within his rights, this tends to create Condition 2--it puts the authority out on a limb; it means that a refusal must call into question his competence. It is not unlikely that this factor too operated in the Milgram experiments. To refuse the experimenter's request was to imply, in no uncertain terms, that the experimenter was incompetent. Subjects were probably loathe to place him in such a position.

CHAPTER II

THE QUESTIONNAIRE STUDY

The research to be reported in this chapter stems from two themes developed in Chapter One. First, we noted that certain persons are apparently more susceptible to embarrassment than others. We postulated the existence of certain personality traits which determined an individual's "Embarrassability" (i.e., his general propensity to suffer from embarrassment). We argued that such personality traits increased Embarrassability by heightening an individual's sensitivity and vulnerability to threats to his projected public image.

Secondly, in Chapter One we also noted that certain social situations are clearly more conducive to embarrassment than others. We postulated the existence of certain properties of a social situation which make it "embarrassing" (i.e., generally conducive to embarrassment). We noted that the extraordinary range of embarrassing situations made it difficult to discern these properties. But, we argued that one general property common to all embarrassing situations was the element of threat to an individual's projected public image.

The aim of the study to be reported in this chapter is twofold: (1) to investigate the degree to which embarrassing situations as a class have common properties, and especially to search for

particularly homogeneous sub-classes; (2) to investigate whether certain postulated personality traits in fact make an individual more Embarrassable. Data for these purposes were gathered by administering a paper-and-pencil questionnaire to 183 male undergraduates enrolled in introductory psychology courses at the University of Michigan.

The Questionnaire

1. The Embarrassment Scale--The heart of the questionnaire was the Embarrassment Scale: 26 items, each describing a different potentially embarrassing situation. For each item the subject was asked to rate, on a continuous scale, how embarrassed he personally would feel in that situation. Two sample items were as follows:

- a) Suppose you were calling up a girl you had just met for the first time in order to ask her for a date.
- b) Suppose you were in a class and you noticed that the teacher had completely neglected to zip his fly.

The following scale appeared below every item:

I would feel	I would feel	I would not feel
acutely embarrassed:	fairly embarrassed:	the least embarrassed:
extremely self-	somewhat self-conscious	not awkward or
conscious, awkward	and rather awkward	uncomfortable
and uncomfortable	and uncomfortable	at all

The twenty-six items were designed to sample a range of different potentially Embarrassing situations. However, the sampling process was not systematic. Ideas for items came from the author's experiences and imagination, from conversations with others, and from a few published articles on embarrassment (Horowitz, 1962; Sattler, 1965; Gross and Stone, 1964; Goffman, 1955, 1956). The items include

situations where ego is threatened (e.g., slipping and falling in a public place), situations where ego perceives that some alter is threatened (e.g., watching a bad comedian on an amateur show), and awkward situations where both ego and alter are threatened (e.g., talking to a person who stutters very badly). An effort was made to exclude situations where the source of embarrassment was predominantly sexual (e.g., states of undress, certain slips of the tongue, improper intimacy). As a class such situations, while clearly embarrassing, were of less interest to the author.

The twenty-six embarrassment items were the only ones created specifically for this study. The remainder of the questionnaire consisted of a number of already existing scales which were expected to measure personality traits relevant to Embarrassability.

2. Empathy--Sensitivity to others' feelings and perceptions was measured by a shortened form of the Literature Empathy Test developed by S. C. Mahoney (1960). This instrument asks a subject to read a number of passages taken from novels and short stories, and then to answer a series of multiple-choice sentence completions from the point of view of the main character in each passage. His answers are then scored as correct or incorrect according to a key developed by Mahoney.¹ Mahoney discusses the construction, reliability, and validity of his test at length in his article (1960), and these

¹The full version of Mahoney's Literature Empathy Test consists of four passages, each with 20 sentence completion items, for a total of 80 items. Since the time required to take the full version exceeded available time, the test had to be shortened. Reliability and validity data gave no basis for selection; hence, the test was shortened quite arbitrarily by using only the first three passages and the first 12 items with each passage. Thus, the version used here includes 36 items.

will not be reviewed here. All indications are that this test is the best available assessor of empathy for administration to single individuals (Norman and Leiding, 1956; Hall and Bell, 1953). Other methods developed by Dymond (1949) and variants thereof (Bender and Hastorf, 1953; Spilka and Lewin, 1959) require pairs of subjects--close friends who guess each other's responses to a series of items. Apart from the fact that such a method was not feasible with the subjects available in this study, it has certain methodological difficulties which are avoided by the Mahoney measure (Hastorf et al., 1955; Hobart and Fahlberg, 1965).

3. Unstability of Self-Concept (instability of self identity)--

This trait was assessed by means of a shortened version of the instrument developed by Brownfain (1951, 1952) and used by a number of others (Cowan, 1954; Steiner, 1957; McGehee, 1957). At one sitting, a subject is asked to rate himself twice on the same series of traits (e.g., intelligence, honesty, maturity). For each trait he is asked to place himself in a certain decile relative to other members of a specified collectivity (e.g., his college class). However, on the first self-rating he is told to take a positive view of himself and to give himself the benefit of any reasonable doubt on each trait (Positive Take). On the second self-rating he is asked to take a negative view of himself and to give himself no benefit of any reasonable doubt (Negative Take). The discrepancy in self-rating, averaged over all traits, between the Positive and Negative Takes is the measure of Unstability of Self-concept.

While this method seems to be the best available, it has some drawbacks. First, it is not clear that an individual is able to

rate himself meaningfully on an abstract trait like honesty or dependability. But assuming he can do so, then the measure literally assesses the degree to which a person is uncertain about his relative position on a trait at a given moment in time. This is clearly one aspect of instability. However, a person with an unstable self-concept is likely to be susceptible to mood shifts which would... inflate and deflate both his Positive and Negative Takes over time (Wessman et al., 1960). This aspect of instability could only be tapped by a test re-test procedure which was not feasible in the present study. One study has shown that, while these two aspects of instability are related, they are not entirely similar (McGehee, 1957). It reports a correlation of .42 between temporal instability and the Brownfain measure.

Brownfain's original instrument contained twenty-five traits. In order to save time, the version included in the questionnaire was cut to ten traits. An effort was made to choose traits which Brownfain had found to be important to college students and whose positive-negative discrepancy scores were well related to total instability score.

4. Self Esteem and Subjective Public Esteem--Two measures of esteem were included in the questionnaire, one developed by Brownfain (1951), the other by Janis and Field (1959). Having decided to use the Brownfain measure of stability, it seemed efficient to include Brownfain's measure of self esteem: a third or "Realistic Take" of his instrument. This is actually the subject's first pass over the traits and he is simply instructed to rate himself as realistically as possible. His average rating on this pass is the measure of self esteem.

In addition to the Brownfain self esteem measure, the Janis and Field "Feelings of Inadequacy" Scale was included in the questionnaire. Unlike the Brownfain instrument, which asks for abstract self-ratings with little or no framework, this scale asks the subject about his feelings and perceptions of himself at more specific times, often in specific situations. Though the scale has generally been used as a measure of self esteem, a reading of the items indicates that it is assessing a much broader feeling of inadequacy than the Brownfain scale. Some items clearly tap self esteem,¹ but a number of others tap subjective public esteem and a concern over it.² Both these facets of esteem should make a person more sensitive and vulnerable to threats to his public image. Hence, the fact that this scale measures a broader feeling of inadequacy than the Brownfain Self Esteem Scale is a distinct advantage for our purposes.

The entire Janis and Field battery was included in the questionnaire, except for four items which described situations resembling to some degree items on the Embarrassment Scale. These were dropped to avoid the possibility of spurious correlations.³

5. Other Measures--The Mandler and Sarason Test Anxiety Questionnaire (TAQ) (Sarason and Mandler, 1952) has been used extensively

¹For example, "Do you ever think you are a worthless individual?" or, "Do you ever feel so discouraged with yourself that you wonder whether anything is worthwhile?"

²For example, "How often do you worry about whether or not other people like to be with you?" or "How often do you feel worried or bothered about what other people think of you?"

³One item asks about fear or anxiety when entering a room where others have already gathered; another asks about fear or worry when speaking in front of a class. The remaining two ask about a general propensity to feel shy or self-conscious.

in risk-taking studies as a measure of "fear of failure". Almost by definition, a person who becomes anxious over tests is a person who fears situations in which he is subjected to intensive evaluation. Thus it seems reasonable to assume that such a person would be particularly sensitive, not merely to failure, but to negative evaluation.¹ It would then follow that such a person would be more Embarrassable. To investigate this possibility, eleven TAQ items dealing with anxiety over course examinations were included in the questionnaire.

Finally, the entire Marlowe and Crowne "Need for Social Desirability Scale" was included in the questionnaire (Crowne and Marlowe, 1964). This scale assesses need for social approval by measuring a subject's tendency to lie about himself in a socially desirable manner. The scale relates well to similar instruments designed to tap a propensity for socially desirable responses on test batteries (Crowne and Marlowe, 1960; Katkin, 1964). It was included in the questionnaire to assess the degree to which the other scales were biased by such a propensity. If the bias were serious, it could then be partialled out by means of this scale.

Administration

Subjects were contacted by phone and asked to come to a designated room to participate in a "questionnaire study". Upon arrival they were given a few brief instructions and asked to fill out the questionnaire at their own pace. Almost all subjects finished in 40 to 60 minutes. The questionnaire began with the Brownfain rating scales

¹It is possible, if not probable, that the underlying cause of this is, again, low self esteem or inadequacy feelings.

which were followed by the Literature Empathy Test. Items from all other scales, presented in a mixed order, formed the remainder. A copy of the questionnaire and instructions may be found in Appendix I. This appendix also includes Mahoney's criteria for scoring his Literature Empathy Test.

Method of Analysis and Results

1. The Factor Analysis of Embarrassing Situations--In order to explore the degree of similarity among embarrassing situations, and to search for particularly homogeneous sub-classes, a factor analysis was performed on the twenty-six items composing the Embarrassment Scale. The assumption underlying this method is as follows: to the degree that peoples' embarrassment in a certain set of situations is highly predictable from their embarrassment in any one such situation, to that degree the set of situations has some common embarrassing properties.

The factor analysis was executed by a program designed for the Institute for Social Research by J. B. Wigle (1964).¹ Since it was hypothesized that all embarrassing situations had certain properties in common and the aim was to delineate more homogeneous sub-classes, an oblimin (oblique) rotation was performed on the factor matrix using Carroll's Biquartim method (Harman, 1960).

The analysis showed that the 26 items had substantial common variance (communalities ranged from .41 to .74 with an average of .60).

¹This program performed a principal component analysis (unities in the diagonal) extracting factors by the principal axis method of Hotelling. Kaiser's criterion of the number of roots of the correlation matrix greater than one was used to determine the number of factors to be extracted.

Seven factors were extracted of which two had very few substantial loadings, making them difficult to interpret. Since 21 of the 26 items had substantial loadings on the five clearly interpretable factors, only these will be discussed here.

Table 2.1 displays the five labeled factors and the embarrassing situations which define each (i.e., items with loadings of approximately .40 or better). The items are numbered according to their order in the questionnaire contained in Appendix I. As can be seen, the analysis suggests that embarrassing situations (at least those included in the questionnaire) can be grouped into five classes. The factor inter-correlation matrix (Table 2.2) indicates that the properties defining these classes are partly overlapping. Three of the classes involve different forms of threat to ego's projected public image (Factors I, II and III); another involves empathic situations where ego witnesses alter's public image being threatened (Factor IV); and the last involves situations with potential sexual overtones (Factor V). In the discussion which follows, we shall outline the properties of each class while noting those properties which are common to two or more classes.

In the situations defined by Factor I, ego is threatened because he has behaved in a way so as to appear, or place himself in danger of appearing, foolish or improper. Generally, ego is responsible for his own predicament. These situations are the most straightforward and classic examples of embarrassing situations.

In the situations defined by Factor II, ego is threatened by being unable to cope with an unexpected event which blocks the normal flow of interaction. This event generally has overtones of

TABLE 2.1Embarrassment Scale Factors, and Items with Major Loadings

(n = 183)

Factor I

Ego behaves in a manner which places him in danger of appearing foolish or improper.

<u>Item</u>		<u>Obtainin Loading</u>
2	You slipped and fell on a patch of ice in a public place, dropping a package of groceries.	.81
64	You tripped and fell while entering a bus full of people.	.63
6	You discovered you were the only person at a particular social occasion without a coat and tie.	.59
9	You were muttering aloud to yourself in an apparently empty room and discovered someone else was present.	.57
37	Your mother had come to visit you and was accompanying you to all your classes.	.38
1	You were just beginning a talk in front of the class.	.36
38	You were a dinner guest and could not eat the main course because you were allergic to it.	.34

Factor II

Ego is a participant in a situation which is made awkward for everyone by an unexpected event which impedes the smooth flow of interaction.

66	You asked someone on crutches if he had suffered a skiing accident and he replied that, no, he was crippled by polio as a child.	.74
68	You were conversing in a small group which included a blind student, when someone next to him unthinkingly made a remark about everyone being "blind as a bat".	.73
39	You were alone in an elevator with a professor who had just given you a bad grade.	.54

TABLE 2.1 (Cont'd)

<u>Item</u>		<u>Oblimin Loading</u>
37	Your mother had come to visit you and was accompanying you to all your classes.	.46
67	You had forgotten an appointment with a professor, and remembered it as you met him in the hall the next day.	.31

Factor III

Ego is the center of attention in a situation where he has not behaved improperly, but in which his expected behavior is either ambiguous or difficult to perform.

<u>Item</u>		<u>Oblimin Loading</u>
65	You were opening some presents while the donors were sitting around watching.	.83
33	You were being lavishly complimented on your pleasant personality by a girl on your first date.	.68
5	A group of friends were singing "Happy Birthday" to you.	.47
63	You were walking into a room full of people you did not know and being introduced to the whole group.	.43
8	You were calling up a girl you had just met for the first time in order to ask her for a date.	.40

Factor IV

Ego is a witness to the embarrassment or potential embarrassment of others.

7	You were watching an amateur show and one of the performers was trying to do a comedy act, but was unable to make anyone laugh.	.88
31	You were watching a play from the audience when it suddenly became clear that one of the actors had forgotten his lines, causing the play to come to a standstill.	.83

TABLE 2.1 (Cont'd)

<u>Item</u>		<u>Oblimin Loading</u>
34	You were in class and you noticed the teacher had completely neglected to zip his fly.	.51
36	You were talking to a stranger who stuttered badly due to a speech impediment.	.47
68	You were conversing in a small group which included a blind student, when someone next to him unthinkingly made a remark about everyone being "blind as a bat".	.40
3	You were a dinner guest, and the guest seated next to you spilled his plate in his lap trying to cut the meat.	.33
Factor V		
Ego is witness to, or involved in, an event having potential sexual overtones.		
35	You entered an apparently empty classroom, turned on the lights, and surprised a couple necking.	.76
10	You walked into a bathroom at someone else's house and discovered it was occupied by a female.	.72
34	You were in a class and you noticed that the teacher had completely neglected to zip his fly.	.57
33	You were being lavishly complimented on your pleasant personality by a girl on your first date.	.38
3	You were a dinner guest and the guest seated next to you spilled his plate in his lap while trying to cut the meat.	.37
1	You were just beginning a talk in front of the class.	.35

TABLE 2.2Inter-Correlation Among the Five Factors

	I	II	III	IV
II	.35	----		
III	.32	.36	---	
IV	.27	.15	.26	---
V	.31	.29	.36	.25

impropriety, but ego is not necessarily responsible for its occurrence. To the extent that ego is responsible, Factors I and II have in common the element of responsibility for an inappropriate event. Such an event not only makes ego appear foolish, but may also leave him with a difficult problem in carrying forward the interaction.

In the situations defined by Factor III, ego is threatened because he is the focus of attention in a situation where his role is poorly defined. In these cases ego's behavior has been proper, but it is not clear how he should proceed. Hence, he experiences some loss of control over the image he is projecting. Because foolish or improper behavior is also likely to call attention to oneself, Factors I and III have in common this focus of attention element. On the other hand, Factor III has in common with Factor II the anomic element--appropriate coping behavior is ill-defined.

All the situations defined by Factor IV clearly involve ego's being a witness to someone else's embarrassment. There is no threat at all to ego, hence this factor might be relatively independent of the previous three. However, a number of the items which define this factor are complex enough to have additional elements which are common to other factors (for example, items 35 and 68).

Factor V, defining situations with potential sexual connotations, is of interest because an effort was made to exclude items in which this was clearly the basis of embarrassment. However, subjects apparently responded to the sexual element common to a number of situations, managing to ferret out somewhat obscure sexual overtones. Because of the effort to exclude such situations, most items which

define this factor are complex enough to have elements in common with the other four factors. Clearly, had more straightforward items been included, this factor would have emerged more solidly. From the author's theoretical framework, it is not clear why sex should be such an overriding cause of embarrassment in social situations. It might be expected, for example, that items 10 and 35 would load primarily on Factors I and II; but in fact the sexual element appears to dominate completely other elements in the situation. Apparently the existence of sexual overtones taps some specific, deeply ingrained feelings of insecurity or impropriety.

In summary, the factor analysis suggests that the class of situations included in the questionnaire can be grouped into a number of more homogeneous sub-classes. These sub-classes are criss-crossed by common properties. Hence, while it is possible abstractly to define a sub-class, in practice it is difficult to find a pure spontaneous example of it. In particular, it is difficult to find instances of threat to ego's public image (defining three of the classes) in isolated form.

Factors I, III and IV each have five items with loadings of almost .40 or better. These items were used to form three sub-scales of the Embarrassment Scale. Each was designed to assess a subject's Embarrassability in the situations defined by that factor. None of the sub-scales have overlapping items.¹

¹The Factor I sub-scale (Emb I - Foolish, Inappropriate Behavior) contains items 2, 6, 9, 37, and 64. The Factor III sub-scale (Emb III - Focus of Attention) contains items 5, 8, 33, 63, and 65. The Factor IV sub-scale (Emb IV - Empathic) contains items 7, 31, 34, 36, and 68.

2. Personality and Embarrassability--We now turn to the investigation of Embarrassability as a function of personality traits. As will be recalled, our theory of embarrassment led us to search for traits which make an individual either more sensitive or more vulnerable to a given threat to his public image. Thus, we suggested that empathy increased Embarrassability by making a person more sensitive to his public image. We suggested that low subjective public esteem increased Embarrassability by making a person more prone to feel his public image is deficient. Finally we suggested that low self esteem and an unstable self-concept increased Embarrassability by making an individual's self image-esteem more vulnerable to the realization that his public image is deficient.

Each subject's score on the Total Embarrassment Scale (all 26 items) was used as the criterion of general Embarrassability. The search for predisposing personality traits was carried out by correlating those scales assessing relevant traits with the Total Embarrassment Scale (and sub-scales). For ease of viewing the results, the scales assessing these traits were all scored so as to lead to the prediction of a positive correlation with the Embarrassment Scale. Table 2.3 displays the full inter-correlation matrix. The last row of this table shows the correlation of each scale with Need for Social Desirability.

Looking first at this last row, it is apparent that most of the scales are susceptible to social desirability biases. Five of the nine correlations are significant at the .01 level. In only one case, however, is this bias alarming (Brownfain Self Esteem). Since Need for Social Desirability correlates only about

TABLE 2.3

Personality and Embarrassment Scales Inter-Correlated

(n = 183)

	Feelings of Inadequacy (Janis & Field)	Self Esteem (Brownfain)	Unstability of Self-Concept	Test Anxiety Questionnaire	Literature Empathy Test	Embarrassment Scale (Total)	Emb I - Foolish, inappropriate behavior	Emb III - Focus of Attention	Emb IV - Empathic
Feelings of Inadequacy (Janis & Field)		.33	.07	.42	.01	.50	.40	.47	.38
Self Esteem (Brownfain)			.30	.15	-.03	.25	.24	.21	.12
Unstability of Self-Concept				-.03	-.02	.05	.06	.09	-.04
Test Anxiety Questionnaire					-.03	.33	.25	.29	.22
Literature Empathy Test						.18	.09	.15	.25
Embarrassment Scale (Total)							.77	.82	.71
Emb I - Foolish, inappropriate behavior								.52	.43
Emb III - Focus of Attention									.52
Need for Social Desirability	-.25	-.43	-.10	-.19	.02	-.19	-.22	-.16	-.17

Correlations larger than .14 are significant at the .05 level

Correlations larger than .17 are significant at the .01 level

-.20 with each of the four Embarrassment Scales, it is largely unnecessary to partial out social desirability when examining the relationships between the personality scales and the Embarrassment Scales.¹

Turning now to the relationship between personality and Embarrassability (box at upper right of Table 2.3), three general points are worth noting. First, unstability of self-concept, as measured by the Brownfain instrument, seems completely unrelated to Embarrassability. Second, the correlations between the remaining personality scales and the Total Embarrassment Scale are all in the predicted direction ranging from .18 to .50. Third, each personality trait relates similarly across the three embarrassment sub-scales except that empathy, as expected, correlates best with Emb IV (the Empathic Embarrassment Sub-scale).

Clearly the Janis and Field Inadequacy Scale is the strongest personality correlate of Embarrassability ($r = .50$). In interpreting the effects of the remaining personality traits, it is important to note that both self esteem and test anxiety have substantial correlations with the Inadequacy Scale (r 's of .33 and .42 respectively).² This suggests that most of the variance in Embarrassability accounted for by these scales is merely a portion of that already accounted for by the Inadequacy Scale. In fact, the correlations of self

¹The correlation between Brownfain Self Esteem and Emb I (Foolish, Inappropriate Behavior), decreases only from .24 to .18 when social desirability is partialled out. In all other cases the decrease would be even smaller.

²Neither of these correlations is surprising. We noted that one factor assessed by the Inadequacy Scale is self esteem. We also noted the likelihood that test anxiety is in part a result of inadequacy feelings.

esteem and test anxiety with the Total Embarrassment Scale drop, respectively, to .12 and .15 when the Inadequacy Scale is partialled out. On the other hand, the Empathy Scale, being completely independent of the Inadequacy Scale, explains an independent, small portion of the variance in Embarrassability. The multiple correlation of the Inadequacy Scale and the Empathy Scale with the Total Embarrassment Scale is .53--adding self esteem and test anxiety increases the multiple correlation to .55.

These results are surprising in a number of ways and we shall now attempt to make better sense of them. We may be able to dismiss the complete lack of association between instability of self-concept and Embarrassability because of the somewhat dubious operationalization of the former variable. But the relatively weak correlation between self esteem and Embarrassability is disturbing, and perhaps the most surprising result is the failure of empathy to emerge as a major factor. It seemed quite reasonable to assume that a person who was more sensitive to others would also be more sensitive to negative perceptions of his public image. It is possible, however, that empathy controls only his sensitivity to his public image, while some other variable controls his propensity to view it as negative.

Pursuing this line of reasoning, we note that some component of the Inadequacy Scale that is largely independent of self esteem plays a major role in causing Embarrassability.¹ In line with our

¹This statement assumes that the component of the Inadequacy Scale which represents self esteem is well assessed by the Brownfain scale. Hence, we can correlate Inadequacy Feelings with Embarrassability partialing out self esteem. The resulting .46 correlation shows that other components of the Inadequacy Scale are relating well to embarrassability.

earlier discussion of the Inadequacy Scale, we may assume that this component represents subjective public esteem and insecurity about subjective public esteem. As we have noted previously, it is reasonable to expect that this component will be a determinant of an individual's perception of his public image. That is, an individual with low and insecure subjective public esteem will tend to assume that his public image is less adequate in an embarrassing situation, than an individual with high and secure subjective public esteem. We must not, however, exclude the possibility that self-esteem can also play this role to a lesser degree. Self esteem and subjective public esteem are, of course, closely related.

If, as the above reasoning suggests, Embarrassability is basically related to personality factors which influence an individual's perception of his public image, then empathy may still be an important conditioning variable. In other words, we might expect the Embarrassability of more sensitive individuals to be more closely related to inadequacy feelings and self esteem than the Embarrassability of less sensitive individuals. To investigate this possibility the sample was broken at the median on empathy, and correlations between the personality scales and the Total Embarrassment Scale were recomputed on each half of the sample. These results are displayed in Table 2.4. The pattern of correlations with the three embarrassment sub-scales exactly parallel these results and are not shown in the table.

As can be seen, when empathy is higher, there is a clear increment in the correlations of both the Self Esteem and Inadequacy Scales with the Embarrassment Scale. (Quite inexplicably, test

TABLE 2.4

Correlations Between the Personality Scales and the
Total Embarrassment Scale Controlling for Empathy

	Total Embarrassment Scale		
	Subjects below the median on the Literature Empathy Test (n = 88)	Subjects above the median on the Literature Empathy Test (n = 95)	
Feelings of Inadequacy (Janis & Field)	.35 ^a (.26)	.65	b
Self Esteem (Brownfain)	.15 ^a (.04)	.32	c
Unstability of Self-Concept	-.03	.11	
Test Anxiety	.49	.21	b

Correlations greater than .20 are significant at the .05 level

Correlations greater than .26 are significant at the .01 level

^aTen subjects in the low empathy group received scores of zero or one on the Literature Empathy Test, suggesting that they misunderstood instructions. If these subjects are removed, the noted correlations drop to .26 and .04. Other correlations are unaffected.

^bThe difference between these pairs of correlations is significant at the .05 level.

^cThe difference between this pair of correlations is significant at the .15 level.

anxiety shows precisely the opposite trend.) Generally, these results show that, while inadequacy is a moderately important variable even when empathy is low, it becomes a very important variable when empathy is high. On the other hand, self esteem is of little consequence when empathy is low, but moderately important when empathy is high. This increased relevance of self esteem may be explained either in terms of the reasoning presented above for the Inadequacy Scale, or in terms of our original formulation: persons low in self esteem are more vulnerable to the realization that their public image is deficient, and the probability of this realization is increased if they are more sensitive to others. It is still surprising, however, that self esteem should be of little relevance when empathy is low.

It must be noted that this revised formulation of the theory, which views empathy as a conditioning variable, leaves unexplained much of the variance of low empathy individuals. Table 2.3 gave little support to the original hypothesis that such individuals were much less Embarrassable. The subjective public esteem component of the Inadequacy Scale does account for some of this variance. Strictly interpreted, Table 2.4 suggests that, in the low empathy group, Embarrassability is related to some aspect of test anxiety which is independent of both inadequacy and self esteem.¹ But this suggestion sheds little light, since the theoretical nature of this component remains obscure.

¹The correlation of test anxiety with Embarrassability remains .40 when Inadequacy and self esteem are partialled.

Summary and Conclusions

A factor analysis of twenty-six embarrassing situations revealed that these situations could be grouped into five relatively homogeneous sub-classes. Three of these sub-classes involved varying forms of threat to public image: appearing foolish or improper, being unable to cope with an unexpected event which impedes the flow of interaction, being the focus of attention in a situation where expected behavior is unclear. A fourth sub-class involved empathic situations where a threat to alter's public image was being witnessed, while the fifth involved the occurrence of events with sexual overtones. It is difficult to assess the exact degree of relationship among these sub-classes due to the relative complexity of the situations used in the factor analysis. But to the degree that this complexity is true to life, these sub-classes, especially the first three, have a number of overlapping elements making it difficult to find pure instances of them.

Average scores on the Total Embarrassment Scale and on the three sub-scales were correlated with scales assessing a number of personality traits, in order to investigate the correlates of Embarrassability. This analysis showed that general Embarrassability was strongly related to feelings of inadequacy, moderately related to test anxiety, weakly related to self esteem and empathy, and unrelated to instability of self-concept. In addition, it showed that empathy was most strongly related to Empathic Embarrassment.

These results suggested certain modifications in our original theory. It was noted that the Inadequacy Scale contained a component, independent of self esteem, which was well related to Embarrassability.

Since this component appeared to represent subjective public esteem and insecurity over subjective public esteem, it was suggested that it played the major role in controlling Embarrassability by influencing an individual's perception of the adequacy of his public image. It was then shown that, while empathy could no longer be viewed as a major controlling variable, it remained an important conditioning variable. Both feelings of inadequacy and self esteem related more strongly to Embarrassability when empathy was high.

We were able to account for a considerable portion of the variance in Embarrassability of more empathic individuals. Such more sensitive persons are Embarrassable to the degree that they feel generally inadequate. Embarrassability among less empathic individuals is less well accounted for. Inadequacy feelings account for some of the variance. The data also suggest that some obscure component of test anxiety may account for an additional portion. Generally, the results seem to question our original expectation that traits making an individual less capable of defending his self image-esteem (e.g., low self esteem and instability of self-concept) would substantially increase Embarrassability. Rather, it appears that traits making an individual more sensitive to his public image (e.g., empathy), and at the same time more likely to perceive it as deficient (e.g., low subjective public esteem), play the much greater role.

CHAPTER III

THE LABORATORY EXPERIMENT: DESIGN AND PROCEDURE

A central proposition in our theory of embarrassment states that embarrassment is the psychological state associated with a temporary loss of self image-esteem caused by a simultaneous loss of subjective public image-esteem. This proposition implied that a number of personality traits should relate to Embarrassability. While the results of the questionnaire study showed that empathy and self esteem played a somewhat lesser role than expected, they are nevertheless in line with this central proposition. It is certainly consistent with this proposition that individuals who are more sensitive to others while at the same time being lower in self esteem and more insecure about their subjective public esteem should be most Embarrassable.

One of the major aims of the laboratory study, to be described next, was to augment this indirect support of the proposition with a more direct test of its implications in a controlled situation. The other major aim was to explore the role of embarrassment in face-to-face influence situations. In the next few sections we shall present an outline of the experimental design and manipulations, reserving the final section for a detailed description of a typical experimental session.

An Overview of the Basic Design

The basic outline of the experimental design stems from the two major propositions stated in Chapter One: Proposition (1) embarrassment is the psychological state associated with a loss of self image-esteem caused by a simultaneous loss of subjective public image-esteem; Proposition (2) if in a particular situation resisting social influence tends to decrease subjective public image-esteem, then an individual's resistance to such influence will be inversely related to his Embarrassment Potential. (It will be recalled that Embarrassment Potential is related to Embarrassability, but is more an inverse function of prior self image-esteem and prior subjective public image-esteem.) Both of these propositions suggest the importance of controlling subjective public image-esteem and self image-esteem in the experiment.

A public was created by having subjects work on a division-of-labor task in four-man teams. The experiment was presented to subjects as a study of organization functioning. Two members of each team were to act as co-ordinating supervisors. These team members were actually confederates of the experimenter and were in a position to criticize or praise a subject's task performance. Hence, the subject's subjective public image-esteem could be readily manipulated by these confederates. Since a subject's portion of the task consisted of solving anagrams, it was possible to control his actual level of performance by controlling the difficulty of his anagrams. His self image-esteem was then further manipulated by conveying to him, or withholding from him, true information about the difficulty of his anagrams. For example, it was assumed that a person who

solved very few of his anagrams with full knowledge that they were extremely difficult would feel less inadequate than a person who solved very few but thought they were of average difficulty.

By means of these manipulations three pairs of conditions were created.¹ In one pair, both self image-esteem and subjective public image-esteem were simultaneously varied in the same direction. In another pair, subjective public image-esteem was varied while self image-esteem was held constant.² In the final pair, self image-esteem was varied while subjective public image-esteem was held constant. A brief description of the three pairs of conditions follows.

a. both self image-esteem and subjective public image-esteem simultaneously varied

1) Public Success (PU_s)--increase in both subjective public image-esteem and self image-esteem--A subject received very easy anagrams which he was led to believe were of average difficulty. He was thus able to solve most of them, and his performance was praised by a confederate who indicated he had done better than anyone else in the group.

2) Public Failure (PU_f)--decrease in both subjective public image-esteem and self image-esteem--This condition is a mirror image of the PU_s condition. A subject received very difficult (mostly impossible) anagrams which he was led to believe were of average difficulty. He was thus unable to solve most of them, and his performance was criticized by a confederate who indicated he had done worse than anyone in the group.

b. subjective public image-esteem varied and self image-esteem held (roughly) constant

¹I am indebted to Dr. John R. P. French, Jr. for helping to clarify my ideas about the manipulations and about the conditions that needed to be created.

²More precisely its range of variation was attenuated; it was not actually held constant.

3) Mitigated Public Success (MPU_S)--increase in subjective public image-esteem (as in the PU_S condition) but a smaller increase in self image-esteem (than in the PU condition).--A subject received very easy anagrams and was able to solve most of them. But he was privately informed by the experimenter that they were in fact quite easy. His performance was praised by a confederate who indicated he had done better than anyone else in the group.

4) Mitigated Public Failure (MPU_f)--decrease in subjective public image-esteem (as in the PU_f condition) but a smaller decrease in self image-esteem (than in the PU_f condition).-- This condition is a mirror image of the MPU_S condition. A subject received very difficult (mostly impossible) anagrams and was unable to solve most of them. But he was privately informed by the experimenter that they were in fact quite difficult. His performance was criticized by a confederate who indicated he had done worse than anyone else in the group.

c. self image-esteem varied and subjective public image-esteem held constant.

5) Private Success (PR_S)--no change in subjective public image-esteem but an increase in self image-esteem.--A subject received very easy anagrams which he was led to believe were of average difficulty. He was thus able to solve most of them and privately received a printed sheet of norms indicating he had done well above average. The confederates and other team members were not aware of his performance and gave no indication that they had any impression of his abilities.

6) Private Failure (PR_f)--no change in subjective public image-esteem but a decrease in self image-esteem.-- This condition is a mirror-image of the PR_S condition. A subject received very difficult (mostly impossible) anagrams which he was led to believe were of average difficulty. He was thus unable to solve most of them and privately received a printed sheet of norms indicating he had done well below average. The confederates and other team members were not aware of his performance and gave no indication of having any impression of his abilities.

Immediately following these manipulations, self-report measures of adequacy of self image and adequacy of subjective public image were obtained from the subject. These served as manipulation checks and as means of operationalizing the two major independent variables: self image-esteem and subjective public image-esteem. At this time

embarrassment was also assessed in a number of ways. The most important was based on a self-report of how the subject felt during the post-task feedback on his performance. The subject described how he felt on a series of eleven polar opposite adjective rating scales. Four relevant scales were combined to form the self-report measure of embarrassment. Immediately following these self-reports, the experiment moved on to an influence attempt which was identical for all conditions.

The influence attempt took the following form. The experimenter explained to each experimental group (a team consisting of two subjects and two confederates) that an effort was being made to study the development of each group over a more extended period than was possible at one session. He then expressed the hope that the team currently in the laboratory would be willing to return "a few more times in the future". He also explained that because of scheduling problems all future sessions would be held during the final week of classes before final exams (a very unappealing time!). It was emphasized that any future participation was entirely voluntary but that since any future participation had to be by the entire team, its four members would have to arrive at a unanimous decision concerning the number of future hours of participation. It was then explained that this decision was to be arrived at through a process of balloting and face-to-face discussion.

The group was also told that all discussion was to be confined to the communication channels established for the earlier portion of the experiment.¹ Since these communication channels permitted

¹Subjects were told that, in line with the experiment's general aim of studying organization functioning, one specific aim was to

the naive subjects to communicate only with the confederates and never with each other, the confederates were in complete control of the decision-making process. The confederates gave false feedback on the results of the balloting and misrepresented the preferences of one subject while engaged in face-to-face discussion with the other. By these methods they led each subject to believe that other group members favored returning seven more hours than he (the subject) had initially voted for on his first ballot. The confederates initially attempted to influence him to return for these seven additional hours, but gradually gave ground in a standardized manner if the subject resisted. During the face-to-face discussions confederates never argued directly with the subject. If, for whatever reason, a subject refused to return for n hours, the confederates asked if $n-1$ hours would be satisfactory. At each such juncture they re-emphasized, in different words, that other group members really wanted to return for more than $n-1$ hours.¹ This process continued, until at some point, the subject agreed. The measure of amount of yielding was simply the number of hours beyond his initial vote for which each subject agreed to come back (a range of 0 to 7).

study decision-making in organizations. This explained the need for maintaining their usual organization communication channels while making the decision:

¹This form of face-to-face influence was patterned after the Milgram studies (1965). There, as in our design, the influencing agent effectively ignores the subject's arguments and simply counters each argument with a re-phrased assertion of his original demand.

Some Hypotheses to be Tested

Before discussing several of the more peripheral aspects of the design we will pause briefly to verify that the major hypotheses may be tested from what has been described so far. First, the following three implications of Proposition 1 (beginning of last section) are testable.

hyp 1.1--A decrease in subjective public image-esteem will produce embarrassment, but an increase, or no change, will not. Hence embarrassment should be greater in the PU_f and MPU_f conditions than in the PR_s , PR_f , PU_s , and MPU_s conditions.

hyp 1.2--When subjective public image-esteem decreases, less embarrassment will result if self image-esteem is independently bolstered. Hence embarrassment should be greater in the PU_f condition than in the MPU_f condition.

hyp 1.3--When subjective public image-esteem remains constant, no embarrassment will result despite changes in self image-esteem. Hence embarrassment in the PR condition should not differ significantly from embarrassment in the PR_f condition.

If each subject's self-report (obtained immediately following his performance feedback) is used to estimate his subjective public image-esteem and his self image-esteem, then hyp 1.1 and hyp 1.3 may be re-stated in the form of correlations.

hyp 1.1a--Over the four combined public conditions (PU_s , MPU_s , PU_f , MPU_f) there should be a substantial negative correlation between subjective public image-esteem and embarrassment.

hyp 1.3a--Over the two combined private conditions (PR and PR_f) there should be a zero-order correlation between self image-esteem and embarrassment.

Proposition 2, concerning social influence, is directly testable.

hyp 2.1--If resisting social influence tends to decrease subjective public image-esteem, then yielding to influence is inversely related to the prior level of both self image-esteem and subjective public image-esteem. Hence the six conditions should fall in the following order on yielding:

$$PU_f > MPU_f \geq PR_f > PR_s \geq MPU_s > PU_s.$$

Note that no specific prediction can be made about the relative yielding on two pairs of conditions: (PR_f and MPU_f , PR_s and MPU_s) unless some assumption is made about the relative importance of the two independent variables. If, as is reasonable, it were assumed that subjective public image-esteem is the major variable, then both \geq signs could be replaced by $>$ signs. In any case, this hypothesis is most efficiently re-stated in the form of a multiple correlation.

hyp 2.1a--Over the six combined experimental conditions, there should be a substantial multiple correlation of self image-esteem and subjective public image-esteem with yielding.

In Chapter Five, where the data on social influence will be analyzed, we shall develop a more general model of embarrassment and social influence. From this model additional testable propositions will be derived. For the present it is clear that Proposition 2 is readily testable within our design.

Peripheral Aspects of the Design

As the basic outline of the experimental design emerged, it became apparent that, by means of minor modifications and additions, various other facets of embarrassment could be investigated. Because of the exploratory nature of the study, the author availed himself of every reasonable opportunity to incorporate and pursue these investigations. Since these parts of the design are more peripheral, and since in some cases they bore little fruit, we shall describe them here only briefly, leaving the details to appendices.

1. Embarrassment and Eye Contact--It would seem that one of the most characteristic responses of an embarrassed individual is a reduction in eye contact with others in his presence. A number of

recent studies have investigated the role of eye contact in social interaction (Exline, et al., 1961; Exline, 1963; Exline et al., 1965; Argyle and Dean, 1965). These studies suggest that eye contact serves as a means of increasing or reducing intimacy. It is consistent with this theory to expect that an embarrassed individual, who feels himself perceived as deficient, will be motivated to reduce intimacy--to increase the social distance of those in his presence.

To investigate the relationship between eye contact and embarrassment, the confederates, whose role it was to praise or criticize the subject's performance, were trained to observe eye contact. In the four public conditions (PU_s , PU_f , MPU_s , MPU_f) each confederate engaged a subject in face-to-face interaction twice prior to the influence attempt: once before and once during the manipulation of subjective public image-esteem. Throughout each interaction the confederate gazed steadily into the line of regard of the subject, thus leaving eye contact entirely under the control of the subject. Whenever the subject was making eye contact, the confederate depressed a hidden foot pedal which was connected to a chart recorder. By this means a continuous record of the subject's eye contact with a confederate was obtained.¹ By comparing the proportion of eye contact prior to the manipulation of subjective public image-esteem with the proportion during the manipulation, it was possible to test the hypothesis that embarrassment reduces eye contact.

¹The distance between subject and confederate was maintained at a constant 3½ feet by having them seated at opposite sides of a card table. It should be noted that the determination of existence of eye contact is quite unambiguous. All studies report very high agreement between confederates and independent observers (Argyle and Dean, 1965; Exline et al., 1965).

2. Embarrassment and Physiological Arousal--Introspection

about embarrassment clearly indicates that it is associated with a general physiological arousal (accelerated heart-beat, often sweating, blushing, tremor, etc.). It had been hoped that a physiological measure relatively specific to embarrassment (e.g., skin temperature) could be incorporated in the experiment. However, difficulties in the procurement and use of necessary equipment coupled with the ready availability of a simple technique for measuring skin resistance led us to use the latter. This technique, described by Kaplan and Hobart (1965), represents a compromise between two extremes on a sensitivity continuum. It simultaneously records slow, base-level changes in skin resistance (Basal Resistance Level) and small, brief changes in skin resistance (Galvanic Skin Response). Our concern was with Basal Resistance Level (BRL): an indicator of general level of arousal (Keinmuth and Kaplan, 1963). Clearly a decrease in BRL is not a specific indication of embarrassment, but if embarrassment is accompanied by increased arousal, it should be reflected by BRL decreases. Apart from this, it was of general interest to explore the physiological impact of the experimental manipulations.

A subject's BRL was recorded continuously by attaching Lükken electrodes to two fingers of one hand at the outset of the experiment. These did not significantly impair his use of this hand--he was free to move his arm, pick up objects, answer a phone, etc. The major events (manipulations) occurring in the subject's environment during the course of a session were noted directly on the output record by an observer.¹

¹The apparatus is described in detail by Kaplan and Hobart (1965). Output is registered on a chart recorder usually calibrated

3. Embarrassment and Behavioral Symptoms--Emotional arousal or tension is often accompanied by overt nervous behaviors. In the hope of devising an observational instrument which could reliably detect emotional arousal in general, and embarrassment in specific, a special observer code sheet was prepared.¹ It consisted of a check list of behaviors often associated with nervous tension. While the subject was solving anagrams either alone or with a confederate present, an observer recorded each instance of such behavior on this check list. Unfortunately, our hopes for this instrument never materialized. While its reliability was good, by and large the behaviors failed to relate to any indices of tension--let alone embarrassment. Both the check list and instructions for its use are contained in Appendix II and will not be discussed here.

4. Embarrassment and Facework--Since embarrassment is an unpleasant emotion, an embarrassed individual should attempt to reduce his embarrassment. As noted in Chapter One, the most straightforward way of accomplishing this is to introduce information which will

to center at 250K Ohms with a range from 0 to 500K Ohms. Ninety-five percent of our subjects remained within this range throughout the experiment. Our concern was with a subject's change in average BRL, over a series of periods at a session, relative to a baseline period. The baseline period came early in the session while the subject worked on a preliminary practice task consisting of average difficulty anagrams. This baseline period BRL was subtracted from all subsequent periods to convert a subject's raw score to a change score. BRL average in any given period was coded by placing a transparent ruler over the given period of the output record and adjusting it visually to equalize the areas above and below the BRL line. A sample of 60 time periods for twenty subjects were re-coded after a two-week interval. Change scores were re-computed and showed that the code re-code reliability of the measure was .92.

¹This instrument was prepared and revised in conjunction with Mr. Zick Rubin.

improve or restore his public image. Goffman (1955) refers to an individual's public image as his "face", and to the process of restoration as "facework". Generally, an embarrassed individual is helped in his facework by others present who have an altruistic as well as practical stake in restoring the individual's status in the interaction. In our experiment, the embarrassed subject interacted only with a confederate, hence it was not possible to observe such cooperative facework. Instead, an effort was made to study the subject's own verbal efforts to improve his public image while engaged in face-to-face interaction with the confederate.

As will be recalled, in both the PU_f and MPU_f conditions, the confederate pointed out the subject's poor performance on the anagram task and criticized him for it. Following this the confederate remained seated across from the subject and proceeded to ask him a series of questions in the form of an open-ended interview.¹ This interview contained several questions which a subject could answer in such a way as to transmit information that would improve his public image, e.g., "Were you aware of any factors that might help to explain your level of performance on the last task?" As the confederate proceeded through the interview, an observer coded the subject's responses. The observer determined whether or not the response was an instance of facework (i.e., an effort to improve his image in the eyes of the confederate) and then coded it into one of eight predetermined categories.

¹The rationale permitting this interview was that it would help the co-ordinating supervisors (confederates) of the team to make more intelligent decisions about future tasks for the team.

Two of these categories represented undefensive responses (accepting failure, straightforward answers) while the remaining six were designed to capture some major forms of facework. Briefly, these facework categories were: changing the subject or focus of attention; introducing mitigating information excusing the performance; introducing self-enhancing, redeeming information; minimizing failure by laughing it off or feigning lack of real effort; denying failure; and "fishing" for reassurance (see Appendix II for a more detailed description of the categories).¹ These six categories might be called "public image-defense mechanisms", for, in certain respects, they parallel such ego-defense mechanisms as repression, rationalization, compensation, and denial.

Two indices were constructed from data obtained by means of this coding system:

a. Total Facework Index--This index ranged from .00 to 1.00 and represented the proportion of a subject's total responses which fell into one of the six facework categories. Observers were capable of assessing this with a good degree of reliability.²

b. Modal Facework Index--This index reflected a subject's most frequently used line of facework. Although there were six possible categories, most subjects fell predominantly into one of

¹I am indebted to Mr. Zick Rubin and Mr. Norman Kohns for suggestions which helped to clarify and simplify the operational definitions of the eight categories.

²At the final training session, five observers simultaneously coded the facework of three subjects from a tape recording. Each subject made about ten codable statements. For each subject, each observer computed a Total Facework Index, yielding 30 pairs of observations. The theoretical range of the index is .00 to 1.00. The maximum difference between any pair of observations was .28. The average absolute-value of the difference between any pair of observations was .09. The arithmetic average of the difference between any pair of observations was .04.

two categories (mitigating information, and minimizing failure). Hence the reliability of this index is difficult to assess. Generally, observers could agree better than 95% of the time on the modal category.

In order to keep the six experimental conditions parallel, the identical interview which served as the basis for assessing facework in the two public failure conditions was given to the other four conditions. The PU_s and MPU_s conditions received it orally, exactly as the PU_f and MPU_f conditions. Since the two private conditions did not interact with a confederate following their anagram task, they received the interview in the form of an open-ended questionnaire. This also permitted the same facework indices to be computed for subjects in the PR_f condition.

Subjects and Experimental Procedure

Subjects used in the experiment were a sub-set of the 183 males used in the questionnaire study. They were not selected systematically and they were not aware of any connection between the two studies. Subjects were contacted by phone between two weeks and one month after taking the questionnaire and asked to "come to the Group Dynamics Laboratory to participate in a group study". Two subjects were scheduled for each experimental session.¹ Their arrival was made to coincide with the arrival of the two confederates.² When all four had arrived, they were taken to a

¹If possible an alternate was also scheduled in case one subject failed to appear. If neither the alternate nor the subject arrived, one observer was no longer needed so he role-played a naive subject.

²All confederates were undergraduates trained for their role by the experimenter (author). Invaluable assistance in the training

small conference room, seated in a semi-circle facing the experimenter, and given their opening instructions. In order to standardize these instructions, they were given from a tape recorder. The subjects were then taken to their experimental rooms and received all ensuing instructions (also from a tape recorder) over a speaker system monitored by the experimenter from an adjacent control room.

The two subjects at each session were always placed in mirror image success-failure conditions (i.e., PU_s - PU_f , MPU_s - MPU_f , PR_s - PR_f). The two particular conditions to be used at a session were scheduled in advance and subjects were randomly assigned to one or the other after their arrival at the laboratory. Confederates and observers were systematically rotated to balance their observation and handling of all experimental conditions. Each session lasted approximately seventy minutes and was followed by a ten-minute period of de-hoaxing.

Fifteen subjects were run in each condition for a total of ninety. Sixty of these participated during a three-week period of the winter tri-mester ending one week prior to the last week of classes. The remaining thirty participated during a two and a half week period of the first summer session ending four and one half weeks prior to the last week of classes. Four subjects had to be discarded and replaced. Two of these indicated they were aware of the manipulations during the post-session questioning. The remaining two voted to return for twenty-five hours on the initial ballot of the decision-making period, making any influence attempt meaningless. The former subjects were in the PU_s and MPU_f conditions, while the latter were

of observers, also undergraduates, came from Mr. Zick Rubin, Mr. Norman Kohns, and Dr. John R. P. French, Jr.

in the PU_s and PU_f conditions.

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This section concludes our overview of the basic features of the experimental design and procedure. (See Table 3.1 for summary of experimental events.) The information contained in these sections is sufficient to permit a reader to skip the following section and proceed directly to the ensuing chapters reporting results. The final section of this chapter contains verbatim transcripts of important instructions to the subjects as well as a more detailed sequential account of a typical experimental session.

TABLE 3.1

SUMMARY OF EXPERIMENTAL EVENTS

NAME OF PERIOD	DESCRIPTION OF EVENTS AND (VARIABLES MEASURED)	
Instruction	receive opening instructions from experimenter	
Practice Task	work on set of average difficulty anagrams (Baseline BRL)	
Preliminary Interaction	4 PUBLIC CONDITIONS	2 PRIVATE CONDITIONS
	face-to-face interaction; consult with confederates on upcoming team job (Baseline Eye Contact)	None
Critical Task	work on easy or difficult anagrams as their part of team job; interact with confederate by phone and face-to-face; MPU _{s/f} receive mitigating information about task from experimenter	work on easy or difficult anagrams alone, for "further practice"
Post-task Feedback	face-to-face interaction; receive supportive or critical evaluation of performance from confederate; receive face-work interview (Eye Contact; MPU _f , PU _f Facework Indices)	read printed sheet containing false performance norms
		take facework interview in questionnaire form (PR _f Facework Indices)
Post-task Questionnaire	answer a brief questionnaire assessing: (Perceived Task Difficulty; Poorness of Self Image; Unfavorableness of Subjective Public Image; Post-task Embarrassment)	
Decision-making Instructions	receive specific instructions on decision-making from experimenter	
Initial Ballot	vote for preferred number of additional hours (Initial Vote)	
Ballot Influence	receive bogus feedback on initial ballot and vote again (Ballot Yielding)	
Face-to-face Influence	face-to-face interaction; receive pressure from confederates toward false consensus (Face-to-face Yielding)	
Post-decision-making Questionnaire	answer brief questionnaire assessing: (Decision-satisfaction Reason for Yielding or Resisting Decision-making Embarrassment)	

A Detailed Account of a Typical Experimental Session

When the two subjects and two confederates arrived at the laboratory, they were seated in a semi-circle facing the experimenter and received the following opening instructions. (In the verbatim transcript of these instructions which follow, it should be clear that the role of staff-man was always filled by a confederate, while the role of line-man was always filled by a naive subject.)

The four of you will be participating in a study here at the Research Center for Group Dynamics. We finally decided to tape record your instructions in order to make them clear and keep them standard for everyone. So, I am just going to turn this recorder on. If you have any questions, we can stop it. I will stop it myself a couple of times to ask for questions.

(The tape recorder was then turned on.)

We are engaged in a study of organizational processes. We are interested in organizational efficiency, in organizational decision-making and in particular, in the effects of the work and structure of an organization on the individuals within it.

We are presently running a large scale pilot study here in the laboratory to help us get some idea of what variables to look for in the real world. We have studied a lot of small organizations in the lab, and tonight it's your turn. We are going to form you into a small organization--a four-man team. We are going to give you a number of jobs to do. We'd like to see how efficiently you can do these jobs given your abilities and the particular organization of your team.

Now your whole team will be working together to achieve a single team score, but each of you will have a somewhat different task to do in order to help the team achieve a high score. Actually, the type of team organization we are now studying has two types of jobs or roles. We call these staff-roles and line-roles. Two of you will be staff-men and two of you will be line-men for your team. The line-men will be responsible for production, for producing semi-finished products from raw materials. The staff-men have a more general responsibility for co-ordinating the team, and organizing the semi-finished product into a finished team product. Now before we go any further, let me assign each of you to your roles.

(The recorder was stopped, and by means of a rigged drawing the naive subjects were assigned line-roles and the confederates

staff-roles. After it was ascertained that everyone was familiar with the concept of "solving anagrams", the tape recorder was started again.)

Your team will have a number of 10-minute jobs to do. On each of these jobs the line-men will be responsible for solving as many anagrams as possible from a list they will be given. In turn, the staff-men will be responsible for picking up the solved anagrams and fitting them correctly in a crossword puzzle matrix, using clues they will be given. Your team score on a job will be based on the number of words correctly placed in the crossword puzzle. You will receive more points per word on harder jobs.

Note that your team score will depend on how skillfully each of you works and how well you work together. The more anagrams the line-men solve, the more words will be available to the staff. And the more efficiently the staff collects these words and places them in the crossword puzzle, the more points your team will have.

Now, before I explain to the staff some of its other duties, let me explain to you your communication network. In most organizations everyone cannot communicate to everyone else. Some persons have the function of co-ordinating the work of various others who are not in direct communication with each other. In fact, the staff-men will be in this position in your organization. The two line-men will not be permitted to communicate with each other, but the staff-men can communicate with everyone, and it is their job to co-ordinate the whole team.

(As the recorder continued, relevant portions of the following diagram, displayed on a blackboard, were pointed out to subjects.)

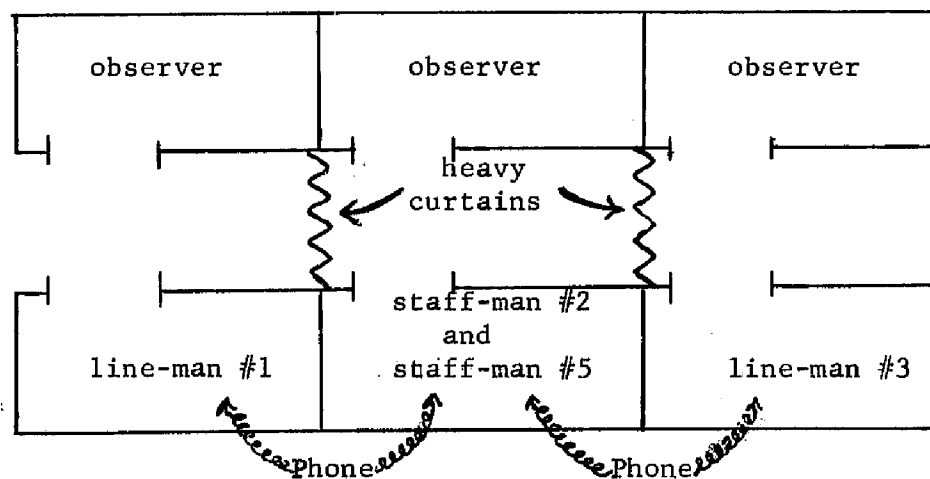


Fig. 3.1--Laboratory Layout

The four of you will be working in three separate offices. The two line-men will have offices at opposite ends of a hall. They will not be permitted to communicate with one another, in fact they will never be permitted to leave their offices. On the other hand, the two staff-men will share a central office between those of the two line-men. They can communicate with each other, of course, and with the line-men. They can do this either by phone or by just walking in and talking.

Now let me explain the other jobs which the staff-men will have aside from fitting solved anagrams into the crossword puzzle on each job.

First, the staff must develop an efficient way of collecting the solved anagrams from their line-men. Each staff-man will have the responsibility of working primarily with one line-man. You might want to work out something with the phone, or you might want to have the line-men write the solved anagrams on a piece of paper for you to pick up. It's entirely up to you to develop an efficient process.

Second, the staff-men must keep their line-men informed on how the team did on each job. Remember that the line-men are isolated and will only know how many anagrams they solved. They won't know how the rest of the team did and they won't know the team score. We will give the staff a Staff Report Form which they will fill out after each job and use to report to the line-men about how the team did. We will also provide the staff with the average score of other teams on similar jobs so you can all see how you compare with other teams.¹

Third, the staff will be responsible for picking particular team jobs. You will have a choice of a number of jobs at three levels of difficulty--consisting of either 4, 5, or 6-letter anagrams. Now, in order for you staff-men to coordinate your team and pick jobs which will maximize its performance, you will have to briefly interview your line-man after each job. To help you with this, we have prepared a standard set of five or six questions to ask your line-men on each job, following your report on the team's performance. Since we want to standardize the questions asked, we'd like the staff-men to stick closely to the questions on the interview form. Don't bother taking any notes but pay careful attention to the line-man's answers.²

Now, the staff-man may be thinking that their job sounds pretty complicated. You will have many things to do, but really each step is rather simple. Once you have the words, putting them in a crossword puzzle should be no problem. As for the Staff Report and Interview of your linemen, it

¹The Staff Report was the basis for the manipulation of subjective public image-esteem.

²The Staff-Interview was the basis for assessing facework.

will all be written out for you. All you have to do is fill in the blanks in accordance with how your team did. Finally, picking a team job will be a little more difficult; it will be a matter of utilizing all the information you have about your team.

Now let me review briefly what will be happening. In addition, of course, I will be giving you specific instructions as we go along once we get started. We'll begin with a brief preliminary practice task. Here you will not be working as a team. Each of you will work alone to become familiar with your task.¹

(Since the private conditions never actually experience a team job where the subjects interact with the confederates, their instructions included the following paragraph inserted at this point.)

[Then we'll go on to a somewhat more elaborate practice job. Here, again, you will not be working together as a team, yet. You will be working by yourselves practicing your particular task in preparation for the team jobs. The line-men will be working on anagrams and the staff-men on a crossword puzzle. Let me emphasize that the practice job is entirely for your personal benefit. It will help you become familiar with the procedure, and will give you a rough idea of your level of ability. We do not want you to discuss your performance on the practice job with any member of your team. Such information will only confuse our results. The rest of the team should know how you did only on the actual team jobs. This is the purpose of the Staff Report and Interview.]

After the practice task [job] I'll ask the staff to consult with their line-men and make arrangements for picking up anagrams on the first team job. Then the staff will pick a job and we'll get started on it. When your time is up, we'll go right on into the first staff₂ report and interview. Then the whole process starts over.

At various times I will ask you to fill out some questionnaires which you will find in manilla envelopes on your desks. They will ask you some of your feelings about the task and the organization.

¹The purpose of this practice task was two-fold. First, it gave subjects familiarity with the situation while convincing them that the anagrams were readily solvable. Second, it yielded baseline measures for BRL, behavioral tension, and eye contact. The last came from the brief interview which followed this task in the public conditions.

²Actually the public conditions experienced only one team job prior to the influence attempt. The private conditions experienced the image-esteem manipulation on the practice job, and no team jobs at all prior to the influence attempt.

(At this point the tape recorder was stopped to answer questions.

The group was then told that the experimenter was interested in investigating the properties of some new equipment for monitoring skin resistance. The staff-men were told that the mobility of their roles would not permit us to attach electrodes to them. After the line-men were assured that the process of attaching electrodes and monitoring would be completely painless, the tape recorder was started once more.)

As you may have gathered, the design of this study gives you a great deal of freedom in determining how your team will operate and develop. If your work is going to be of value to us we must have a record of what was going on. For this reason we have a number of observers keeping track of precisely what is going on. You will see these observers across the hall from you. Try to ignore them. Do not talk to them under any circumstances. They have the very difficult job of trying to keep track of what is happening.

One last thing. A major difficulty in studying organizations in the laboratory is that it is hard to study any one team over an extended period. One hour is hardly enough time. In this study we would like to observe each of our teams over a more extended period. In particular we would like to know how you work together, in the long-run, after considerable practice. Therefore, we hope the four of you will be willing to come back in the future and work together some more. We have chosen the four of you so as to match your free time as nearly as possible. You have very similar work and class schedules. So, coming back is entirely a matter of how much of your free time you would be willing to put into working as a team. Of course, in the future, we will pay you for your time.

Since one of the things we are studying is decision-making in organizations, we will let you decide on this matter of future sessions later on as a team, since this really is a team decision. You can do this after your first team [practice] job when you have a better idea of what this study is about.

At this point subjects were led out of the conference room and into their separate experimental rooms as shown in the previous diagram. After the two observers had attached electrodes to the line-men, the experimenter retired to a control room. All remaining instructions to the team were on tape, and were carried to the

experimental rooms over a speaker system. The two subjects at each session experienced mirror image success-failure manipulations. This was more a matter of convenience and balance than necessity, since all further information about the team and their performance was controlled by the confederates.

The experiment proper began with instructions to begin working on the practice task contained in the appropriately labeled manilla envelope. Each line-man found twelve anagrams of intermediate difficulty which he was to work on for six minutes. (Most subjects solved between five and nine of them. See Appendix III for a list of the anagrams.) During this period observers coded overt behaviors reflecting tension.

Following the practice task, subjects in the private conditions were instructed to proceed directly to solving the anagrams constituting their portion of the practice job. However, in the public conditions staff-men were now instructed to make arrangements with their line-men for picking up anagrams on the team job.¹ During this face-to-face interaction, each confederate obtained a baseline measure of eye contact. After the arrangements had been made, the staff picked a job assignment and gave each line-man his set of twenty anagrams. (See Appendix III for a list of the anagrams.) The anagrams of the failure and success subjects were both conspicuously

¹This arrangement was a mildly complex one involving use of the phone as well as face-to-face communication. A line-man was told to phone each time he solved five anagrams. In addition, the staff-man indicated that, if time permitted, he would come into the line-man's office and take down the words directly to save phoning time. The staff-man invariably did find time to do this, and remained with the line-man for the middle three minutes of the team job. (See Appendix III for the transcript of how these arrangements were made.)

labeled "average difficulty" but in fact one set was very easy while the other was largely impossible. Success subjects averaged sixteen solutions in the nine minutes allotted, while failure subjects averaged two solutions (private conditions did not differ from public conditions).

If subjects were in the MPU_s or MPU_f conditions, they received the following phone call from the experimenter one or two minutes after beginning work on their anagrams.

"Hello line-man #3 (#1)? Listen, this is the experimenter calling. I don't want to disturb everyone else since this only affects you. I was looking up that task #26, which you were assigned, on the sheet I have out here, and apparently it's an unusually difficult (easy) set of anagrams even though it's supposed to be of average difficulty. Everyone that's gotten it has solved very few (a lot of) anagrams from that set. So, I thought I'd better warn you not to worry if you have a lot of trouble with them (not to view this as a typical average difficulty set). Usually an average difficulty task will be quite a bit easier (harder) than this. O.K.?"

After the allotted time on this job had expired, subjects in the private conditions were given a zeroxed sheet labeled "performance norms". While it was not possible to tailor these norms fully to the subject's actual performance, they clearly indicated to the failure subject that he had done well below average while indicating to the success subject that he had done well above average. On the other hand, in the public conditions these norms were transmitted to the subject in the Staff-Report immediately following the job. In this case the norms were tailored to the subject's actual performance (the number of solved anagrams he had transmitted to the staff). The success subject was told he had solved nine more anagrams than the other line-man, while the failure subject was told he had solved nine less. To assure that failure subjects did not assume their anagrams were impossible, the confederate always solved one anagram

for them. As each confederate proceeded with his report he made a number of supportive or critical side remarks.¹ The Staff-Report was immediately followed by the Staff-Interview. During the entire interaction the confederate recorded a subject's eye contact and the observer coded his facework. A complete transcript of the Staff Report and Interview as well as copies of the Private Condition Performance Norm Sheets are included in Appendix III.

After subjects had looked over the performance norm sheet in a private condition or completed the Staff Report-Interview in a public condition, each was asked to fill out a brief questionnaire contained in a manilla envelope on his desk. This questionnaire, labeled "Confidential Job Self-Report", may be found in Appendix III. It contained a number of questions about the subject's perception of himself and other team members. These questions served as manipulation checks and as means of operationalizing several critical independent and dependent variables. Three questions are particularly relevant.

1. How would you rate the objective ease or difficulty of your task on the last job?

This question, answered on a six-point scale of "very easy" to "very difficult", measured the effects of the phone call received by MPU_f and MPU_s subjects.

¹During the staff-report subjects in the MPU_s or MPU_f conditions sometimes brought up the phone call they received from the experimenter. Confederates were instructed to treat such information with disinterested skepticism. They were to begin by acting confused and insisting that the anagrams came from an average difficulty set. If a subject continued to pursue the topic, the confederate was to listen, then dismiss it by saying, "Really? . . . Well, anyway . . .", and then proceed as usual.

2. Taking into account its objective ease or difficulty, how well do you feel you performed on the last task?

This question, answered on a six-point scale of "very well" to "very poorly", assessed self image-esteem.

3. Thus far, what impression do you feel your teammates have of your potential contributions to the team?

This question, answered on a six-point scale of "very favorable" to "very unfavorable", assessed subjective public image-esteem.

The final sheet of the questionnaire contained eleven polar opposite adjective ratings on which the subject was to describe how he felt during the Staff Report-Interview. Since the private conditions had no Staff Report-Interview, but filled out the questionnaire immediately after receiving the norms, they were asked to describe how they felt "at the present time". Four of these polar adjective ratings were combined to form a self-report embarrassment scale-- Post-task Embarrassment. These were: poised-awkward, at ease-self conscious, embarrassed-not embarrassed, free-constrained. Originally only the first three were to form the scale; however, a preliminary analysis revealed that the fourth was closely correlated with each of the other three.

Following completion of the questionnaire, the decision-making period (influence attempt) began. Subjects in all conditions received the following instructions over the speaker system.

Before you go on to your next team job I'd like you to go into a team decision-making process. I indicated to you earlier that we would like to study every team over a longer period than is possible at one session, and that I hoped the four of you might be willing to come back in a couple of weeks as a team and put in some more time. I also indicated to you that we are interested in studying decision-making in organizations. For this reason, I will ask you at this time to make a team decision about the number of hours you would be willing to come back and work together. Since each time you must come back

as a unit, this is really a team decision requiring a consensus. I want you to make this decision using your regular organization communication channels.

Let me remind you of a couple of things. First, we would pay you for any future¹ time. You would receive one dollar an hour for each hour. This is not much but it's all we can afford, I'm afraid.

Second, we would be rotating your jobs in the future--the line-man and staff-men could switch around if they wanted to. We would also be using many different kinds of tasks other than anagrams.²

Third, as I've mentioned, the four of you have been chosen to have matching free time. You have almost identical work and class schedules. Each of you can count on the fact that the other three will be free when you are. As for our research team, we are free to schedule you any time during the week of April 11 to 17. Now, we realize this is the last week of classes before final exams, but this is the³ only time that appropriate facilities will be available to us. However, I can assure you that during this week we are completely flexible. Any time during the day or evening will be fine. So, the only thing for you to think about is the number of hours you would be willing to put in, just before exams, during the week of April 11-17. The exact scheduling will be no problem at all.

O.K. Now I would like you to reach a team consensus on this question of how many hours you will come back. The more time you can put in the better. However, you should feel completely free to choose as you wish. The only requirement is that you reach a unanimous consensus, and that you use your regular organization communication channels. The staff will be in charge of sounding out opinions and getting the consensus. I would like the staff to begin by having everyone vote secretly on the number of hours he wishes to put in. Use the ballots provided in the staff office. They are in an envelope labeled "ballots" right next to the job envelopes. Sometimes you can reach a consensus in a couple of ballots. In any event, it is up to the staff to see that all team members have a share in the decision and that the final decision is unanimous. Will the staff please signal me when the team has arrived at a unanimous decision? O.K., proceed please.

¹Since subjects were participating in the experiment without pay as part of an introductory psychology course requirement, it was important to emphasize that future participation would be on a voluntary or pay basis. If this were not done, some subjects might refuse to participate knowing their requirements was fulfilled, while others might return thinking they were obligated by this requirement.

²The intent here was to minimize each subject's expectations of future failure or success based on his experience to date. Such expectations might spuriously affect a subject's desire to return.

³The intent here was to assure that the subject would be motivated to resist influence. In effect, they would be asked to

Each confederate then proceeded to give his line-man a ballot. After the ballots were collected, each prepared a false report on the results of the balloting. This report was tailored to the line-man's initial vote and showed that the other three members of his team had voted for six, seven, and nine more hours than he had. The feedback was handed to the line-man with the following statement. "Here's the results of the voting. As you can see, there's quite a bit of disagreement so we're going to take another ballot. If that doesn't work, we'll have a discussion or something."¹ When the second ballot was collected, the confederates ascertained which subject had changed most toward the false consensus. Then, they both entered his room²-- one seated himself across the table, while the other stood behind him. Pressure was applied by the seated confederate with the following statements, where 'i' denotes the subject's own initial vote on the first ballot.³

"Hi . . . well, the general consensus seems to be for putting in about (i + 7) more hours; do you think that might be all right with you?"

(If the subject refuses) "Well, --why not?"

"I see . . . well . . . the thing is the rest of us would like to come back for about (i + 6) or (i + 7) more hours; and unless you come back we can't do it, because we have to come back as a team. Could you do it for (i + 6) hours?"

donate upwards of seven hours of their time during a week usually set aside for intensive studying.

¹The second ballot is the first round of the influence attempt. It was included to investigate the differential effect of merely knowing the others wanted to return about seven more hours, as opposed to being pressured face-to-face.

²Confederates went first to this subject because the interaction with him was likely to be briefer, hence minimizing the other subject's waiting time.

³The standing confederate spoke only if the subject invoked

(If subject refuses)

"Well, the other guy wanted (i + 9) hours and he had to come down to (i + 7). Would (i + 5) hours be O.K.?"

(If subject refuses)

(In a slightly annoyed manner). "All right, look, what is the absolute maximum amount of time you can put in?"

(If subject says X hours)

"Well, how about (X + 2) hours--that's only two more hours."

(If subject refuses)

"I don't know what the other guy will say, how about if we compromise at X + 1 hours."

(If subject refuses)

"O.K., I guess X hours will have to do. We'll check with the other line-man to see if he'll go along. Be back in a couple of minutes."

At this point, or whenever the subject capitulated, the confederates moved to the other line-man's room and went through an identical process. Note that in each case the influence attempt is adjusted according to the subject's own vote on the initial ballot. The intent here was to control for initial differences in the subject's willingness to return. Essentially, each influence attempt began from a point approximately seven hours beyond the subject's most preferred point.

When the decision-making (influence) period was over, subjects were asked to fill out another brief questionnaire found in a manilla envelope on their desk. This questionnaire, labeled "Confidential

prior school or job commitments as an excuse for his inability to return. This confederate then noted his own commitments with the following phrase: "Yeah, well I have five exams that next week and I have a ten-hour-a-week job, but you can't work all the time-- know what I mean?"

Decision-making Self-Report¹, may be found in Appendix III. It asked the subject for a number of his perceptions of the decision-making: the initial as well as final discrepancy between his preferences and that of others, his satisfaction with the final decision, and his reasons for yielding or resisting. The final page again contained polar adjective ratings on which the subject was to describe how he felt during the decision-making period. The same four ratings as before were combined to form a self-report measure of embarrassment: Decision-making Embarrassment.

When the questionnaires were completed, subjects believed the experiment would continue with another team job. This was intended to convince subjects that, even if they resisted influence, they would have to continue to interact with other team members for a short period. Hence they could not escape the others' presence immediately after refusing to accede to their demands. On the pretext that the allotted time had elapsed, the experimenter terminated the experiment immediately following completion of the questionnaire.

Subjects and confederates were brought back to the conference room where they had received opening instructions. The subjects were asked for their impressions of the experiment and were strongly encouraged to "guess" its intent apart from what they had been told in the opening instructions.¹ Next the experimental manipulations and their purpose were explained to them in fair detail, in both oral and written form. Subjects were then encouraged to ask any questions of the experimenter, confederates, and observers. When their curiosity seemed satisfied, they were asked to maintain secrecy and dismissed.

¹This method is recommended by Orne (1962) who stresses that subjects are often partly aware of the intent of the experiment but are reluctant to admit it if it appears to displease the experimenter.

CHAPTER IV

THE LABORATORY EXPERIMENT: RESULTS I--TASK-RELATED EMBARRASSMENT

In this chapter we shall examine experimental data through the post-task feedback, reserving all data on social influence for the next chapter. We shall begin by reviewing the manipulation checks and then proceed by examining the data on self-reported embarrassment as a function of the manipulations in the six experimental conditions. . Next we shall attempt to reconfirm some of the results of the questionnaire study. Finally, we shall examine the data on face-work, eye contact, and Basal Resistance Level.

Manipulation Checks

1. Subjective Public Image-Esteem--The manipulation of subjective public image-esteem was checked by the following question asked of all subjects in the Post-task Questionnaire.

"Thus far, what impression do you feel your teammates have of your potential contributions to the team?"

Scores on this question ranged from 1, very favorable, to 6, very unfavorable. We shall refer to this score as Unfavorableness of Subjective Public Image. It, of course, represents the theoretical variable: subjective public image-esteem.

Table 4.1 displays the mean Unfavorableness of Subjective Public Image for each of the six conditions. As can be seen, the means

TABLE 4.1

Unfavorableness of Subjective Public Image

<u>Condition</u>	<u>Mean</u>	<u>Standard Deviation</u>
PU _s (n=15)	1.87	.64
MPU _s (n=15)	1.87	.64
PR _s (n=15)	2.87	.52
PR _f (n=15)	3.33	.62
MPU _f (n=15)	5.20	.78
PU _f (n=15)	5.00	.85

Mean Square Error = .46

Desired Ordering of Means^a: PU_s MPU_s PR_s PR_f PU_f MPU_f

Observed Ordering of Means^b: PU_s MPU_s PR_s PR_f PU_f MPU_f

^a A continuous underlining joining two or more conditions denotes that the means of these conditions should not differ from one another.

^b A continuous underlining joining two or more conditions denotes that the means of these conditions do not differ from one another at the .05 level. Differences were assessed by a two tail t-test using MSE as an estimate of the variance. Strictly speaking, a t-test is not entirely appropriate for such multiple comparisons. However, since the ordering of means was predicted a priori, and since some predictions are predictions of "no difference", a t-test seemed more appropriate than such a posteriori methods as Neuman-Keuls, or Duncan or Scheffé (Winer, 1962).

order themselves almost exactly as desired. The PU_s and MPU_s conditions averaged "fairly favorable", while the PU_f and MPU_f conditions averaged "fairly unfavorable". The PR_s and PR_f conditions had no public image, and hence rated it between "somewhat favorable" and "somewhat unfavorable". The discrepancy between the PR_s and PR_f conditions is slightly larger than desired. While this difference is not significant at the .05 level, it is significant at the .10 level. A closer examination of the data indicates that subjects in the PR_f condition were primarily responsible for this. These subjects tended to imagine that their public image was worse if they felt they had done more poorly on the task, even though their teammates had no knowledge of their performance.¹

2. Task Difficulty--Self image-esteem was manipulated in two ways. Overall, it was controlled by giving subjects either very easy or very hard anagrams. Within the four public conditions, it was further adjusted by conveying to, or withholding from, subjects true information on the difficulty level of their task. If this latter adjustment was to succeed, subjects in the MPU_s condition had to perceive their task as easier than did subjects in the PU_s condition, while subjects in the MPU_f condition had to perceive their task as more difficult than did subjects in the PU_f condition. In the Post-task Questionnaire, all subjects were asked the following question:

"How would you rate the objective ease or difficulty of your task on the last job?"

¹The correlation between self rating on performance (self image-esteem) and self rating on public image (subjective public image-esteem) was $-.01$ in the PR_s condition, but $.59$ in the PR_f condition.

Scores on this question ranged from 1, very easy, to 6, very difficult.

The relevant data from this question are displayed in Table 4.2. As can be seen, the means of the four public conditions fall in the desired order and they are significantly different from one another. Hence, we can assume that the MPU_s and MPU_f conditions accepted the information about task difficulty which was conveyed to them. It remains to be seen whether this information affected self image-esteem in the desired manner.

3. Self Image-Esteem--The manipulation of self image-esteem was checked by the following question asked of all subjects in the Post-task Questionnaire:

"Taking into account its objective ease or difficulty, how well do you feel you performed on this last task?"

Scores on this question ranged from 1, very well, to 6, very poorly. We shall refer to this score as Poorness of Self Image. It, of course, represents the theoretical variable: self image-esteem.

Table 4.3 displays the mean Poorness of Self Image in the six experimental conditions. It is apparent from this table that the attempted adjustment of self image-esteem in the public conditions was not successful. The data show that Poorness of Self Image was almost entirely determined by how many anagrams a subject could solve, i.e., by the success-failure variable. The PU_s and MPU_s conditions, as well as the PU_f and MPU_f conditions, do not differ from one another as intended. Hence in the MPU_s and MPU_f conditions we were unable to hold self image-esteem constant while varying subjective public image-esteem.

TABLE 4.2
Perceived Difficulty of Task

<u>Condition</u>	<u>Mean</u>	<u>Standard Deviation</u>
PU _s (n=15)	3.21	1.24
MPU _s (n=15)	2.33	.84
PR _s (n=15)	3.00	1.12
PR _f (n=15)	5.00	.80
MPU _f (n=15)	5.43	.76
PU _f (n=15)	4.73	.80

Mean Square Error = .95

Desired Ordering of Means^a: MPU_s PR_s PU_s PU_f PR_f MPU_f
 Observed Ordering of Means^a: MPU_s PR_s PU_s PU_f PR_f MPU_f

^aSee Footnotes on Table 4.1, p. 108.

TABLE 4.3
Poorness of Self Image

<u>Condition</u>	<u>Mean</u>	<u>Standard Deviation</u>
PU _s (n=15)	2.07	.80
MPU _s (n=15)	2.33	.62
PR _s (n=15)	1.80	.56
PR _f (n=15)	4.47	1.18
MPU _f (n=15)	5.13	.92
PU _f (n=15)	5.13	.99

Mean Square Error = .76

Desired Ordering of Means^a: PR_s PU_s MPU_s MPU_f PR_f PU_f
 Observed Ordering of Means^a: PR_s PU_s MPU_s PR_f MPU_f PU_f

^aSee Footnotes of Table 4.1, p. 108.

We might suggest two explanations for this. One possibility is that subjects in the success conditions solved so many anagrams (typically 15 to 17 out of 20), while subjects in the failure conditions solved so few (typically 2 or 3 out of 20), that they felt they had done quite well or quite poorly despite a knowledge of the true difficulty of their task. There is in fact an association between number of anagrams solved and Poorness of Self Image in the combined success conditions ($r = -.54, p < .01$) as well as in the combined failure conditions ($r = -.27, p = .07$). This suggests that if success subjects had been prevented from solving quite so many anagrams, and failure subjects had been permitted to solve a few more, knowledge of task difficulty might have had more impact on self image-esteem. Another possibility is that, in the four public conditions, the manipulation of subjective public image-esteem affected self image-esteem. That is, being told they did quite well or quite poorly by a teammate made subjects feel this way despite a knowledge of the true difficulty of their task. There is in fact an association between Unfavorableness of Subjective Public Image and Poorness of Self Image in the combined public success conditions ($r = .52, p < .01$) as well as in the combined public failure conditions ($r = .48, p < .01$). This explanation is further supported by Table 4.3 which shows that PR_f condition subjects did not feel they had done quite as poorly as PU_f and MPU_f condition subjects. This latter explanation and supporting data are consistent with our theory of embarrassment which views decreases in subjective public image-esteem as an important contributing cause of decreases in self image-esteem. (Note, however, that this

may not hold to the same extent for increases in subjective public image-esteem--Table 4.3 shows that PU_s and MPU_s subjects did not feel they did better than PR_s subjects.¹⁾

Whatever the explanation for this unsuccessful manipulation, it indicates that the PU_s and MPU_s conditions, as well as the PU_f and MPU_f conditions, do not differ from one another as intended. Tables 4.1 and 4.3 together show that these pairs of conditions are almost identical in both Unfavorableness of Subjective Public Image and Poorness of Self Image. This suggests that, for many purposes, these pairs of conditions might better be combined, reducing to four the total number of conditions in the experiment. In effect, we have two enlarged public conditions in which self image-esteem and subjective public image-esteem are simultaneously varied positively or negatively; and two private conditions in which subjective public image-esteem is held at a constant (neutral) value while self image-esteem is varied positively or negatively. Of course, in the ensuing analysis, if we have theoretical or empirical reason to believe that the public conditions differ from one another,

¹⁾The tendency for PR_s and PR_f subjects to feel they had done slightly better than their^s counterpart public success and public failure subjects might be due to the fact that they actually solved more anagrams. The data do not entirely exclude this possibility. The mean number of anagrams solved in the success conditions is as follows: PU_s , 15.47; MPU_s , 16.53; PR_s , 17.33 (MSE = 6.64, no pair differs at the .05 level). The mean^s number of anagrams solved by the failure conditions is as follows: PU_f , 2.20; MPU_f , 2.07; PR_f , 2.86 (MSE = 1.38, no pair differs at the .05 level). The apparent slight tendency of PR_s and PR_f subjects to solve more anagrams must be interpreted with great caution. Private conditions were literally private with respect to the performance; hence, the experimenter had no sure means of ascertaining the number of anagrams solved by subjects in these conditions. The best estimate (and the one used to compute the above means) was obtained by recovering the scratch paper on which each subject had worked, at the termination of the experimental session. However, there was no guarantee that

we will present the data for all four public conditions separately.

Testing the Major Hypotheses on Embarrassment

Our major proposition on embarrassment stated that: embarrassment represents a momentary loss in self image-esteem caused by a simultaneous loss in subjective public image-esteem. Three hypotheses, testable from experimental data, were implied by this proposition.

Hyp 1.1 Embarrassment will be greater in the public failure conditions (PU_f and MPU_f) than in the other four conditions (PR_s , PR_f , MPU_s , and PU_s).

Hyp. 1.2 Embarrassment will be greater in the PU_f condition than in the MPU_f condition.

Hyp. 1.3 Embarrassment in the PR_f condition will not differ significantly from embarrassment in the PR_s condition.

Support of Hyp. 1.1 would verify that, if self image-esteem is not held constant, a decrease in subjective public image-esteem is a sufficient condition for embarrassment. Support of Hyp. 1.2 would imply that, if subjective public image-esteem decreases, a simultaneous decrease in self image-esteem is a necessary condition for embarrassment. Support of Hyp. 1.3 would suggest that a decrease in subjective public image-esteem is a necessary condition for embarrassment; or conversely, it would verify that a decrease in self image-esteem is not a sufficient condition for embarrassment.

A subject's embarrassment was assessed by a self-report measure administered to all subjects in the Post-task Questionnaire. This measure consisted of four polar adjective rating scales on which the subject was to describe how he felt during the period when he was

subjects had not worked on their anagrams some more during brief slack periods following the allotted working time (e.g., after finishing self-report questionnaires, or while waiting for confederates during the influence period). Hence, this estimate is likely to be spuriously inflated.

receiving feedback on his performance. Self ratings on the four polar adjectives (embarrassed-not embarrassed, awkward-poised, self-conscious-at ease, constrained-free)¹ were combined to form an embarrassment scale. We shall refer to this scale as Post-task Embarrassment. Scores range from 1 (low) to 9 (high).

Unfortunately, the partial failure of the experimental manipulation makes it impossible to test Hyp. 1.2. The PU_f and MPU_f conditions do not differ in embarrassment, nor would they be expected to, given this manipulation failure. Data relevant to the remaining two hypotheses are displayed in Table 4.4

Hyp. 1.1 was tested by comparing the mean reported embarrassment of the combined public failure conditions, with the mean reported embarrassment of the four other conditions combined. As can be seen from Table 4.4, Hyp. 1.1 is statistically supported: subjects in the two public failure conditions reported feeling more embarrassed than subjects in the other four conditions. Hyp. 1.1a, an alternative formulation of Hyp. 1.1, stated that, over the four public conditions combined, there should be a substantial positive correlation between reported embarrassment and Unfavorableness of Subjective Public Image. On the 60 subjects in the public conditions this correlation is in fact .68 ($p < .01$). The data, then, are very consistent with the proposition that, if self image-esteem is not held constant, embarrassment is a function of decreases in subjective public image-esteem.

¹These four polar adjectives were interspersed with 7 others. Originally only the first three were to form the measure of embarrassment, but a preliminary analysis showed the fourth was highly correlated with the other three. The inter-correlations among the four polar adjective ratings ranged from .57 to .78 with an average of .66.

TABLE 4.4

Post-task Embarrassment (Self Report)

	<u>Condition</u>	<u>Mean</u>	<u>Standard Deviation</u>
1.	PU _s and MPU _s (n=30)	3.42	1.73
2.	PR _s (n=15)	2.77	1.38
3.	PR _f (n=15)	4.25	1.63
4.	PU _f and MPU _f (n=30)	5.90	1.82

Mean Square Error = 2.83

1, 2, 3 vs. 4	$t^a = 4.51$	$p^b < .01$
2 vs. 3	$t^a = 2.42$	$p^b = .02$

^aMSE is used as an estimate of the variance^btwo-tailed

Hyp. 1.3 was tested by comparing the mean reported embarrassment of PR_f subjects with the mean reported embarrassment of PR_s subjects. As can be seen from Table 4.4, Hyp. 1.3 is not statistically supported: PR_f subjects reported feeling more embarrassed than PR_s subjects. Hyp. 1.3a, an alternative formulation of Hyp. 1.3, stated that over the two private conditions combined, there should be a zero-order correlation between reported embarrassment and Poorness of Self Image. Instead, on the 30 subjects in the private conditions this correlation was .63 ($p < .01$). Thus, contrary to expectations, the data imply that a decrease in self image-esteem can be a sufficient condition for embarrassment; or conversely, that a decrease in subjective public image-esteem is not a necessary condition for embarrassment.

We should, however, note several points which may partially salvage our original theoretical assumptions.¹ First, it should be noted that the private conditions were not entirely private. An observer, visible to the subject, was always present. While this observer did not know how the subject had performed on his task, it is probable that the subject felt he had communicated his poor performance to the observer. For instance, it was fairly obvious that he was not writing down many solutions; and it was clear that the observer was watching him closely throughout the performance and while he was receiving his feedback. Hence, while it is true that the subject had no public image relative to his teammates,

¹In the remainder of this paragraph I am indebted to all the members of my dissertation committee who, upon reading my draft, not only supported my own tentative efforts to explain the data and salvage these assumptions, but also suggested a few additional mitigating points. It was truly an instance of "co-operative facework" for which I am grateful!

it is not true that he had no public image at all. Another point to note is that the subject's deficiency (i.e., inability to solve anagrams) was potentially observable in a very imminent sense.

Now that their private practice task was over, PR_f subjects believed they were about to undertake a public performance with the rest of the team. Hence, it is not unlikely that they suffered an anticipatory, imagined, loss of public image-esteem relative to their teammates.

We noted earlier that PR_f subjects, unlike PR_s subjects, did in fact imagine that their teammates perceived them slightly less favorably when they felt their performance was poorer (see Table 4.1 and associated discussion). Further, there is evidence that this unfounded loss of subjective public image-esteem contributed to their embarrassment--a strong correlation between Unfavorableness of Subjective Public Image and Post-task Embarrassment in the PR_f condition ($r = .67, p < .01$). This correlation is not present in the PR_s condition ($r = -.07$).

Finally, it should be noted that Table 4.4 shows that PR_f subjects still remained less embarrassed than public failure subjects ($t = 3.09, p < .01$). Thus, even if we assume that PR_f subjects had neither a public image nor an imaginary public image, the data still imply that decreases in self image-esteem do not produce as much embarrassment as decreases in both self image-esteem and subjective public image-esteem.

All in all, the results reported in this section may be summarized by three statements. First, embarrassment is greatest when both self image-esteem and subjective public image-esteem decrease. Second, embarrassment is least when self image-esteem increases

while subjective public image-esteem remains neutral or increases. Third, assuming that the private condition is truly private, embarrassment is intermediate when self image-esteem decreases while subjective public image-esteem remains neutral.

These results are neither particularly damaging nor particularly supportive of our original proposition on embarrassment. They verify that, if self image-esteem is not held constant, embarrassment is a function of decreases in subjective public image-esteem. However, the role of self image-esteem is left up in the air. We were unable to test whether a decrease in self image-esteem is a necessary condition for embarrassment when subjective public image-esteem is decreased. Further the data indicated that decreases in self image-esteem might be a sufficient condition for embarrassment, though the validity of this conclusion was questioned by the not-so-private nature of the private conditions, and by the "skeleton in the closet" quality of PR_f subjects' poor performances. If we must accept the existence of a mild form of "private" embarrassment, we would suggest that it is mediated by an unfounded (probably anticipatory) decrease in subjective public image-esteem. It would then involve a three-step process. A decrease in self image-esteem leads to an anticipatory, unfounded drop in subjective public image-esteem, which in turn, leads to a further decrease in self image-esteem producing embarrassment.

Embarrassibility and Post-task Embarrassment

The questionnaire study, reported in Chapter Two, showed that particular personality traits made an individual more Embarrassable. Subjects in the four public conditions of the laboratory

experiment were all placed in a potentially embarrassing social situation, i.e., performing in public and being evaluated by their teammates.¹ It is thus of interest to examine whether the personality traits previously found to relate to Embarrassability, relate to reported embarrassment in this situation.

Table 4.5 displays the relevant data. As can be seen, unstability of self-concept does not relate to reported embarrassment, and the remaining personality scales relate positively but somewhat weakly (r 's ranging from .13 to .30). The Inadequacy Scale shows the strongest correlation, as it did in the questionnaire study. While these results are basically in accord with those of the questionnaire study, at first glance some of the correlations seem disappointingly low. We must remember, however, that the situation created in the laboratory was not nearly as subtle as most of those described in the questionnaire items. Table 4.5 shows that the amount of embarrassment reported by subjects in this situation correlates .68 with the perceived unfavorableness of their public image. This perceived unfavorableness is, in turn, almost perfectly correlated with actual, manipulated unfavorableness.² This indicates that the nature of

¹Subjects in the two public success conditions had much less to be embarrassed about and, as we have seen, were in fact less embarrassed. Nevertheless, there were potential sources of mild embarrassment. First, the effects of the manipulation of subjective public image-esteem were not entirely uniform; hence, these subjects differed somewhat in their perception of the favorableness of their public image. More important, the feedback and the facework interview were rather awkward for them since it forced them to dwell on their success, thereby creating a Factor III (focus of attention) type of embarrassing situation. This latter point is supported by the fact that the embarrassment reported by these subjects correlates .56 with the Emb III (focus of attention) sub-scale of the Embarrassment Scale.

²Table 4.1 shows this. There is virtually no overlap in the "Unfavorableness of Subjective Public Image" ratings of the public success and public failure conditions.

TABLE 4.5Correlations Between Personality Scalesand Post-task Embarrassment(Four Public Conditions, n=60)^a

	Post-task Embarrassment (Self Report)
Feelings of Inadequacy (Janis & Field)	.30
Self Esteem (Brownfain)	.18
Test Anxiety Questionnaire	.13
Unstability of Self-Concept	-.03
Literature Empathy Test	.22
Embarrassment Scale (Total)	.25
Unfavorableness of Subjective Public Image	.68

Correlations larger than .21 are significant at the .10 level

Correlations larger than .25 are significant at the .05 level

Correlations larger than .32 are significant at the .01 level

^aIf these personality data are analyzed separately for the public success and public failure conditions, the pattern of correlations in each set of data is very similar to the pattern in the combined data presented above. However, the public success condition correlations are in most cases somewhat higher than the above correlations.

the social situation accounts for much of the variance in reported embarrassment, leaving little to be explained by personality traits. Hence, knowledge of individuals' Embarrassability adds little to our ability to predict their degree of embarrassment in this situation. Knowing only the status of their public image we can account for 46% of the variance in their reported embarrassment. Knowing this plus their general Embarrassability (i.e., their score on the Embarrassment Scale), we can account for 51% of the variance.

The questionnaire study suggested a number of other points about Embarrassability which can be checked from the experimental data. First, it showed that the Inadequacy Scale was better associated with embarrassment among high empathy subjects than low empathy subjects. This finding was re-confirmed in the laboratory. Among high empathy subjects the correlation of inadequacy with Post-task Embarrassment is .39, among low empathy subjects it is .22. Second, the questionnaire study showed that test anxiety was better associated with embarrassment among low empathy subjects than high empathy subjects. This somewhat obscure finding was not confirmed in the laboratory. If anything, there is a slight trend in the opposite direction. The respective correlations are .19 for high empathy subjects and .06 for low empathy subjects.

Finally, in interpreting the results of the questionnaire study, we suggested that a feeling of inadequacy affected embarrassment by leading an individual to imagine that his public image was more negative in an embarrassing situation. This implies that the Inadequacy Scale should relate to Unfavorableness of Subjective Public Image among public failure subjects. This implication is

confirmed. The data show a correlation of .40 ($p < .05$) between these measures.

Embarrassment and Facework

In the four public conditions, when a confederate had finished giving critical or supportive feedback on the subject's performance, he proceeded to ask him a series of open-ended questions. In the two public failure conditions, a subject's answers to these questions were coded for facework by an observer. We shall now examine some of the data obtained from this facework coding system.

During the course of the interview, public failure subjects gave an average of ten responses which could be coded as either undefensive or as instances of facework. The Total Facework Index (the proportion of a subject's responses which were coded as facework) was used as a measure of amount of facework. This index ranged from .00 to .75 with a mean value of .29 and a standard deviation of .15.

Theoretically, facework is an effort to reduce embarrassment by raising subjective public image-esteem and hence self image-esteem. Since the motivation to engage in facework increases as embarrassment increases, there should be a positive association between amount of facework and embarrassment.¹ The data confirm this expectation, showing a correlation of .42 ($p = .02$) between Post-task Embarrassment and the Total Facework Index. The Total

¹Since facework decreases embarrassment, there might not be an association between facework and "post-facework embarrassment". However, our measure of post-task embarrassment reflects degree of embarrassment throughout the whole performance feedback and interview period.

Facework Index is also well correlated with Poorness of Self Image ($r = .32$, $p = .06$) and Unfavorableness of Subjective Public Image ($r = .42$, $p = .02$). It might be expected that a propensity to engage in facework would be associated with certain more stable personality traits. However, none of the traits assessed in the questionnaire study were found to be associated with the Total Facework Index. Hence, while several of these traits lead to greater Embarrassability, none of them leads to more facework.

The Modal Facework Index assessed a subject's most frequently used line of facework. The coding system permitted subjects six lines of facework. Despite this, 77% of the 30 subjects used the same line of facework most frequently: introduction of mitigating information excusing performance. It might be expected that such a "rationalizing" form of facework would be a favorite among college students. However, this result must be interpreted in the context of the experimental situation. First, this line of facework is probably the easiest way to excuse a task-oriented failure. Second, one question in the facework interview virtually invites the subject to introduce any relevant mitigating information (see Appendix III). Third, MPU_f subjects had some very real mitigating information to introduce, since they were privately informed by the experimenter that their anagrams were atypically difficult. It should be noted that this third point apparently had little practical effect. MPU_f subjects used a mitigating line of facework most frequently only slightly more than PU_f subjects (80% of the MPU_f subjects vs. 73% of the PU_f subjects).

Subjects in the PR_f condition received the facework "interview" in the form of a questionnaire. This questionnaire contained the

same six questions asked in the public conditions. However, because a questionnaire "interview" obviously prevents the subject from responding as freely, each subject's questionnaire yielded only six responses which could be coded for facework. In the PR_f condition, the mean value of the Total Facework Index is .25, hence these subjects were apparently no less defensive than the public failure subjects. However, there was less tendency to prefer the mitigating line of facework in this condition: 47% of the 15 subjects used this line most frequently.

Generally, it is not clear how facework should be interpreted in this condition. Facework could not reduce a subject's embarrassment because his teammates were not aware of his responses. It might be viewed as ego-defensive behavior (i.e., an effort on the part of subjects to convince themselves that their performance was not so poor), or it might be viewed as an effort to improve their public image in the eyes of the experimenter who would later read their questionnaire. In the PR_f condition, the Total Facework Index is not associated with either Post-task Embarrassment or Unfavorableness of Subjective Public Image. However, it is well related to Poorness of Self Image ($r = .47$, $p = .05$) which suggests that the ego-defensive interpretation has some validity.

Embarrassment and Eye Contact

During each interaction with a subject, the confederate depressed a hidden foot pedal whenever the subject was making eye contact with him. From this output it was possible to ascertain what proportion of the time each subject maintained eye contact with the confederate. The intent of this procedure was to test

the following hypothesis: an individual will make less eye contact when he is embarrassed than when he is not embarrassed.

In the four public conditions, a base line (non-embarrassed) measure of proportion of eye contact was obtained on each subject during a preliminary interaction early in the experimental session.¹ During the interaction, the confederate and subject made arrangements about the upcoming team task. Each subject's eye contact was again measured during the Post-task feedback interaction which followed the team task. This second interaction had two parts. During the first part (performance evaluation) the confederate discussed the subject's own task performance and either praised him (PU_s and MPU_s conditions), or criticized him (PU_f and MPU_f conditions). During the second part (facework interview), the confederate asked the subject a number of open-ended questions. We may assume that PU_f and MPU_f subjects were most embarrassed during the performance evaluation period. Hence, if our hypothesis about eye contact and embarrassment is correct, PU_f and MPU_f subjects should show a reduction in their proportion of eye contact during the performance evaluation period, relative to the baseline period.²

Table 4.6 displays the relevant mean changes in proportion of eye contact, for each of the public conditions. As can be seen, the data are generally in line with our expectations. MPU_f subjects

¹The mean proportion of eye contact during the baseline period was .305 with a standard deviation of .152. There were no statistically significant differences among conditions.

²Change in Proportion of Eye Contact = (Proportion of Eye Contact During Performance Evaluation Period) - (Proportion of Eye Contact during Baseline Period).

TABLE 4.6
Change in Proportion of Eye Contact
During the Performance Evaluation Period
Relative to the Baseline Period

	<u>Condition</u>	<u>Mean</u>	<u>Standard Deviation</u>
1.	PU _s (n=15)	+0.064	.156
2.	MPU _s (n=15)	+0.033	.135
3.	MPU _f (n=15)	-.152	.115
4.	PU _f (n=15)	-.089	.165

1. vs. null of zero change, $t = 1.09$, $p^a > .40$

2. vs. null of zero change, $t = .55$, $p^a > .40$

3. vs. null of zero change, $t = -2.98$, $p^a < .01$

4. vs. null of zero change, $t = -1.28$, $p^a = .20$

^atwo-tailed

show a substantial decrease in proportion of eye contact, while PU_f subjects show a somewhat smaller decrease. Both PU_s and MPU_s subjects show a very slight increase. The fact that the PU_f condition shows a somewhat smaller decrease than the MPU_f condition is surprising.¹ Had the experimental manipulation succeeded in bolstering the self image-esteem of MPU_f subjects, we would have expected just the opposite; and given that the manipulation did not succeed, we would expect no difference. This result, then raises some doubt about the validity of interpreting decreases in eye contact as an indication of embarrassment. It suggests the need for further validation of this interpretation.

If changes in eye contact occurring in the experimental setting reflected a subject's degree of embarrassment, then we should expect these changes to be correlated with certain other measures. In particular, change in eye contact should correlate negatively with Post-task Embarrassment. It should further correlate negatively with the personality and facework variables previously shown to be related to this measure. Table 4.7 displays the relevant correlations.

Only one correlation in this table clearly supports the embarrassment interpretation of change in eye contact. This correlation shows that change in eye contact is strongly associated with subjective public image-esteem ($r = .50$). The remaining correlations are either weak or slightly in the wrong direction. Note that the correlation of $-.25$ between Post-task Embarrassment and Change in Eye Contact is

¹Statistically this difference is of dubious proportion: $t = 1.28$, $p = .10$, one tailed.

TABLE 4.7

Correlations Between Change in
Proportion of Eye Contact, and
Embarrassment-related Variables
 (Four Public Conditions, n=60)

	Change in Proportion of Eye Contact
Post-task Embarrassment Self Report	-.25
Unfavorableness of Subjective Public Image	-.50
Total Facework Index	.14 ^a
Feelings of Inadequacy (Janis & Field)	.17
Embarrassment Scale (Total)	.05

Correlations larger than .21 are significant at the .10 level.

Correlations larger than .25 are significant at the .05 level.

Correlations larger than .32 are significant at the .01 level.

^aMPU_f and PU_f subjects only (n=30), p > .10.

actually quite weak when we consider that the former measure correlates .68 with Unfavorableness of Subjective Public Image.¹ It is fairly clear that low subjective public image-esteem is responsible for much of the reduction in eye contact. But, apparently, it tends not to operate by producing embarrassment.

We may be able to account for these results by suggesting that change in eye contact is also indicative of another emotion: dislike or hostility. It seems likely that the criticism or praise which subjects received from a confederate, not only affected their subjective public image-esteem, but also their liking of the confederate. The more a subject felt the confederate had an unfavorable image of him, the more he disliked him, and vice-versa. This helps to account for the high correlation between change in eye contact and Unfavorableness of Subjective Public Image. Note also that MPU_f subjects had the clearest grounds for disliking confederates who took a negative view of them. These subjects knew their task had been atypically difficult, but their efforts to introduce this information were brushed aside by the confederate. This would account for the particularly large decrease in eye contact in the MPU_f condition.

Unfortunately we have no direct measure of interpersonal attraction which can be used to bolster this interpretation. However, it is not a novel interpretation. Exline has proposed that a propensity to make eye contact is associated with affiliative tendencies (Exline, 1963). A number of studies investigating both personality and situational factors have supported this (Exline and Winters, 1965).

¹The correlation between Post-task Embarrassment and Change in Eye Contact, partialing out Unfavorableness of Subjective Public Image, is +.14.

All of this does not exclude the possibility that eye contact is also associated with embarrassment, but there is very little evidence that the changes in eye contact observed during our experiment were caused primarily by embarrassment.

Embarrassment and Physiological Arousal

The Basal Resistance Level (BRL) of subjects was monitored continuously throughout the experimental session. From the output it was possible to determine a subject's average BRL level during any given period of the session. Between-subject differences in average BRL were very large, relative to within-subject changes over time: the correlation of subjects' average BRL at the beginning of the experimental session with their average BRL at the end of the session was .90. For this reason, each subject's average BRL, for any given period, was converted to a BRL Change Score by subtracting from it the subject's average BRL during a baseline period.¹ The baseline period was a three-minute period early in the experimental session during which a subject worked on a practice set of average difficulty anagrams. Larger BRL change scores for a given period, denote greater increases in arousal during that period, relative to the baseline period.

Our efforts to measure BRL were beset by numerous difficulties. The equipment itself was not available for the first twelve experimental sessions. Thereafter, other difficulties resulted in the loss of

¹The conversion formula from average BRL in period P to BRL Change Score for Period P is as follows: BRL Change Score for Period P = (Ave. BRL in Baseline period) - (Ave. BRL in Period P). There was a minimal correlation between Baseline BRL and BRL change scores of subsequent periods.

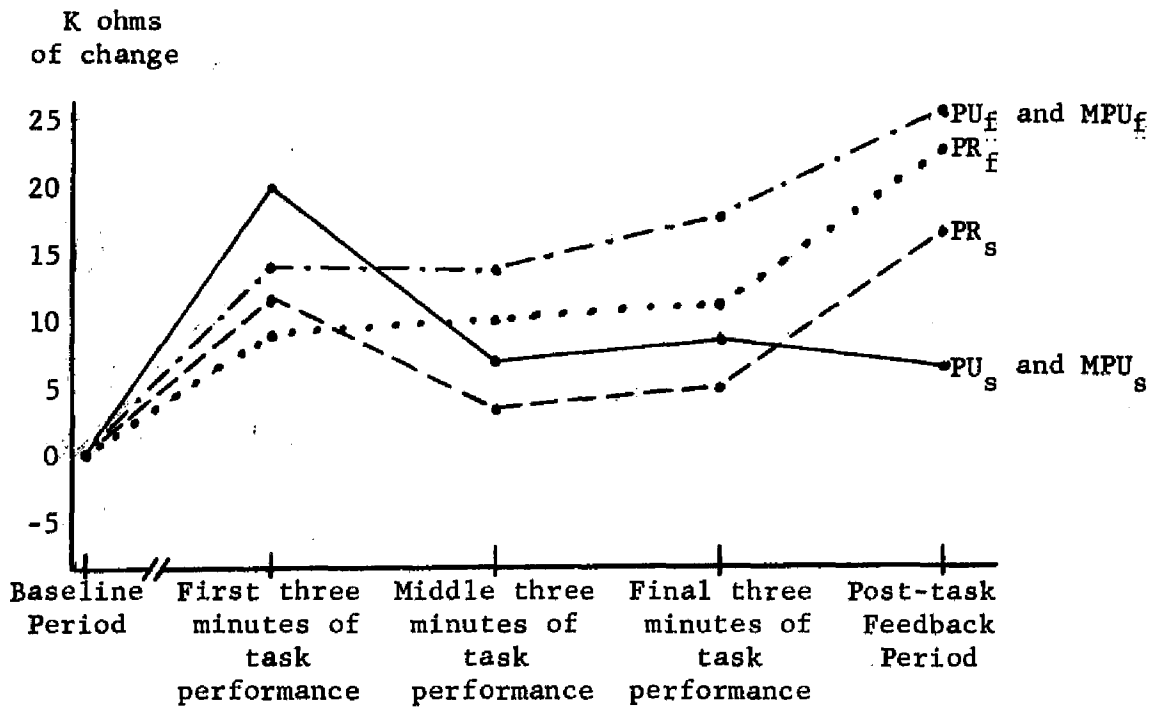
further subjects.¹ In the end, BRL data were obtained on 7 PU_s subjects, 8 MPU_s subjects, 13 PR_s subjects, 14 PR_f subjects, 6 MPU_f subjects, and 8 PU_f subjects. Hence, in reporting the results, we shall combine the two public failure and two public success conditions.

Figure 4.1 shows the trend of mean BRL Change Scores, for the four conditions, over four periods. Three of the periods cover the time when subjects were working on their easy or difficult anagram tasks, while the fourth covers the Post-task feedback period.

If we view the BRL Change Scores as an index of change in arousal, the results are in no way surprising. All subjects show an increase in arousal as their task begins. Thereafter, three of the four conditions show more or less pronounced linear trends over time. The public success conditions show a linear decrease in arousal ($F_{1,56} = 4.23$, $p = .03$). The public failure conditions show a linear increase in arousal ($F_{1,52} = 1.554$, $p = .20$), as does the Private Failure condition ($F_{1,52} = 3.20$, $p = .07$). Because of the increase in arousal during their Post-task Feedback, PR_s subjects do not show a linear trend. Figure 4.1 also indicates that the graphs of the public success and public failure conditions show increasing separation over time, unlike those of the PR_s and PR_f conditions. In particular, they are most widely separated during the Post-task Feedback period. This suggests that BRL change scores during the Post-task Period are partly a function of embarrassment. Table 4.8 displays data

¹Some of these were mechanical difficulties (e.g., improperly attached electrodes), in other cases, when one subject arrived late, the experimenter decided to forego the extra time necessary to attach electrodes. This was particularly true in the public conditions which took longer to run.

FIGURE 4.1
BRL Change Scores Over Four
Consecutive Periods



— PU_s and MPU_s (n=15)
 - - - PR_s (n=13)
 PR_f (n=14)
 - . . - PU_f and MPU_f (n=14)

TABLE 4.8
Correlations Between Post-task Period
BRL Change Score
and Embarrassment-related Variables
(Four Public Conditions, n=29)

	Post-task BRL Change Score
Post-task Embarrassment (Self Report)	.33
Unfavorableness of Subjective Public Image	.32
Feelings of Inadequacy (Janis & Field)	.20
Embarrassment Scale (Total)	.12
Test Anxiety Questionnaire	.46

Correlations larger than .29 are significant at the .10 level.

Correlations larger than .34 are significant at the .05 level.

Correlations larger than .45 are significant at the .01 level.

relevant to this point for the four public conditions. It contains the correlations between Post-task Feedback BRL Change Scores and a number of variables previously found to measure or relate to embarrassment.

Table 4.8 gives support to the suggestion that embarrassment contributes to the general arousal that is tapped by BRL. These results become even more impressive if we consider that none of these correlations is larger than .06 in the combined private conditions, where we would not expect embarrassment to be a significant contributing factor. The particularly high correlation with test anxiety (.46), of course, partly reflects the fact that persons higher in test anxiety become more aroused in evaluative-performance situations. However, it also reflects the fact that such persons are more Embarrassable. Thus, test anxiety does not correlate as highly with the BRL Change Scores of the three Task-performance periods. In chronological order these correlations are .11, .30 and .27. Hence, there is a tendency for high test anxiety subjects to become more aroused over the performance periods--a trend which culminates in the Post-task Feedback period. In general, our results are consistent with the fact that BRL changes reflect changes in arousal. They further suggest that embarrassment contributes to the differential change in arousal produced by public success or failure.¹

¹Perhaps the most mystifying result obtained in this study is the following: in the combined public conditions, empathy correlates with Post-task BRL change $-.38$ ($P = .05$); in the combined private conditions, empathy correlates with Post-task BRL change $+.47$ ($P = .01$). This is directly counter to intuition and highly obscure.

Summary and Conclusions

We began this chapter by reviewing the manipulation checks. These revealed that the manipulation of subjective public image-esteem was successful, but that the manipulation of self image-esteem was only partly successful. Subjects judged their performance, basically, in terms of the number of anagrams they solved. Hence MPU_s and MPU_f subjects felt they had done quite well and quite poorly despite being aware of the true difficulty of their task. Because PR_f subjects did not feel they had done quite as poorly as public failure subjects, it was suggested that the manipulation of subjective public image-esteem may have contributed to MPU_f subjects' negative perception of their performance.

Next we proceeded to test our three major hypotheses on embarrassment. The partial manipulation failure prevented us from testing one of these hypotheses, while a test of the other two yielded mixed results. The data showed that, if self image-esteem was not held constant, loss of subjective public image-esteem was a sufficient condition for embarrassment. But, the data also indicated that, while a loss of subjective public image-esteem was a helpful condition, it was apparently not a necessary condition for embarrassment. The validity of this result, implying the existence of "private" embarrassment, was questioned on the grounds that the private conditions were not entirely private, and that PR_f subjects probably suffered an anticipatory loss of subjective public image-esteem. It was suggested that, if a mild form of "private" embarrassment did exist, it was probably mediated by an imagined (anticipated) decrease in public image-esteem. It was noted that this suggestion

was supported by a comparative analysis of data from the PR_f and PR_s conditions.

In the next section, we verified that many of the results of the questionnaire study could be duplicated with data from the laboratory study. The correlations between Post-task Embarrassment and the personality scales were all in the right direction, though somewhat weak. This, however, appeared to be due to the fact that the unobtrusive nature of the laboratory situation accounted for most of the variance in reported embarrassment, leaving little to be explained by personality traits. It was shown that reported embarrassment was largely a function of the strong manipulation of public image-esteem. We also reconfirmed two questionnaire study results concerning the Inadequacy Scale: Inadequacy was most strongly correlated with Post-task Embarrassment among high empathy subjects; and Inadequacy was correlated with Unfavorableness of Subjective Public Image.

Next we examined the data on facework in the public failure conditions. We verified that a propensity to engage in facework was associated with degree of embarrassment. We also noted that subjects showed a marked preference for the mitigating line of facework.

The data on eye contact, which were examined next, yielded mixed results. While PU_f and MPU_f subjects decreased their eye contact during the post-task interaction, these decreases were primarily associated with Unfavorableness of Subjective Public Image and only secondarily associated with reported embarrassment. In addition, MPU_f subjects showed a slightly stronger tendency to decrease eye contact than PU_f subjects. In line with previous

research, it was thus suggested that, in addition to embarrassment, changes in eye contact reflected a like or dislike of the confederate.

Finally, we verified that BRL change reflects a general change in arousal. We also noted that embarrassment contributed to the differential arousal of public failure subjects, during the Post-task feedback interaction.

CHAPTER V

THE LABORATORY EXPERIMENT: RESULTS II--SOCIAL INFLUENCE

In this chapter we shall examine the experimental data relevant to social influence. We shall begin by developing a mathematical model of embarrassment and social influence. This model will be tailored to the situation created in the laboratory and will permit us to derive predictions about the relationships among a number of measured variables. In ensuing sections we shall test this model and pursue certain topics suggested by the data.

In Chapter One we noted that embarrassment contributes to the maintenance of social control in any social situation where an individual's deviance incurs the apparent negative evaluation of others present (i.e., leads to a loss of subjective public image-esteem). We further argued that embarrassment can play a major role in a social influence setting where there is an agent of influence who overtly rejects the deviant act and makes a persistent, face-to-face effort to induce conformity, thus forcing the subject of influence into an awkward and prolonged defense of his deviance. We saw that few settings created in the laboratory to study social influence conform to these optimal conditions. In almost no study does the agent of influence engage in a persistent, face-to-face effort to overcome the subject's resistance. We examined a series

of experiments by Milgram (1963, 1964, 1965a, 1965b) which testified to the general power of such an influence setting. We saw how these experiments demonstrated the effects of weakening the optimal conditions. Resistance was much greater when a subject was not face-to-face with the agent of influence, and when his public image was partly controlled by resisting confederates.

The influence setting we created in our experiment was designed to meet the optimal specifications for influence through embarrassment. The confederates controlled the subject's public image. Further, they had clear grounds for disapproving of the subject's resistance--these confederates as well as other team members wished to return for future sessions. The inappropriateness of continued resistance was made increasingly clear to the subject by the confederates' tenacity, and by their complete indifference to apparently reasonable arguments. Finally, the face-to-face nature of the interaction augmented the subject's sensation of disapproval, while forcing him into the awkward position of repeatedly contradicting a confederate "to his face."

Since a subject's resistance causes the interaction to become increasingly awkward, and leads to increasing disapproval (loss of public image-esteem), we shall assume that such resistance becomes increasingly embarrassing. In the model to be described below, we shall attempt to specify the parameters needed to predict an individual's response to this influence situation.

A Model of Embarrassment and Social Influence

We shall attempt to describe and analyze a subject's predicament in the laboratory influence situation, using utility theory as a

framework. We note first that each subject has so many hours of time available to him during the last week of classes, which he can allocate to various activities. The confederates attempt to induce the subject to allocate a large number of these hours to future sessions in the laboratory. We can envision each subject as having a utility function which describes the utility (or disutility) to him of allocating various numbers of hours to such future laboratory sessions. We shall refer to this utility function as the Time-utility Function, $U(T)$. In general, we will assume that the nature of this function is such that, while a subject may be favorably disposed to allocating a very limited number of hours to future sessions, beyond this, allocating additional hours will entail increasing disutility for him.¹ Hence prior to the influence attempt (i.e., through the first ballot), we assume that each subject is motivated to return to the laboratory for some small number of hours. And, we assume that he is increasingly motivated to resist efforts to induce him to yield each additional hour beyond this.

However, as soon as the influence attempt proper begins, the other horn of the subject's dilemma appears. For, the more he resists (i.e., refuses to yield additional hours), the more embarrassment he experiences. We can envision each subject as having a second utility function which describes the disutility to him of experiencing the embarrassment associated with refusing to yield each additional hour. We shall refer to this utility function as the Embarrassment-utility Function, $U(E)$. Since we assume that resistance becomes

¹We define disutility as negative utility. Thus, "increasing disutility" is equivalent to "decreasing utility".

increasingly embarrassing, the general nature of this utility function is such that the subject incurs increasing disutility for each additional hour which he refuses to yield.

Using this utility theory framework, then, we see each subject as being faced with a general problem in minimizing disutility. The subject is forced to trade-off the disutility of lost time against the disutility of embarrassment. We assume he does this in such a way as to minimize his total disutility. By making more specific assumptions about the nature of $U(T)$ and $U(E)$, and by introducing parameters having different values for different subjects, we will be able to predict subjects' responses to this influence situation.¹

1. The Time-utility Function--The general nature of each subject's $U(T)$ is the same, but this function will have slightly different characteristics for each subject. We have already noted that, in general, $U(T)$ will have a maximum at some small number of hours, say a , and that it has a negative slope beyond this.² We shall further assume that the slope beyond a is negatively accelerated. That is, we treat time as a resource which becomes increasingly valuable to a subject as it becomes scarcer. Hence each additional hour yielded beyond a , entails an ever-increasing loss of utility. Formally then:

¹In the sections which follow I am indebted to Mr. Terry C. Gleason and Dr. Thomas F. Mayer who were kind enough to read over the semi-final draft, and offer valuable suggestions for increasing the precision of the mathematics as well as the clarity of its presentation. Any remaining imprecision and unclarity is not their responsibility, but rather, persists despite their efforts!

²As we shall see the optimum point, a , will be allowed to differ for different subjects.

Assumption 1.1-- $U(T)$ is a single peaked function with a maximum at $T=a$, and a negatively accelerated slope beyond a .

The general form of the lowest degree polynomial which meets this criterion is as follows:

$$\text{Eq 1.1)}^1 \quad U(T) = (2Ca)T - CT^2;$$

where,

T denotes the number of hours allocated by a subject to future laboratory sessions; and

a denotes the subject's optimum number of hours to be so allocated.

Since the parameter C appears in both terms of Eq 1.1, provided it is a positive constant, it is of little practical importance.

Essentially, it determines the unit of measurement, which is arbitrary, and which we assume to be the same for all subjects. For convenience we set $C = \frac{1}{2}$, and obtain

$$\text{Eq 1.2)} \quad U(T) = aT - \frac{1}{2} T^2.$$

The critical parameter in Eq 1.2 is, of course, a --the subject's optimum number of hours to be allocated to future sessions. We must assume that a has different values for different subjects. Clearly, subjects have differing amounts of available time during the last week of classes. Further, as a result of their particular interests and experiences, they will differ in their desire to allocate such time to laboratory sessions. By making certain assumptions, we can estimate the value of a for each subject.

In particular, we shall assume that each subject's initial vote on the first ballot (prior to any influence attempt) represents

¹In this equation, as well as those to follow, we have omitted the constant term, since its value makes no difference at all to the testable implications of the model.

some compromise between his most preferred number of hours (a), and the number of hours he anticipates other team members will prefer. At the time of this first ballot each subject knows that the whole team eventually must reach a unanimous decision. Hence, we assume that each subject votes in a manner which is most realistic given his own preference and the probable preferences of others. Note that a subject has no sure way of knowing the preferences of others; he must estimate these. Note also that, since subjects differ in their desire to allocate hours for future sessions, any given subject may feel he probably wishes to put in either more or less hours than his teammates. Stated formally:

Assumption 1.2--each subject's initial vote (i) is a weighted average of his most preferred number of hours (a), and his estimate of the number of hours most preferred by others (d).

Hence we have:

$$\text{Eq 1.3) } i = \frac{a + Kd}{1 + K};$$

where \underline{K} (≥ 0) is a weighting factor which represents the relative weight which a subject gives to the preferences of others in deciding on his initial vote. For simplicity we shall treat \underline{K} as a constant for all subjects; it may be thought of as the average weight so given by subjects. Since the manifest purpose of the first ballot is to permit a subject to express his own preference, we can be quite certain that, on the average, subjects give more weight to their own preferences than to those of others. Hence \underline{K} will have a value of less than 1, but beyond this we cannot specify its value on a priori grounds.¹

¹If \underline{K} is estimated directly from the data, its value would be about $\frac{1}{2}$. This indicates that, on the average, our subjects weighted

While we do not need to specify \underline{K} more precisely than this, we will need an estimate of \underline{d} , the subject's perception of the preferences of his teammates. We shall assume that, on the average, subjects can accurately estimate the central tendency of the preferences of other naive subjects. Since every subject is in a position which is identical to that of every other naive subject at the time of the initial ballot, we would argue that this is not unreasonable. It follows from this assumption that, on the average, \underline{d} can be closely approximated by the average value of \underline{a} (i.e., the average of all subjects' "optimum number of hours"). And it follows from this and Eq 1.3 that the average value of \underline{a} will be close to the average value of \underline{i} (i.e., the average of all subjects' votes on the initial ballot). Since we can compute the average value of \underline{i} directly from our data, we will use this to estimate the value of \underline{d} for any given subject. That is, we estimate \underline{d} for every subject by its average value which, given our assumptions, is approximately equal to the average value of \underline{i} . To the nearest whole number the average value of \underline{i} is 2. Substituting 2 for \underline{d} in Eq 1.3 and solving for \underline{a} we have a subject's optimum number of hours (a) expressed as a function of his initial vote (i):

$$\text{Eq 1.4) } a = \lceil K(i-2) \rceil + i.$$

Finally, substituting Eq 1.4 into Eq 1.2 we obtain a subject's $U(T)$ with \underline{a} expressed as a function of \underline{i} .

$$\text{Eq 1.5) } U(T) = K9i-2+i T - \frac{1}{2}T^2.$$

It will be recalled that the influence attempt on each subject was tailored to his initial vote, \underline{i} . Confederates attempted to induce

their own preferences twice as heavily as those of others.

a subject to yield up to seven hours beyond his initial vote. Hence \underline{T} (the total number of hours which a subject allocated to future sessions) is exactly equal to \underline{i} (his initial vote) plus the number of hours which he yielded under influence pressure (Y). Thus, we have:

$$\text{Eq 1.6) } T = i + Y.$$

Finally, substituting Eq 1.6 into Eq 1.5, we have a subject's $U(T)$ as a function of \underline{Y} :

$$\text{Eq 1.7) } U(T) = K(i-2)Y - \frac{1}{2}Y^2 + iK(i-2) + \frac{1}{2}i^2.$$

From this equation we can determine each subject's optimum amount of yielding, (\hat{Y}_t) , given only his utility for time.¹ Differentiating Eq 1.7 with respect to \underline{Y} and solving for the optimum value of \underline{Y} yields:

$$\text{Eq 1.8) } \hat{Y}_t = K(i-2).$$

As is not surprising, Eq 1.8 says that a subject's initial vote (i) is the best indicator of his yielding behavior. This equation reflects the fact that, if a subject voted for more than two hours (i.e., for more than his estimate of \underline{d}), he had to compromise his true preference downward. Hence, even without taking embarrassment into account, we would expect such a subject to yield (i.e., move toward his optimum preference) during the influence attempt. Conversely, if a subject voted for less than two hours, we would not expect him to yield because his optimum was below his initial vote.

2. The Embarrassment-utility Function--Embarrassment does not become a factor for the subject until he receives feedback on the first ballot. At this point, he can begin to anticipate that resisting

¹Note that we have not yet introduced the Embarrassment-utility Function.

the apparent consensus will entail a potentially unpleasant interaction. For our purposes, a subject's resistance (R) may be best defined as the compliment of his yielding (Y). If a subject yields the full seven hours, his resistance is zero; if he yields zero hours, his resistance is maximum. Hence, we have:

$$\text{Eq 2.1)}^1 \quad R = 7 - Y.$$

We assume that being embarrassed has a negative utility (i.e., disutility) to a subject which is equal to his degree of embarrassment (E). Hence:

$$\text{Eq 2.2)} \quad U(E) = -E.$$

Our most critical assumption is that a subject's degree of embarrassment (E) increases directly with degree of resistance (R). Stated more precisely:

Assumption 2.1--degree of embarrassment (E) is a linear function of degree of resistance (R); there is no embarrassment if there is no resistance.²

Hence, we obtain:

$$\text{Eq 2.3)} \quad E = eR = e(7 - Y),$$

where e is the proportionality factor ($e \geq 0$), and has different values for different subjects. The parameter e is a crucial one

¹Resistance could also be given another meaning: the length of time for which a subject held his ground under pressure. This can be assessed from the number of minutes for which a subject resisted confederates during the face-to-face influence attempt. This measure correlates with R , as defined above, .56, indicating that the two meanings are well related in our experiment.

²This assumption is in certain respects a matter of convenience. Strictly speaking, we believe only that embarrassment is a monotonically increasing function of resistance, but there is no convenient mathematical expression for such a function. We have no reason to suspect that this function would be either positively or negatively accelerated. A case could be made for either. Hence, we make the assumption of linearity largely because it is the simplest function in keeping with our more basic assumption.

in Eq 2.3. It determines the slope, and hence the degree of embarrassment (E) associated with each degree of resistance (R). This parameter reflects a subject's Embarrassment Potential--his propensity to become embarrassed in the influence situation.¹

Substituting Eq 2.3 into Eq 2.2, we have a subject's U(E) expressed as a function of \underline{Y} (amount of yielding):

$$\text{Eq 2.4) } U(E) = -e(7-Y).$$

From Eq 2.4 we can determine a subject's optimum amount of yielding given only his disutility for embarrassment. Since \underline{Y} cannot exceed 7, it is apparent from Eq 2.4 that, if a subject has any Embarrassment Potential at all, he minimizes his disutility by yielding completely (i.e., seven hours). This is precisely what we desire, since a subject's resistance to influence enters only through his Time-utility Function.

3. Combining the Utility Functions--Since we envision a subject in the influence situation as attempting to minimize his total disutility, we must now add the two utility functions, U(T) and U(E), together. Doing this we obtain:

$$\text{Eq 3.1) } U(T)+U(E) = Y [K(i-2)+e] - \frac{1}{2}Y^2 + iK(i-2) + \frac{1}{2}i^2 - 7e.$$

From Eq 3.1 we can determine a subject's optimum amount of yielding (\hat{Y}) given both his utility for time and his disutility for embarrassment. Differentiating Eq 3.1 with respect to \underline{Y} and solving for the optimum value of \underline{Y} (\hat{Y}) we obtain:

$$\text{Eq 3.2) } \hat{Y} = K(i-2) + e.$$

¹It will be recalled that the concept of Embarrassment Potential was introduced in Chapter One. It was noted that Embarrassment Potential is a function partly of general Embarrassability, but primarily of prior Unfavorableness of Subjective Public Image, and prior Poorness of Self Image.

²Since $0 \leq \hat{Y} \leq 7$, this limits the magnitude of the parameters

As we have stated numerous times, we assume that each subject will yield an amount which minimizes his total disutility. Hence, Eq 3.2 states, very simply, that a subject will yield more, the higher his initial vote (i), and the greater his Embarrassment Potential (e). The former implication is not of great interest, though it helps us take into account individual differences which could not be controlled by the manipulations. On the other hand, the latter implication is a restatement of Proposition 2 from Chapter One: an individual's resistance to influence will be inversely related to his Embarrassment Potential. It was from this proposition that we derived our hypothesis about the relative yielding of the six experimental conditions, in Chapter Three. Using the model, we shall now proceed to derive numerous other hypotheses which can be tested from the experimental data.

Before proceeding to discuss our strategy for testing the model, it will be useful to derive an expression for the subject's degree of embarrassment at the time when he capitulates to the influence attempt (\hat{E}). We assume that a subject capitulates at $Y = \hat{Y}$. Hence, substituting Eq 3.2 into Eq 2.3 we obtain:

$$\text{Eq 3.3) } \hat{E} = [7 - K(i-2)] e - e^2.$$

Since a subject's degree of embarrassment increases linearly with resistance until he capitulates, Eq 3.3 essentially expresses the

on the right side of the equation. Generally, $K(i-2) + e$ should be less than seven. For those who may be concerned about the implications of having set $C = \frac{1}{2}$ in Eq. 1.1.1, it should be noted that if C had been carried through, $2C$ would appear as a divisor of e in Eq 3.2. Because C is a constant, its only effect would be to adjust embarrassment units in order to make them commensurate with time units. Since embarrassment units are, however, unspecified, the constant $2C$ can be seen as having been absorbed by the parameter e .

subject's maximum level of embarrassment during the influence attempt in terms of his value of \underline{i} and \underline{e} .

Testing the Model

In certain cases the unit of measure of a variable or parameter in the model is quite clear-cut. For example, \hat{Y} and \underline{i} would be measured in hours. In other cases the unit of measure is not at all clear-cut. For example, the units of \hat{E} and \underline{e} are undefined. As we shall see better in a moment, we do have experimental measures that are closely associated with \hat{E} and \underline{e} , though they are almost certainly calibrated in a different unit. To test our equations most precisely, therefore, we would require conversion factors to transform these experimental measurement units into theoretical measurement units.

It is not unusual under such circumstances to use the experimental data, itself, to estimate conversion factors. We could "sacrifice" one equation of the model and use it to compute a conversion factor which would maximize the overall fit between this equation and the data. This conversion factor could then be used to test other implications of the model. However, it is our belief that such procedures can be exceedingly treacherous. Once the equations of a mathematical model have become "contaminated" by parameters estimated from the same data which will be used to test this model, it is no longer entirely clear whether these equations mirror reality or mirror the data--whether the greatly augmented precision of their implications reflects something useful or merely an elaborate exercise in circularity. In short, we know of no statistical technique which can satisfactorily evaluate a model which has been fitted to the same data it will be asked to predict.

More generally, the equations of our model have an exhilarating precision which can be misleading. We noted that a number of our assumptions were convenient approximations to reality, and were not to be taken literally. These equations are an extremely useful tool for unraveling the exact implications of a series of assumptions, each of which seems reasonably realistic. But it makes little sense to reify these equations by fitting them to the data and attempting to test their strongest possible implications. Our strategy for testing the model will be to derive implications which can be tested without "fitting" any parameters, and which can be seen as reasonable on logical as well as mathematical grounds. One cannot make a logical argument about the exact number of hours which any given subject should yield, but one can make such an argument about the general association between different variables in the model.

As we noted earlier we have in our experimental data direct measures of \hat{Y} and \underline{i} , and measures positively associated with \hat{E} and \underline{e} . To test the model we shall treat these latter measures as linear transformations of \hat{E} and \underline{e} . Our strategy will be to derive from the equations predictions about the associations among these four variables. In particular, we shall attempt to derive a statement concerning whether the association between each pair of variables should be positive or negative. Since almost any positive or negative association (certainly a linear or quadratic one) can be closely approximated by a linear relationship, we shall test these statements by correlating the corresponding experimental measures. In deriving each statement we shall give first a relatively formal mathematical argument and then further motivate it by means of an intuitive argument.

The four theoretical variables and parameters will be operationalized by the following experimental measures. We shall assess \hat{Y} from the experimental measure Amount of Yielding--the total number of hours which each subject yielded. In some cases it will also be of interest to consider a measure which is logically (and empirically) inversely related to \hat{Y} --a measure of amount of resistance: the number of minutes for which a subject resisted face-to-face pressure from confederates. We shall refer to this measure as Length of Resistance. We shall assess i by means of the experimental measure Initial Vote--the number of hours each subject voted for on the initial ballot. Embarrassment Potential should be a positive function of both Unfavorableness of Subjective Public Image, and Poorness of Self Image. Hence we will assess e by adding these measures together to form a combined scale. We shall refer to this combined scale as Image-Inadequacy. Finally, we will assess \hat{E} from each subject's self-report about his degree of embarrassment during the decision-making (influence) process. This self-report was a polar adjective rating identical to the one used to measure Post-task Embarrassment.¹ We shall refer to this self-report measure as Decision-making Embarrassment.

1. Deriving Predictions--We now turn to the derivation of predictions about the association between each pair of variables. First, the model can make no prediction about the association between i and e .

¹In using this measure to assess the variable \hat{E} , we assume that a subject tends to report his maximum level of embarrassment (i.e., at the time he capitulated), rather than some average level. Since this maximum level is reached at the very end of the influence attempt, this seems a reasonable assumption. Note also that even a subject's average level of embarrassment is higher, if his maximum level is higher.

Generally, we will find it convenient to assume that \underline{i} and \underline{e} are independent, but this is an assumption and not a prediction.¹

From Eq 3.2 we see that \hat{Y} is a positive linear function of both \underline{i} and \underline{e} . Hence we have the following two predictions: Amount of Yielding should correlate positively with both Initial Vote and Image-Inadequacy. The intuitive rationale behind both these predictions is clear. Note, however, that since Image-Inadequacy and Initial Vote are independent, Amount of Yielding cannot correlate very strongly with both measures.²

From Eq 3.3 we see that \hat{E} is a negative linear function of \underline{i} . Hence we have the following prediction: Decision-making Embarrassment should be negatively correlated with Initial Vote. The intuitive rationale behind this prediction is fairly clear. The more hours a subject votes for initially, the more he will yield because of his time-utility (see Eq 1.8), and hence the less he will resist and become embarrassed.

Unfortunately the association between \underline{e} and \hat{E} is quite complicated. From Eq 3.3 we can see that the general relationship is parabolic, but that the nature of the parabola is partly a function of \underline{i} . Assuming that \underline{i} and \underline{e} are independent, we can determine the peak of

¹It might be expected that the manipulations of image-esteem would systematically affect a subject's desires to return for future sessions. This would then be reflected in their Initial Votes. If such were the case, \underline{i} and \underline{e} would be correlated. However, the data show that this is not the case. The correlation of Image-Inadequacy with Initial Vote was -.02.

²The sum of these two correlations squared must be less than 1. However, there is no upper limit on their partial correlations with Amount of Yielding. In the event of a perfect fit the correlation of each, while partialing out the other, should tend toward unity.

this parabola as a function of \underline{i} , by taking the partial derivative of Eq 3.3 with respect to \underline{e} . The peak of the parabola occurs at the following value of \underline{e} (denoted \hat{e}):

$$\text{Eq 3.3a) } \hat{e} = \frac{1}{2} [7 - K(1-2)].$$

If the Embarrassment Potentials of all our laboratory subjects tended to cluster so that almost all of them satisfied the following inequality: $e < \hat{e}$, then the correlation between Image-Inadequacy and Decision-making Embarrassment should be positive. On the other hand, if the Embarrassment Potentials of all our laboratory subjects tended to cluster so that almost all of them satisfied the following inequality: $e > \hat{e}$, then the correlation between Image-Inadequacy and Decision-making Embarrassment should be negative. Finally if the Embarrassment Potentials of our laboratory subjects did not cluster but rather distributed themselves relatively evenly, satisfying the first inequality about as often as the second, then there should be no correlation between Image-Inadequacy and Decision-making Embarrassment.

Unfortunately, our experimental measure of \underline{e} , Image-Inadequacy, is not measured in units which are applicable to Eq 3.3a. Hence, we cannot directly estimate the range and distribution of values of \underline{e} observed in the laboratory. We do know that the range of Image-Inadequacy scores observed in the laboratory is quite large. We had five subjects who felt their performance was "very good" and their public image "very favorable", while we had ten subjects who felt their performance was "very poor" and their public image "very unfavorable". This suggests that we do have the full range of theoretical values of \underline{e} (from Eq 3.2 we saw this was roughly 0 to 7). Further, our Image-Inadequacy scores are quite evenly distributed over their

own possible range of 2 to 12--26% of the subjects fell between 2 and 4, 44% fell between 5 and 9, and 30% fell between 10 and 12. This suggests that the Embarrassment Potentials of our laboratory subjects are not clustered, but evenly distributed over their theoretical range of 0 to 7. Finally, the data show that Initial Votes ranged from 0 to 8, hence from Eq 3.3a we see that \hat{e} ranges from 2 to 4.¹ All of the above taken together implies that the Embarrassment Potentials of laboratory subjects not only achieved their full theoretical range and are fairly evenly distributed, but also that they are likely to satisfy each of the inequalities: $e < \hat{e}$ and $e > \hat{e}$ about equally often. Hence we are led to predict a zero-order correlation between Image-Inadequacy and Decision-making Embarrassment.

The intuitive rationale behind this prediction is less obvious but it goes approximately as follows. A subject with a large Embarrassment Potential is easy to embarrass, but he yields very quickly. A subject with a small Embarrassment Potential is much harder to embarrass, but he resists much longer. The net effect is to make it impossible to express degree of embarrassment as a linear function of Embarrassment Potential. Hence, the corresponding experimental measures should be uncorrelated.

Finally, the relationship between \hat{Y} and \hat{E} is almost impossible to derive from the equations of the model. We shall present here a rough argument, based on the four previous predictions, which implies that the correlation of Amount of Yielding with Decision-making Embarrassment should be low and negative. We predicted a zero-order

¹ Assuming $K = \frac{1}{2}$; if $K = 1$, then \hat{e} ranges from .5 to 4.5. If $K = 0$, then $\hat{e} = 3.5$.

correlation of Image-Inadequacy with Decision-making Embarrassment, and a positive correlation of Image-Inadequacy with Amount of Yielding. To the extent that the latter correlation were perfect, this would directly imply a zero-order correlation of Amount of Yielding with Decision-making Embarrassment. On the other hand, we predicted a negative correlation of Initial Vote with Decision-making Embarrassment, and a positive correlation of Initial Vote with Amount of Yielding. To the extent that the latter correlation were perfect, this would directly imply a negative correlation of Amount of Yielding with Decision-making Embarrassment. However, because \underline{i} and \underline{e} are independent, we know Amount of Yielding cannot correlate perfectly with both Image-Inadequacy and Initial Vote. Hence the correlation of Amount of Yielding with Decision-making Embarrassment should be from zero-order to negative, i.e., low negative.¹

At an intuitive level, this prediction stems partly from our discussion of the relationship between \underline{e} and \hat{E} . In this discussion we noted that subjects with small values of \underline{e} tend to resist, while those with larger values of \underline{e} tend not to resist. Hence, we might expect little relationship between Amount of Yielding and degree of embarrassment. However, we also know that subjects with larger Initial votes will resist less irrespective of their value of \underline{e} hence suffering less embarrassment. The effect of this is to introduce a slight negative association between Amount of Yielding and Decision-making Embarrassment.

¹This prediction is a little beyond the strict implications of the model which show only that: $0 > r > -1$. However, given the error variances with which we deal, $-.35$ is already a good negative association. If non-error factors also act to bring the correlation toward zero, then we might expect something between $-.10$ and $-.25$ to result.

Table 5.1 summarizes our five predictions in the form of an inter-correlation matrix. In order to make it easier for the reader to view the relationship of any given variable with each of the other three, we shall retain the full, squared correlation matrix in this table as well as in those which follow. (Of course, half the entries in such a table are redundant.) We now proceed to test the predictions using the laboratory data.

2. Testing the Predictions--Table 5.2 displays the data used to test the model: the inter-correlations among the four experimental measures which assess the variables and parameters of the model. It is readily apparent that the data fit the model quite poorly. Initial Vote, our least important parameter, is the only measure which consistently correlates with other variables in the predicted manner (.45 with Amount of Yielding and $-.17$ with Decision-making Embarrassment). Image-Inadequacy, our most important measure, completely fails to correlate in the predicted manner (.35 with Decision-making Embarrassment and $-.02$ with Amount of Yielding). Our inverse measure of Amount of Yielding (Length of Resistance) likewise correlates very weakly with Image-Inadequacy ($r = -.12$). These last results indicate that subjects with higher Embarrassment Potentials are no more likely to yield (or no less likely to resist) than subjects with lower Embarrassment Potentials. If this is the case, then our theory of embarrassment and social influence is thoroughly scuttled. To investigate further the relationship between Amount of Yielding and Image-Inadequacy, we shall examine the Amount of Yielding in each of the experimental conditions.

TABLE 5.1Predictions from the Model;Correlations Between Five Pairs of Variables

	Amount of Yielding (\hat{Y})	Image Inadequacy (e)	Initial Vote (i)	Decision- Making Emb. (\hat{E})
Amount of Yielding (\hat{Y})	---	pos.	pos.	low neg.
Image Inadequacy (e)	pos.	---	*	zero
Initial Vote (i)	pos.	*	---	neg.
Decision- making Embarrassment (\hat{E})	low neg.	zero	neg.	---

*No prediction is made about this pair of measures.
 †They are assumed to be zero-order correlated.

TABLE 5.2

Testing the Model: Predictions
and Observed Correlations

(All Subjects, n=90)

	Amount of Yielding (\hat{Y})	Image Inadequacy (e)	Initial Vote (i)	Decision- making Emb. (\hat{E})
Amount of Yielding (\hat{Y})	---	pos. -.02	pos. .45	low neg. -.30
Image Inadequacy (e)	pos. -.02	---	-.02	zero .35
Initial Vote (i)	pos. .45	-.02	---	neg. -.17
Decision- making Embarrassment (\hat{E})	low neg. -.30	zero .35	neg. -.17	---

Correlations larger than .17 are significant at the .10 level.

Correlations larger than .20 are significant at the .05 level.

Correlations larger than .25 are significant at the .01 level.

The means of the six conditions fall in the following order on the variable Image-Inadequacy: $PU_f \approx MPU_f > PR_f > PR_s > MPU_s \approx PU_s$.¹ Hence, according to our theory, the mean Amount of Yielding in each condition should fall in the same order. Table 5.3 displays the mean Amount of Yielding for each of the six conditions. In this table we see that the two private conditions fall in the right order relative to one another, but that the four public conditions tend slightly to fall in a reverse order. Using the yielding behavior of the PR_s and PR_f conditions as a guideline, it is clear that PU_s and MPU_s subjects yielded more than expected, while PU_f and MPU_f subjects yielded less than expected. This suggests that some unanticipated factor, related to the public nature of these conditions, must have affected the behavior of subjects. It also suggests that the model may still be applicable to the two private conditions. Before beginning an extended discussion of the possible factors affecting the behavior of subjects in the four public conditions, we shall test the model again using data only from the two private conditions.²

In testing the model on private condition subjects we shall use Poorness of Self Image rather than Image-Inadequacy to assess the parameter \underline{e} . Since PR_s and PR_f subjects did not experience a

¹The approximate equality of PU_f with MPU_f , and PU_s with MPU_s is, of course, due to our partial manipulation failure.

²The reader's concern with the predictions of the model should not prevent him from noting that subjects, on the whole, yielded a fantastic number of hours. The grand mean of Amount of Yielding is 5.1 hours. Coupled with the fact that the grand mean of Initial Vote is 2.4 hours, this means that subjects were induced to admit a willingness to return for an average of 7.5 hours during the last week of classes before final exams! Whether they would actually have returned is another question.

TABLE 5.3
Amount of Yielding

<u>Condition</u>	<u>Mean</u>	<u>Standard Deviation</u>
1. PU _s (n=15)	5.80	1.70
2. MPU _s (n=15)	5.20	1.97
3. PR _s (n=15)	3.93	2.52
4. PR _f (n=15)	6.07	1.22
5. MPU _f (n=15)	4.67	2.41
6. PU _f (n=15)	4.93	1.83

4 vs. 3, $t = 2.48$, $p = .02$

manipulation of Subjective Public Image-esteem, the measure Unfavorableness of Subjective Public Image, is irrelevant to their Embarrassment Potentials.¹

Table 5.4 displays the five critical correlations. As can be seen, the predictions fit the observations exceptionally well. Each of the four variables relates with the others in the predicted manner. Amount of Yielding correlates .45 with Poorness of Self Image and .54 with Initial Vote. Hence, knowing subjects' Poorness of Self Image Scores (Embarrassment Potentials) and their Initial Votes (an estimate of their utility for time) we can predict their Amount of Yielding with a good deal of accuracy. The multiple correlation coefficient is .67.² By controlling for subject's Initial Votes, we are better able to predict their Amount of Yielding from their Embarrassment Potential. The partial correlation of Poorness of Self Image with Amount of Yielding (partialing out Initial Vote) is .51. Our inverse measure of Amount of Yielding (Length of Resistance) does as well as Amount of Yielding in the two most critical predictions of the model. It correlates with Image-Inadequacy -.44 and with Decision-making Embarrassment .01. Surprisingly, it fails to correlate with Initial Vote ($r = -.04$).

¹As we saw in Chapter Four, these subjects do not vary much in their Unfavorableness of Subjective Public Image. Thus, most of the variability in their Image-Inadequacy would simply reflect variability in their Poorness of Self-Image. In fact, the correlation between these two measures is .97.

²Embarrassment Potential is also a function of general Embarrassability. If we add a measure of this trait (i.e., scores on the Total Embarrassment Scale), our ability to predict Amount of Yielding improves further. The multiple correlation coefficient rises to .69.

TABLE 5.4

Testing the Model in the Private Conditions:Predictions and Observed Correlations

(private conditions only, n=30)

	Amount of Yielding (\hat{Y})	Poorness of Self Image (e)	Initial Vote (i)	Decision-making Emb. (\hat{E})
Amount of Yielding (\hat{Y})	---	pos. .45	pos. .54	low neg. -.13
Poorness of Self Image (e)	pos. .45	---	.13	zero -.02
Initial Vote (i)	pos. .54	.13	---	neg. -.20
Decision- making Embarrassment (\hat{E})	low neg. -.13	zero -.02	neg. -.20	---

Correlations larger than .29 are significant at the .10 level.

Correlations larger than .34 are significant at the .05 level.

Correlations larger than .44 are significant at the .01 level.

The negative correlation between Decision-making Embarrassment and Initial Vote (-.20) indicates that subjects who yielded more quickly for reasons unrelated to Embarrassment Potential tended to suffer less embarrassment. The zero-order correlation of Poorness of Self Image with Decision-making Embarrassment (-.02) is consistent with the expectation that more embarrassable subjects would yield more quickly thereby avoiding severe embarrassment.

Generally, then, we can have considerable confidence that our model accounts for the behavioral and emotional responses of private condition subjects. Hence, we find strong support for the following statement: the more an individual feels he has suffered a loss of self image-esteem, the more vulnerable he is to embarrassment, and hence the more susceptible he is to a form of social influence which capitalizes on embarrassment. We now turn to the question of why our model failed to account for the responses of subjects in the public conditions.

Yielding in the Public Conditions

From Table 5.3 we saw that, quite unexpectedly, the two public success conditions yielded slightly more than the two public failure conditions. A closer examination of the social influence data in the public conditions leads to the following conclusions: first, subjects in the two public success conditions do not differ from subjects in the two public failure conditions on Initial Vote ($t = .75, p > .40$); second, their Initial Votes are well related to their propensity to yield on the second (influence) ballot ($r = .60, p < .01$); and hence, as might be expected, the two public success and the two public failure conditions do not differ from one

another on Ballot Yielding ($t = .83, p = .40$).¹ It is thus apparent that the difference which does exist in Amount of Yielding between these pairs of conditions must have arisen during the face-to-face portion of the influence attempt. It is difficult to examine the Face-to-Face Yielding by condition because the amount which a subject could yield was partly dependent on how much he had yielded on the second ballot. For example, a subject who yielded seven hours on his second ballot would automatically obtain a score of zero hours on his Face-to-Face Yielding, but this would hardly be an indication of his susceptibility to face-to-face influence. We can obtain the best impression of how the conditions differ in susceptibility to face-to-face influence by isolating and examining a sub-set of subjects who yielded no more than two hours on their second ballot.² Table 5.5 displays the mean Face-to-Face Yielding of such subjects as a function of their experimental condition.

We note first that PR_f subjects were considerably more susceptible to face-to-face influence than PR_s subjects, as would be expected from our earlier discussion of the private conditions. We also note that the pattern of yielding among the four public conditions is rather complex. Basically, PU_s subjects are quite susceptible to face-to-face influence, and MPU_f subjects are fairly resistant, while MPU_s and PU_f subjects are intermediate. The difference between

¹The trend, in both cases, is for the public success conditions to be slightly higher. There are, of course, no significant differences within each pair of public success and public failure conditions.

²Because of the high correlation between Initial Vote and Ballot Yielding, this is basically a set of subjects who had low Initial Votes, and hence a higher utility for time during the final week of classes.

TABLE 5.5

Face-to-Face Yielding of Subjects who Yielded
Less than Three Hours on Their Second Ballot

<u>Condition</u>	<u>Mean</u>	<u>Standard Deviation</u>
PU _s (n=11)	4.45	1.57
MPU _s (n=10)	3.50	1.18
PR _s (n=9)	1.78	1.56
PR _f (n=9)	4.78	2.17
MPU _f (n=8)	2.56	1.51
PU _f (n=11)	3.73	1.68

Mean Square Error = 2.63

Observed ordering of means*: PR_f PU_s PU_f MPU_s MPU_f PR_s

*A continuous underlining joining two or more conditions indicates that the means of these conditions do not differ at the .05 level. Differences were tested using the Neuman-Keuls a posteriori method. Note that this test is designed to be conservative with respect to detecting differences. Hence, it should not be concluded that means which do not differ significantly are particularly similar.

PU_f and MPU_f subjects is reminiscent of the data on eye contact discussed in Chapter Four. There we saw that MPU_f subjects showed a larger decrease in eye contact, during the Post-task Evaluation Period, than PU_f subjects. We partly explained this result by suggesting that MPU_f subjects felt a greater dislike for the confederate who criticized their performance. If the experimental manipulations in the public conditions actually induced differential liking and disliking of the confederates (and thereby, perhaps, the whole team), this may be a clue to the unexpected pattern of yielding behavior in these conditions.

In searching for an explanation of this pattern of yielding a number of points should be kept in mind. We were able to explain the fact that PR_f subjects yielded more than PR_s subjects from a difference in their vulnerability to embarrassment. There must be an even greater difference in vulnerability to embarrassment between MPU_s+PU_s subjects and MPU_f+PU_f subjects. It seems inconceivable that this difference should somehow dissipate in the public conditions but not in the private conditions. Yet, we are faced with the fact that MPU_s+PU_s subjects are no less, if not more, inclined to yield than MPU_f+PU_f subjects. Hence, we are led to the conclusion that some powerful, additional factor, operating in opposition to the effects of embarrassment, influenced the yielding behavior of the public conditions. We will suggest two possible forms which this additional factor may have taken.

1. Attraction to the Group--The causes and consequences of attraction to a group have been extensively investigated by social psychologists. This concept, which is closely related to group

cohesiveness, is generally taken to refer to the strength of a person's desire to participate in a group. Group cohesiveness is often manipulated by controlling subjects' attraction to their group. It has been fairly well established that greater cohesiveness or attraction to a group leads to greater conformity with group norms. Hare (1962) lists fifteen studies supporting this proposition. Moreover, willingness to participate in a group's future sessions is often used as a direct measure of attraction to it. Thus, if our experimental manipulations made the group seem more attractive to $MPU_s + PU_s$ subjects and less attractive to $MPU_f + PU_f$ subjects, we have an explanation for the observed pattern of yielding. Note, however, that the differential attraction could not have arisen solely from the fact that the former subjects succeeded at their task while the latter subjects failed. For, this was true of the private conditions as well. It must have arisen as a result of the face-to-face, supportive or critical feedback which subjects in the public conditions experienced. This is not an unreasonable speculation. Further, the eye contact data suggested just such a differential attraction to the confederates, and hence, probably, to the team.

Unfortunately we do not have a good measure of our subjects' attraction to their group. We have some indirect measures. It might be expected that subjects who were more attracted to the group would vote for more hours on the Initial Ballot. But, we saw that $MPU_s + PU_s$ subjects were only very slightly more inclined toward higher Initial Votes than $MPU_f + PU_f$ subjects.¹ It is possible that the systematic

¹ MPU_f subjects average about one hour less than the other three public conditions on their Initial Ballots. Given the variances involved, this is a small difference.

differences in attraction were obscured by random individual differences in utility for time. Subjects were also asked the following question after the decision-making period:

"Looking back on your participation with the team, how pleasant do you find working with your team?"

This question was scored on a six-point scale ranging from "very pleasant" to "very unpleasant". Responses to this question show that MPU_f+PU_f subjects found working with their team somewhat less pleasant than MPU_s+PU_s subjects ($t = 2.00, p = .05$). But the difference is certainly not striking. MPU_s+PU_s subjects average "fairly pleasant", while MPU_f+PU_f subjects average "slightly pleasant". There is certainly no evidence that the latter subjects found the participation particularly unpleasant.¹

Other experimental studies using manipulations similar to ours corroborate the fact that criticizing or rejecting a subject does not necessarily reduce his attraction to the group. In these studies, subjects receive bogus ratings which are **purported** to come from other team members. When such ratings are broad in nature, implying the subject is generally inadequate, they produce a marked reduction in attraction to the group (Dittes and Kelley, 1956; Kelley, and Shapiro, 1954; Kiesler, 1963). But when these ratings are quite narrow, implying the subject is unskilled at the group task (as in our case), they have little or no effect on the subject's attraction to the group (Snoek, 1962). This is particularly true when subjects

¹Note that since this question was asked after the influence period, it partly reflects the unpleasantness of this period. In fact, the above noted difference may be entirely due to the fact that, as we shall see presently, MPU_f+PU_f subjects found the outcome of the influence period less satisfactory than MPU_s+PU_s subjects.

have independent evidence for their lack of skill (Jackson and Saltzstein, 1958).¹

All in all, then, we have no clear basis for assuming that $MPU_f + PU_f$ subjects were much less attracted to the group than $MPU_s + PU_s$ subjects. Nevertheless, we do have small but consistent indications that there was some difference between them. In particular, it seems fairly clear that the MPU_f subjects found the group least attractive. They showed the largest reduction in eye contact, the smallest Initial Vote and rated their group participation as least pleasant. In line with this, they were the most resistant to face-to-face influence.

2. Reciprocity--A somewhat different explanation for the pattern of yielding observed in the public conditions stems from the social exchange theories of Homans (1958), Gouldner (1960), and especially Blau (1965). These theorists conceptualize social interaction as "an exchange of activity, tangible or intangible, and more or less rewarding or costly, between at least two persons." (Homans, 1961, p. 13). The basic point, for our purposes, is that when individuals come into association with one another, they begin to exchange more or less tangible resources or services. "An individual who supplies rewarding services to another obligates him. To discharge this obligation, the second must furnish benefits to the first in turn." (Blau, 1965, p. 89)² If an individual defaults on this obligation,

¹It should be noted that three of the four studies cited above, plus another by Julian and Steiner (1961), went on to explore the relationship between rejection by the group and conformity to group norms. The structure of their influence situations differed from ours in that they used modified Asch or Crutchfield procedures. Nevertheless, they all obtained results similar to ours: lack of a clear linear relationship between rejection and conformity.

²Gouldner (1960) refers to this obligation as the norm of reciprocity.

it raises questions about his trustworthiness, and hence about his desirability as a party to future exchanges. Gouldner (1960) points out that the intangible nature of these exchanges makes it difficult to define an "equal" exchange. Thus, an individual who receives a benefit is never quite certain when his obligation has been discharged. This, plus the importance of discharging the obligation, introduces a bias toward "overpayment", which, in turn, obligates further repayment and initiates a positive reciprocity spiral. Social interactions which degenerate into hostility or conflict may be analyzed in converse terms and viewed as instances of a negative reciprocity spiral.

In our laboratory experiment, subjects in the public conditions are sharply differentiated from those in the private conditions by having much greater opportunity to enter into a process of social exchange with other group members. Subjects in the two private conditions had no opportunity to interact with other group members prior to the influence attempt. On the other hand, subjects in the four public conditions not only worked with their group as a team, but interacted with at least one other member almost constantly. Further, it is not difficult to see how $MPU_s + PU_s$ subjects became involved in a positive reciprocity spiral, while $MPU_f + PU_f$ subjects became involved in a negative reciprocity spiral. $PU_s + MPU_s$ subjects did quite well on their task, thus aiding the group, and were unequivocally praised for their efforts. Being thus caught in a positive reciprocity spiral, they probably remained in a state of partial indebtedness at the time of the influence attempt. On the other hand, $MPU_f + PU_f$ subjects did poorly on their task, and were

unequivocally criticized for their efforts. Being thus caught in a negative reciprocity spiral, they probably felt negatively indebted to others at the time of the influence attempt. This should be particularly true of MPU_f subjects, who had good reason to feel they had not received their due from other team members.

We must further consider that the structure of the influence attempt made it especially sensitive to such states of positive or negative reciprocity. In a sense, subjects were being asked to give up their own time in order to permit other team members to fulfill their desire to return. Hence it may be termed a "zero-sum" influence situation--one in which the subject's loss is the others' gain and vice-versa. Certainly, a subject's propensity to "give" to other team members should be affected by his state of indebtedness to these team members.

This analysis provides a highly plausible explanation for the unexpectedly low yielding of MPU_f+PU_f subjects as well as the unexpectedly high yielding of MPU_s+PU_s subjects. Unfortunately we have no direct means of assessing the role played by reciprocity in our influence situation. We do have some indirect evidence that subjects in the public conditions, unlike those in the private conditions, tended to view the influence attempt in a context of "giving" to other team members. All subjects were asked the following open-ended question after the influence period was over:

"Did you actually modify your initial choice to bring it into closer agreement with others? If yes, why?"

Such open-ended questions are fairly difficult to score. However, twenty-five of the ninety subjects gave responses which could be clearly classified as altruistic (e.g., "because the others seemed to want

to come back very badly", "because I didn't want to hold back the other team members"). Of these twenty-five subjects, fully twenty-two were from the public conditions. Fourteen were PU_s+MPU_s subjects, six were PU_f subjects and only two were MPU_f subjects. Further, it was the author's impression that the MPU_f+PU_f subjects who claimed to have yielded for altruistic reasons were fairly disgruntled about having to do so.¹ This suggests that while MPU_f+PU_f subjects still viewed the influence situation in a context of social exchange, they felt they were giving considerably more than their fair share. Presumably this was because their greater vulnerability to embarrassment made them unable to resist to the degree which they wished, given their negative indebtedness.

The greater dissatisfaction of MPU_f+PU_f subjects is also illustrated by their responses to the following question asked of all subjects following the influence period:

"How satisfied were you with the final decision arrived at by the team?"

Scores on this question ranged from 1, "very satisfied", to 6, "very unsatisfied". The mean dissatisfaction of all six experimental conditions is displayed in Table 5.6. Here we see that the MPU_f+PU_f subjects were more dissatisfied with the final team decision despite the fact that they yielded slightly less. On the other hand, in the private conditions, PR_f subjects (who yielded more) are more dissatisfied than PR_s subjects. Note also that MPU_f subjects are considerably more dissatisfied than PR_s subjects despite the fact that they

¹One PU_f subject gave the following altruistic reason for yielding, "I didn't want to screw it up for the others. Maybe some of them need money. I don't."

TABLE 5.6Dissatisfaction with the Final Team Decision

<u>Condition</u>	<u>Mean</u>	<u>Standard Deviation</u>
1. PU _s (n=15)	3.53	1.30
2. MPU _s (n=15)	3.80	1.47
3. PR _s (n=15)	3.20	1.52
4. PR _f (n=15)	4.13	1.12
5. MPU _f (n=15)	4.27	1.58
6. PU _f (n=15)	4.47	1.36

Mean square error = 1.96

3 vs. 4, $t = 1.82$, $p^* = .07$

1 and 2 vs. 5 and 6, $t = 2.09$, $p^* = .05$

*Two-tailed, MSE used as an estimate of the variance.

yielded comparable amounts during the face-to-face influence (see Table 5.5). These data then offer further support to the suggestion that $MPU_f + PU_f$ subjects were unexpectedly resistant because they felt negatively indebted to other team members, while $MPU_s + PU_s$ subjects were unexpectedly yielding because they felt positively indebted to other team members.

Revising the Predictions of the Model

Our model of embarrassment and social influence made a series of predictions for the public conditions which were not supported by the data, because it failed to take account of the unexpected factors discussed above. This, however, does not diminish the probability that embarrassment played a role in the influence situation. If it did, then it should be possible to take the unexpected factors into account and, using our underlying assumptions, derive new predictions about the relationships among our original experimental measures. For purposes of such a revision it makes little difference whether the unexpected factor was attraction to the group, or reciprocity, or both. The fact remains that subjects in the public conditions were operating with an additional utility function. The general nature of this function was such that $MPU_s + PU_s$ subjects had additional incentive to yield, while $MPU_f + PU_f$ subjects had additional incentive to resist. Further, we saw from the data, that these incentives were powerful enough to cancel, in fact to reverse, our original expectation that $MPU_f + PU_f$ subjects would yield more than $MPU_s + PU_s$ subjects. We saw from our previous discussion that the very same manipulations which increased Embarrassment Potential acted to decrease reciprocity or attraction to an even greater extent. Thus, for example, we know

that Image-Inadequacy will tend to correlate negatively with Amount of Yielding in the public conditions (in fact $r = -.23$). But how will the introduction of these countervailing forces affect the remaining four predicted relationships among the variables of the original model?

The relationship of \hat{I} with \hat{Y} should remain unchanged. Subjects with larger Initial Votes should still yield more. In fact, the public condition data show that the correlation between Initial Vote and Amount of Yielding is .41 ($p < .01$). Since subjects who yield more should suffer less embarrassment, the correlation between Initial Vote and Decision-making Embarrassment should also remain negative. Here, the data show a correlation of only $-.13$. This is probably because the reciprocity-attraction factor reduces resistance and hence embarrassment of $MPU_s + PU_s$ subjects to such an extent that Initial Vote makes little additional difference.

The critical test of whether embarrassment is an important factor in the public conditions, however, lies in the association of \hat{E} with \hat{e} and \hat{Y} . Let us consider first the association between \hat{E} (Decision-making Embarrassment) and \hat{e} (Image-Inadequacy). We may assume that subjects with low Embarrassment Potentials tend to be in a state of positive reciprocity and more attracted to the group. The opposite is true for subjects with high Embarrassment Potentials. Hence, the former ($MPU_s + PU_s$) subjects, who according to our original formulation should have been resistant, now yield much more quickly and should suffer minimal embarrassment. On the other hand, the latter ($MPU_f + PU_f$) subjects, who according to our original formulation should have yielded quickly, now become much more resistant and should

suffer considerable embarrassment. The result is that the relationship between Image-Inadequacy and Decision-making Embarrassment, which originally should have been zero-order, now should become positive. The public conditions data clearly support this expectation, showing a correlation of .45 ($p < .01$).

The expected association between \hat{E} (Decision-making Embarrassment) and \hat{Y} (Amount of Yielding) falls out of the same argument. Because of the reciprocity-attraction factor, many of the subjects who now yield quickly have quite small Embarrassment Potentials and thus should suffer minimal embarrassment. On the other hand, many of the subjects who are now resistant have quite large Embarrassment Potentials and thus should suffer considerable embarrassment. The result is that the relationship between Decision-making Embarrassment and Amount of Yielding, which originally should have been low negative, now should become even more negative. The data support this expectation, also, showing a correlation of $-.33$ ($p < .01$). Our inverse measure of Amount of Yielding (Length of Resistance) shows a similar correlation of $.27$ ($p < .05$).

In effect, then, embarrassment tends to become irrelevant for $MPU_s + PU_s$ subjects. Their Embarrassment Potentials are low and the reciprocity-attraction factor acts to "pull them out" of the influence situation before embarrassment can become a serious force. On the other hand, embarrassment tends to become quite serious for $MPU_f + PU_f$ subjects. Their Embarrassment Potentials are high and the reciprocity-attraction factor acts to "hold them in" the influence situation despite the embarrassment they may be suffering. Thus, the mean level of Decision-making Embarrassment is considerably greater in

the MPU_f+PU_f conditions than in the MPU_s+PU_s conditions despite their equivalent Amounts of Yielding.¹ Since MPU_f+PU_f subjects are, so to speak, in the "danger zone" with respect to embarrassment, we can expect their degree of resistance to have a distinct effect on their degree of embarrassment. Probably because reciprocity-attraction was not introduced systematically, there are fair differences among MPU_f+PU_f subjects in their Length of Resistance; and this measure, in fact, correlates with Decision-making Embarrassment .46 ($p < .01$). On the other hand, this correlation is only .16 ($p > .20$) in the MPU_s+PU_s conditions, where subjects are by and large not in the "danger zone".

All in all, then, we have very clear indications that embarrassment played its role in the public conditions. The data are quite in line with the underlying assumptions of our model given the unexpected reciprocity-attraction factor. Since this factor worked in direct opposition to embarrassment with respect to Amount of Yielding, the net effect was to diminish the difference in yielding between MPU_s+PU_s and MPU_f+PU_f subjects. Had either factor been absent, the differences would presumably have been much greater.

In concluding this chapter, we might consider the general problem of how future experiments might be designed differently to eliminate the reciprocity-attraction factor from the public conditions and isolate the effects of embarrassment on yielding. In our earlier

¹The respective means are 5.65 and 3.31; $t = 4.91$, $p < .01$. On the other hand, because no external factors held back the yielding of PR_f subjects, their level of Decision-making Embarrassment does not differ from that of PR_s subjects. The respective means are 4.15 and 4.08. The BRL change data shows a similar trend (though not significant). MPU_f+PU_f and MPU_s+PU_s subjects are most widely separated in arousal level during influence, while PR_s and PR_f subjects are intermediate.

discussion we noted that reciprocity-attraction arose primarily as a result of the confederates' role in manipulating subjective public image-esteem; and that reciprocity was made especially salient by the structure of the influence setting. This suggests two possible modifications of the manipulations: (1) the confederates might play a less direct role in the manipulation of subjective public image-esteem (e.g., merely look on while the subject fails, or perhaps while the experimenter does the criticizing); (2) the influence setting might be less "zero-sum" (e.g., more like an Asch setting).

We are not really convinced that either of these modifications should be introduced in future experiments. It would seem that to eliminate effectively the reciprocity-attraction factor entails too great a departure from both the optimal influence setting and the optimal manipulation of subjective public image-esteem. In our own experiment, once we became aware of this factor, we had no difficulty in discerning the modified role of embarrassment. In fact, because this factor acted to equalize yielding in the $MPU_f + PU_f$ and $MPU_s + PU_s$ conditions, it permitted us to verify directly that subjects with higher Embarrassment Potentials are more embarrassed by a given degree of resistance. Further, because reciprocity-attraction was introduced unsystematically and apparently held back $MPU_f + PU_f$ subjects to differing degrees, it permitted us to verify directly that embarrassment is a positive function of resistance. Thus, apart from the fact that reciprocity-attraction is of interest in its own right, if it is controlled more carefully, it can actually be a useful tool in verifying some of the assumptions which underlie the model of

embarrassment and social influence. What we sorely lacked in our own experiment were good measures of reciprocity and attraction. But if a future experiment incorporated such measures and attempted a more systematic manipulation of reciprocity-attraction, it could yield a very satisfactory test of an expanded model of embarrassment, reciprocity-attraction, and social influence.

Summary and Conclusions

We began the chapter by explaining how our influence situation was designed to maximize the role of embarrassment. We noted that resisting influence in this situation should lead to increasing embarrassment. We then proceeded to develop a mathematical model of embarrassment and social influence using the framework of utility theory. By making certain assumptions about a subject's utility for time and disutility for embarrassment, we arrived at a series of equations relating the variables and parameters of the model. These equations showed the existence of various associations among the variables and parameters. By assuming that our experimental measures assessed these parameters and variables within a linear transformation, we were able to transform the associations into predictions about the inter-correlations among our experimental measures.

These predictions proved distinctly wrong when they were tested on the combined data of all six experimental conditions. A closer look at the data revealed that, while PR_f subjects yielded more than PR_s subjects as anticipated, $MPU_s + PU_s$ subjects actually yielded more than $MPU_f + PU_f$ subjects. This suggested that the model might be applicable to the private conditions, but that some unanticipated factor had affected the yielding behavior of public condition subjects.

We were able to verify that the model accounted for the behavior of $PR_s + PR_f$ subjects by verifying that our predictions were supported by the private conditions data.

We then proceeded to examine two factors which could have unexpectedly affected the behavior of public condition subjects. We noted that several studies have verified that subjects who are more attracted to a group are more inclined to conform to its requests and to desire greater future participation in it. We then suggested that our manipulation of public image-esteem might have reduced the group's attractiveness to $MPU_f + PU_f$ subjects, while increasing its attractiveness to $MPU_s + PU_s$ subjects. We noted that, while our data and those of others gave us no clear basis for saying that $MPU_f + PU_f$ subjects were much less attracted to the group, there were a number of small indications that they might be slightly less attracted. These indications were most clear for MPU_f subjects.

Next we viewed the laboratory situation from the perspective of social exchange theory. We suggested that $MPU_s + PU_s$ subjects became involved in a positive reciprocity spiral vis-a-vis other team members, while $MPU_f + PU_f$ subjects became involved in a negative reciprocity spiral. We noted that the "zero-sum" nature of our influence situation made it particularly sensitive to states of positive or negative indebtedness. We examined some experimental data which suggested that public condition subjects were more prone than private condition subjects to view the influence situation in a context of social exchange. We also noted that $MPU_f + PU_f$ subjects felt more short-changed than $MPU_s + PU_s$ subjects despite their lower yielding.

Finally, we turned back to our model in an effort to verify that embarrassment still played a role in the influence situation, despite the counter-effects of attraction and reciprocity. We noted that such additional factors, coupled with our basic assumptions, should produce new and different associations between certain variables in our original model. We were able to verify that these associations existed in our data, thus demonstrating that embarrassment was operating in the public conditions, though its effect on yielding was overshadowed by the other factors. We concluded by noting that, since embarrassment worked in opposition to these factors, the net effect was to reduce the differences in yielding between $MPU_s + PU_s$ subjects on the one hand, and $MPU_f + PU_f$ subjects on the other.

CHAPTER VI

ON EMBARRASSMENT IN RETROSPECT

At the conclusion of each chapter reporting data, we presented a summary of the empirical findings in that chapter. Consequently, in the present chapter, we shall not become involved in a systematic review of all our results. Rather, our strategy will be to re-examine our two major propositions on embarrassment in the light of our general findings. We shall begin by examining the proposition relating self image-esteem and subjective public image-esteem to embarrassment, and then proceed to the one relating Embarrassment Potential to social influence. Having brought to a close this more formal discussion, we shall conclude with a brief informal excursion into a form of embarrassment which remains pleasantly mystifying.

The Embarrassment Variable System

To review the implications of our data, it is useful to state our basic proposition on embarrassment in the following form: a loss of subjective public image-esteem exerts downward pressure on self image-esteem, and a loss of self image-esteem resulting from such pressure is associated with embarrassment. In discussing the validity of this proposition we need to ask three types of questions. (1) Does a loss of subjective public image-esteem tend to produce embarrassment? A related question is: do factors which can act to facilitate losses

of subjective public image-esteem increase the severity of embarrassment? (2) Does a loss of subjective public image-esteem produce embarrassment by operating to lower self image-esteem? A related question is: do factors which can act to facilitate losses of self image-esteem increase the severity of embarrassment? (3) Does embarrassment always have to be associated with a loss of subjective public image-esteem? Or stated differently, if self image-esteem is part of the embarrassment variable system, might not embarrassment result from losses of self image-esteem caused by factors other than losses of subjective public image-esteem? In the ensuing two sections we shall attempt to bring both our logic and our empirical findings to bear on these three types of questions.

1. Subjective Public Image-esteem and Embarrassment--Our data are quite unequivocal in showing that a loss of subjective public image-esteem produces embarrassment. In the laboratory we saw that subjects who were criticized for their poor performance reported feeling more embarrassed than subjects who were not criticized, as well as more embarrassed than subjects who performed well or were praised for their performance. The factor analysis performed on the questionnaire data revealed that almost all the embarrassing situations included therein could be clearly seen as representing different subclasses of threats to public image--as reflecting different types of social events which could decrease subjective public image-esteem. One apparent failure in this analysis involved situations with sexual overtones; a problem we shall take up in the concluding section of this chapter.

The general nature of our results concerning social influence also points to the important role of subjective public image-esteem.

When placed in a situation where resistance entailed embarrassment through increasing losses of subjective public image-esteem, subjects were remarkably compliant. Rather than suffer the loss of subjective public image-esteem, they admitted a willingness to return to the laboratory, during the last week of classes, for an exceedingly large number of hours. Even without considering the MPU_s and PU_s subjects, who were motivated in part by reciprocity-attraction, the average was seven hours. More directly, we saw that those public condition subjects who tended to resist because of the reciprocity-attraction factor (thereby incurring greater losses of subjective public image-esteem), became more embarrassed.

Other results, also, highlight the role of loss of subjective public image-esteem as a controlling variable. Both the questionnaire and laboratory data indicated that factors which acted to increase this loss, for a given defect in self-presentation, were associated with more severe embarrassment. Personality variables which made an individual more sensitive to his public image, and more prone to perceive it as deficient in an embarrassing situation, increased his general Embarrassability. In particular one combination of traits--high empathy plus a feeling that others generally perceive one as inadequate--led to a marked susceptibility to embarrassment. The mere fact that an individual was more empathic was not sufficient to increase his Embarrassability significantly; rather, empathy heightened the effect of general inadequacy feelings. We verified that subjects with this combination of traits became more embarrassed in the experimental setting. Further, we verified that those with general inadequacy feelings tended to perceive their public image as more deficient following a failure.

The social influence data indicated that subjects whose prior public image-esteem was low (making them more prone to suffer greater current losses), were more embarrassed than subjects whose prior public image-esteem was high, although both sets of subjects resisted comparable amounts.

In general, then, there seems no question but that a loss of subjective public image-esteem generally produces embarrassment, and that more severe losses produce more severe embarrassment. We have many dove-tailing results which support this statement.

2. Self Image-esteem and Embarrassment--In considering the role of self image-esteem, we might begin by noting that the second question which we posed at the beginning of this chapter is not entirely appropriate. Specifically, within our framework, the question of whether embarrassment entails a loss of self image-esteem is not one which is open to empirical question. We take it as a matter of "intuitive fact" that a loss of self image-esteem is part and parcel of embarrassment. If we accept that a loss of subjective public image-esteem produces embarrassment, then we would argue that this variable must operate by lowering self image-esteem. Our argument is not quantitative; rather, it hangs on the "feeling" of embarrassment. We simply believe that no abstract cognition that others perceive one as deficient could possibly produce the phenomenology, psychology, and physiology of embarrassment; and, therefore, that this cognition must act to make the person perceive himself as deficient. This is not a rational process. Quite to the contrary, it is often highly irrational. It is not that the individual "really believes" he is deficient, but rather than he "really feels"

deficient. One cannot, so to speak, become impaled on the eyes of another unless one is somehow forced to see one's self through those eyes.

While we feel strongly that self image-esteem is a critical conceptual variable in our framework, we are perfectly willing to admit that it may not add much to our practical ability to understand an individual's response to an embarrassing incident. It might be argued, for example, that the loss of self image-esteem is often so transitory--something akin to a flash--that we cannot hope to observe it, and hence, for practical purposes, we might just as well forget it. This argument we would counter by saying that, while we may never be able to observe the flash itself, we can certainly observe its effects on embarrassment, and thereby study the factors which supposedly control its intensity. But more to the point, one might argue that, once a certain degree of loss of subjective public image-esteem has been firmly established, the ensuing loss of self image-esteem is determined so rapidly and automatically that there is simply no point in searching for further factors which can affect the severity of this loss. This, we believe, is the critical argument and it is the one toward which we shall direct our discussion of the empirical findings. When we ask whether a loss of self image-esteem is a necessary condition for embarrassment, we do not ask whether self image-esteem tends to be forced downward by a loss of subjective public image-esteem. Rather, we ask whether the effects of this force can be augmented or counteracted by external factors--whether it is a partly open causal system.

On the whole, our findings suggest external factors may have an effect on this system, but they are hardly conclusive. Our attempts to shed direct light on this question were frustrated by a partial failure of one of our experimental manipulations. In conditions where subjects were criticized for their poor performance, informing them that their task was particularly difficult failed to alleviate their propensity to deride their own performance. This may reflect the absolute magnitude of their task-failure, or it may reflect an over-riding impact which subjective public image-esteem has on self image-esteem. There are data to support either interpretation. The subjects' actual levels of task performance related inversely to their loss of self image-esteem. On the other hand, degree of loss of self image-esteem was also positively associated with degree of loss of subjective public image-esteem. Moreover, subjects who did not experience the communicated loss of public image-esteem did not suffer as great a loss of self image-esteem (the PR_f subjects).

Our efforts to demonstrate that external factors, in the form of personality traits, could act to augment or counteract losses of self image-esteem in an embarrassing situation, were relatively unsuccessful. Unstability of self-concept failed to emerge as a correlate of Embarrassability. While low self esteem was moderately related, it was not clear how much of this was due to its association with a feeling that others generally perceive one as inadequate. Certainly, it operated like this latter variable in that high empathy increased its relationship with Embarrassability. This finding is difficult to interpret unless one assumes that low self esteem affects

one's perception of how others perceive one, rather than the impact of this on self-image.

Our data on social influence gave us the strongest indication that external factors can affect the loss of self image-esteem. We saw that two groups of subjects, very similar in their prior subjective public image-esteem but very different in their prior self image-esteem, responded quite differently to the influence attempt. When placed in the influence setting, the group with low prior self image-esteem (who according to our theory should be less capable of counter-acting current downward pressure on their self image-esteem) were much more compliant, suggesting a greater vulnerability to embarrassment. We find this last result encouraging. However, even this result is open to re-interpretation. As we shall review presently, certain of our results suggest that lowered self image-esteem can produce imagined losses of public image-esteem. Hence, low prior self image-esteem may increase current embarrassment by facilitating the loss of subjective public image-esteem. We hardly consider the question closed; we feel there is sufficient evidence to warrant a continuation of the search for factors which can affect severity of embarrassment by intervening between loss of subjective public image-esteem and loss of self image-esteem.

Though one might argue that if there is a loss of subjective public image-esteem, it will be the completely overriding factor, no one would maintain that losses of self image-esteem cannot result from other sources. This raises the question of whether such losses resulting from other sources can produce embarrassment. Or to put it differently, is it necessary to have a loss of subjective public image-esteem to produce embarrassment?

On the basis of our laboratory data we would tend to answer this question affirmatively. When we observed two groups of subjects who had no public image but who performed very differently on their task, we discovered that, contrary to expectations, the group who had performed very badly (PR_f subjects) reported being more embarrassed. We explained this, partly, by noting that this group actually did have a pale version of a public in the form of a passive observer. More interestingly, however, we discovered that the relationship between self image-esteem and subjective public image-esteem was more complex than we had imagined. Specifically, we observed a mild tendency for low self image-esteem to act back on subjective public image-esteem and lower it. The worse PR_f subjects felt they did on their task, the more they tended to imagine that their teammates had a low opinion of their abilities, despite the fact that their teammates could have no possible knowledge of their performance. Moreover, this unfounded loss of subjective public image-esteem was associated with embarrassment. Since these subjects were about to engage in a public task performance, we suggested that their unfounded loss of subjective public image-esteem was, in effect, anticipatory. They essentially extrapolated from their current performance, and imagined the consequences of their upcoming public performance. This setting may not be atypical of everyday life. Any defect which is clearly observable in private may return to haunt a person in public. From the perspective of embarrassment, this tends to blur the distinction between private and public. Thus, while "private" embarrassment certainly appears to be milder, it nevertheless seems to exist. Most important, it too is associated

with a milder, anticipatory imagined loss of public image-esteem.

Embarrassment and Social Influence

Our basic proposition on embarrassment and social influence took the following form: if in a particular social situation resisting social influence tends to decrease subjective public image-esteem, then an individual's resistance to such influence will be inversely related to his Embarrassment Potential. Our laboratory setting was designed to be optimal with respect to linking resistance with continuing losses of subjective public image-esteem. In our mathematical derivation of the above proposition, our critical assumption involved the notion that resisting social influence in an optimal setting was increasingly embarrassing to a subject, and that this was more so the greater his Embarrassment Potential. Hence, in discussing the validity of this proposition, we need to ask three questions. (1) Does resistance in the optimal social setting lead to embarrassment? (2) Does a higher Embarrassment Potential lead to greater embarrassment for a given degree of resistance? (3) Does a higher Embarrassment Potential lead to greater compliance?

Originally we had not hoped to be able to answer the first two questions, except by implication from an affirmative answer to the third one. For, as our mathematical work showed, when subjects' compliance is controlled by their Embarrassment Potentials, they should not resist to degrees that would produce levels of embarrassment which differed much from one subject to the next. However, we discovered that subjects in the MPU_f and PU_f conditions were being affected by an unexpected factor, external to our theory, which tended to hold back their compliance. Because this reciprocity-attraction

factor, presumably, held back these subjects to different degrees, we were able to observe subjects with varying degrees of resistance. We observed a positive association between degree of resistance and severity of embarrassment, which permits us directly to answer the first question affirmatively.

The unexpected factor also gave us the opportunity to answer the second question directly. This factor acted to reduce the resistance of MPU_s and PU_s subjects while increasing the resistance of MPU_f and PU_f subjects. As a result, on the average, these two sets of subjects resisted comparable amounts while differing widely in their Embarrassment Potentials. And, we were able to observe that MPU_f and PU_f subjects, who had the higher Embarrassment Potential, became on the average much more embarrassed by the influence attempt.

More generally, and in line with an affirmative answer to both the first two questions given the unexpected factor, we observed a positive association between embarrassment and resistance as well as a positive association between embarrassment and Embarrassment Potential, in the combined public conditions.

Unfortunately the blessings of unexpected factors can be only so many, and in the end this factor tended to blur our answer to the third question. We discovered the unexpected factor by an analysis of the experimental setting which was backed by tangential empirical findings. Specifically, we noted good reasons for believing that MPU_f and PU_f subjects felt somewhat less attracted, and considerably less indebted, to their teammates than MPU_s and PU_s subjects. This reciprocity-attraction factor was apparently created by the manipulation of subjective public image-esteem, for it did not appear to be present

in the private conditions. Being thereby closely associated with Embarrassment Potential, it counteracted the effects of this variable on compliance in the public conditions. Subjects with the higher Embarrassment Potential (MPU_f and PU_f subjects) were actually slightly less prone to comply. Hence, to the extent that Embarrassment Potential is increased by a communicated loss of public image-esteem, and to the extent that the "optimal" setting acts to heighten the effects of reciprocity-attraction, the answer to the third question appears to be negative. Higher Embarrassment Potential is not necessarily associated with greater compliance.

However, a weaker manipulation of Embarrassment Potential, which does not introduce the reciprocity-attraction factor, can reinstate the expected association. In the private conditions Embarrassment Potential was not manipulated by communicated losses of subjective public image-esteem, and the reciprocity-attraction factor did not appear. When Embarrassment Potential was thus increased only by a loss of self image-esteem, its relation with compliance became strongly positive. Thus while, in general, there is a positive association between compliance and Embarrassment Potential, certain social processes which increase this latter variable can produce side-effects which will override its effects on compliance.

* * * * *

This concludes our re-examination of the basic propositions in the light of our empirical findings. We would say that our empirical work has made six primary contributions to the theory of embarrassment and social influence--some conclusive and some merely provocative. (1) It verified that embarrassment is closely associated

with losses of subjective public image-esteem. (2) It verified that resisting persistent, face-to-face influence is embarrassing, and that such a form of influence is extremely potent. (3) It verified that general susceptibility to embarrassment (Embarrassability) is increased by the possession of certain personality traits: high test anxiety, low self esteem, and especially the combination high empathy and low subjective public esteem. (4) It verified that susceptibility to embarrassment on a particular occasion (Embarrassment Potential) is increased by certain qualities of prior self image and prior subjective public image: low self image-esteem and low subjective public image-esteem. (5) It verified that high Embarrassment Potential is generally associated with susceptibility to persistent face-to-face influence, but also indicated that certain social processes which increase Embarrassment Potential can create side factors which will tend to augment resistance in such a setting. (6) It pointed to at least two complexities in the causal association between loss of self image-esteem and loss of subjective public image-esteem: the probability of a feedback system from the former to the latter, producing "private" embarrassment; the possibility of a closed causal system from the latter to the former which prevents external factors from affecting the degree of loss of self image-esteem which stems from a given loss of subjective public image-esteem.

Embarrassment and "Unattributes"

We began this paper by saying that embarrassment was a pervasive yet mystifying phenomenon. We hope that the intervening pages have helped to dispel some of the mystery. But lest there be any danger of all perplexity vanishing, we would like to conclude by exploring

a class of embarrassing situations which remain somewhat elusive-- a class which includes many of the situations with sexual overtones. If this class is to be made amenable to analysis within our framework, it necessitates making certain interesting assumptions about the social psychology of "images".

As a prototype of these situations, consider the following incident. A professor arrives at his class and places a parcel on his desk. Shortly thereafter he begins lecturing, making extensive use of the blackboard. At a certain point he becomes aware of suppressed laughter in the class. Upon turning to face them, he discovers that the parcel has fallen open, revealing his baby's diapers. He becomes embarrassed. Now, let us suppose that what has happened here is that the contents of the parcel have conjured up a picture of the professor changing his baby's diapers. The crucial question from our perspective is this: if the professor knows he is a "diaper-changer" and accepts this fact, and if the class knows he is a father and that fathers are "diaper-changers"--then why does the revelation of this attribute in this setting constitute the revelation of a deficiency? Why does the professor lose subjective public image-esteem and self image-esteem? We readily admit that the contents of the parcel have conjured up a picture which is inconsistent with the professor's current public image, but if anything this implies confusion, not embarrassment.

The fact of the matter is that the professor really does not wish to be seen as a "diaper-changer" on this occasion. In some special sense, this attribute is less valued than those he would like to be demonstrating, and both he and the class have been attempting

to maintain the polite fiction that he possesses no such attribute. But this is only a special case; there is a general phenomenon here which is like something out of 1984. It would seem that on less intimate occasions the participants, by some process of "double-think", transform attributes which everyone knows everyone else possesses into unattributes whose existence is collectively denied. Hence our learned professor who is lecturing not only does not change diapers, but he actually has no genitals, and he never urinates or defecates. Although each participant knows the others possess these unattributes, nonetheless the social reality of the occasion prevents them from acknowledging this. As in the tale of the Emperor's Clothes, each sees himself and the others as arrayed in a fictitious set of garments--a very fine set of garments that only an unsocialized child would fail to acknowledge.

The fascinating point is that this social reality treats unattributes as if they were deficiencies. To behave in a manner which implies the possession of unattributes can be as embarrassing as the revelation of any deficiency. Moreover, to imply that another possesses unattributes constitutes an improper and tactless destruction of his image. Most of the embarrassing situations, from our questionnaire study, which loaded on Factor V can be seen to involve an inadvertent calling of attention to unattributes. In one case a bathroom (a private locale where unattributes become salient) is unexpectedly invaded by an intruder. In another case an unzipped fly acts as a constant reminder of certain unattributes.

All this is quite perplexing. Since most unattributes are universally possessed, they can hardly have any logical implications for

adequate social functioning. Why then must they be blotted from the images of participants to an occasion? It is not that perpetuating certain types of polite fictions about one another's images cannot be functional to the occasion. If our professor had an obvious physical stigma, it would certainly be a courtesy to him to treat him as if this did not exist. Or again, if our professor were obviously drunk, it would certainly help maintain the structure of the class interaction to treat him as if he were stone sober. But it is not at all clear that accepting the fact that he defecates or changes diapers would do damage either to him or to the structure of the interaction. After all, there is no real danger that the professor might produce a baby and start changing its diapers. And yet the revelation of these facts not only embarrasses the professor but also disrupts the structure of the occasion.

We do not intend to unravel, here, the mechanisms which may underlie this phenomenon, but it would seem that unattributes are less valued in a very special sense. It is not that they are dysfunctional for attaining the goals of the occasion or even of the wider society. Rather unattributes are deficient in more primitive psychological and social terms. They tend to be attributes which, relative to those most salient on an occasion, are more demeaning, less refined--in a word, less civilized. In our own society they are often attributes which relate man to his animal ancestors. They are our evolutionary stigmata. We seem peculiarly Victorian in our concern with denying attributes pertaining to bodily functioning--especially to the eliminatory and reproductive systems. Just as the desirability of all attributes is defined by the social environment, so the

relegation of attributes to the status of unattributes is a collective decision. Even in our own society, intimate occasions permit a free acknowledgment of animal-attributes that must become unattributes on more formal occasions. Again, cultures differ in their tolerance for the animal side of man. In Paris men urinate on the sidewalk in semi-private cubicles, but Americans find this almost as embarrassing to observe as to perform.

The nature of unattributes highlights the ultimate irrationality of embarrassment--the complete absurdity of the sense of deficiency it entails. In effect, one can become embarrassed over the revelation of a trait which everyone, including one's self, knows everyone else possesses--a trait which, despite this, has been conveniently obliterated from the social reality of an occasion. But like all psychic phenomena, unattributes have an ultimate rationality of their own. If no one much likes to think of himself as part animal, then why not help one another to maintain the pleasing fiction that our selves consist of little more than our faces, our clothes and our minds? Above all else, the phenomenon of embarrassment demonstrates that man needs to believe he possesses desirable traits, though their exact nature may vary from occasion to occasion. In the end we are what we think we are. If we present ourselves with care and if others are willing to cooperate, there is no reason why, in a social setting, we cannot be whatever we wish to be.

APPENDIX I

QUESTIONNAIRE STUDY: OPENING INSTRUCTIONS,
SELF-RATING INVENTORY BOOKLET, LITERATURE
EMPATHY QUESTIONNAIRE BOOKLET, ANSWER BOOKLET,
LIST OF ITEMS ON EACH SCALE,
SCORING CRITERIA FOR LITERATURE EMPATHY TEST

I. General Instructions for the Questionnaire Study

You should have in your possession three separate booklets:

1. Self-rating Inventory Booklet
2. Literature-Empathy-Questionnaire Booklet
3. Answer Booklet

Throughout the questionnaire you will be using the Answer Booklet, at times in conjunction with one of the two remaining booklets. YOU ARE TO WRITE ONLY IN THE ANSWER BOOKLET. PLEASE DO NOT MAKE ANY MARKS IN THE OTHER TWO BOOKLETS AS THEY MUST BE USED BY OTHERS.

Proceed in the following manner:

1. Fill in the requested information on the front page of the Answer Booklet.
2. Read the instructions on the front page of the Self-rating Inventory Booklet:
3. Proceed with the Self-rating Inventory following the directions on page 1 of the Answer Booklet.
4. Thereafter, follow the directions in the Answer Booklet in the order which you come to them.

Other subjects will be participating in this study over the next 8 to 10 weeks, and it is important that they not know about it ahead of time. THEREFORE, PLEASE DO NOT DISCUSS YOUR ANSWERS OR ANY PART OF THIS QUESTIONNAIRE EITHER BEFORE, WHILE OR AFTER ANSWERING IT FOR A PERIOD OF ABOUT TWO MONTHS.

Thank you for your help.

Self-Rating Inventory Booklet¹GENERAL INSTRUCTIONS FOR SELF-RATING INVENTORY

We are interested in studying peoples' concept of themselves. We are therefore asking you to rate yourself on various personality traits. Follow these instructions carefully.

1. You will be rating yourself on each of a number of traits on a ten point scale. In rating yourself, compare yourself with the other men in your class. If you think you rate in the top 10% of your class on a trait you would give yourself a 10; if you think you rate in the bottom 10%, you would give yourself a 1, and so on.
2. Take a fresh approach on each trait. Your rating on one trait should not affect your rating on another one. There is no reason why you should not see yourself as low on some traits, high on others, and in between on still others.
3. You will be asked to rate yourself several times following different instructions on the SELF-RATING INVENTORY BLANKS. It is important that you make each set of ratings without referring to the others. Therefore, after you have completed each set of ratings, fold back the page and do not refer back to it again when you make your later ratings.
4. In order to help you be objective in rating yourself, each trait is described in the third person instead of the first person (e.g., "he is tall", rather than "I am tall"). Try to step outside of yourself and see yourself objectively. Your ratings will be of value only insofar as you are frank and honest in rating yourself. These ratings will be kept entirely confidential. You are not being evaluated by us in any sense. You are simply evaluating yourself as a contribution to psychological research. The results will always be interpreted and analyzed in terms of the group, not by individuals.

PROCEED TO NEXT PAGE AND SELF-RATING INVENTORY BLANK NO. 1.

¹This is a shortened and slightly modified version of the instrument developed by Brownfain (1951).

Self-Rating Inventory Booklet (Cont.)

Ratings are to be distributed over the 10-point scale in the manner described under GENERAL INSTRUCTIONS. Only the extremes of the scale, point "1" (low), and point "10" (high) are defined. The low end describes in approximate terms the 10% of the class who stand lowest on a particular trait, while the high end describes the 10% who stand highest in the class. Actual ratings will be made and recorded according to the instructions on the blanks in your possession.

LOW END (1)

-versus-

HIGH END (10)

1. DEPENDABILITY

Is among the least reliable in a group in a number of ways. Might fail to keep promises, appointments, or to return borrowed things. Lacks a sense of responsibility to others.

He is among the most dependable; can be relied upon to meet his obligations and to fulfill his responsibilities to others.

2. SPORTSMANSHIP

Tends to be a poor loser and a boastful winner; can't take a joke.

Can take victory in stride, and defeat gracefully; can take a joke as well as give one.

3. UNDERSTANDING OF OTHERS

Tends to be insensitive and blind to the needs and feelings of other people; doesn't understand very well what makes other people "tick."

Is extremely sensitive to the needs and feelings of other people; shows good understanding of other people's personality.

4. MATURITY

In many ways "childish" and seems younger than actual age. Simply is not "grown-up." Is among the least mature in the class.

Is grown-up and mature emotionally. Behavior impresses as being extremely adult.

5. SINCERITY

Is insincere; you can't tell whether or not he is kidding or means what he says and does.

Is sincere in what he says and does; you can always tell whether he is being serious or has tongue in cheek.

LOW END (1)

HIGH END (10)

6. INITIATIVE

Is dependent upon others; has trouble making up his own mind; seems to need reassurance and support from others.

Is self-reliant and has great initiative; makes up own mind without difficulty; does not lean on others in situations calling for independent action.

7. SOCIAL POISE

Is inclined to be awkward and clumsy in social situations; seems embarrassed or shy in meeting with classmates or adults.

Acts skillfully and gracefully in social situations; is confident and at ease in mixing with classmates and adults.

8. SELF-CONTROL

Tends to loose temper easily; easily becomes upset, moody, or overly aggressive when things do not go his way.

Has very good control of temper, emotions, and moods. Calmly tries to find solutions to frustrating events.

9. INTELLIGENCE

Is among the least bright in the class. Is not especially quick or alert in grasping complex ideas and tasks.

Is among the most brilliant in the class. Is alert, quick, and imaginative in comprehending complex ideas and tasks.

10. CHEERFULNESS

Tends to be pessimistic and "sour" about life; is something of a "wet blanket" in social groups.

Is unusually cheerful and optimistic about things; tends to spread good spirits in a group.

Literature Empathy Questionnaire Booklet¹GENERAL INSTRUCTIONS

In the following booklet you will find three brief stories. Read each one carefully, in turn, trying to get a "feel" for the characters in each one. Pay particular attention to the character named at the top of each story. At the end of each story you will find a series of incomplete sentences, each to be completed with one of four choices (a, b, c, or d). As you finish each story, complete the following incomplete sentences AS YOU THINK THE CHARACTER NAMED AT THE TOP OF EACH STORY WOULD COMPLETE THEM. Write your choice in the Literature-Empathy-Questionnaire Blank, in the spaces provided. Remember, complete each sentence stem not from your own point of view, but FROM THE POINT OF VIEW OF THE CHARACTER NAMED AT THE TOP OF EACH STORY. You may look back at the story if you wish.

PLEASE PROCEED WITH THE FIRST STORY. MAKE SURE YOU HAVE THE LITERATURE-EMPATHY-QUESTIONNAIRE BLANK BEFORE YOU WHEN RECORDING YOUR ANSWERS.

¹This is a shortened but otherwise unmodified version of the instrument developed by Mahoney (1960).

Lit. Emp. Booklet (Cont.)

I. Dempsey

The guy on my left was a regular. Every Friday night since I could remember, he had sat in that same seat on the aisle. He was broad and beefy-faced, with a high-blood pressure complexion and a big mouth. He was powerfully built, despite the pot belly and spreading rump of middle age. The first night he sat next to me he bought me a beer, told me to keep him in mind next time I bought a new car, and handed me his card. Name was Dempsey. "Edward J. (Champ) Dempsey," it said on the card. "No, no relation to Jack," he chuckled. "We went to different schools together."

He had a ridiculous pride in his ability to keep up a running patter of public speech throughout any fight. Years before he had appointed himself a sort of one-man clique to urge the fighters on to bloodier efforts, and whenever the boys in the ring decided to take it a little easy, coasting around or feeling each other out, his throaty witticisms would pierce the dark and smoky silence: "Turn out the lights, they want to be alone!" or "Hey, girls, can I have the next dance?" Or if one of the boxers happened to be Jewish, he was quick to show what a linguist he was by yelling, "Hit him in the kishges," or display his knowledge of geography by shouting, "Send him back to Jerusalem!"

The fellow who always sat on my right was George Rogers, a big-money lawyer, but his seat was empty tonight. "Well, looks like our old friend George is playing hooky tonight, ha ha ha," Dempsey said. Just before the first preliminary boys climbed through the ropes, the usher led to Rogers' seat a fellow I had never seen before. He was short, thin, nervous, somewhere in his middle thirties, but already beginning to stoop from the waist like a much older man. His skin was pallid, he wore glasses, and he needed only the green eyeshade to become my stereotype of a bookkeeper.

"Excuse me, sir," he said as he squeezed by. "I am sorry to disturb you."

That wasn't what they usually said when they shoved past you at the Arena. Dempsey looked at him the way a gang leader eyes a new kid who has just moved into the block.

"Where's my old pal George tonight?" he wanted to know.

The man was shy and his answer came in a thin voice, "Mr Rogers is out of town on business, sir. He was good enough to give me his ticket."

Lit. Emp. Booklet (Cont.)

"You in Rogers' office?" Dempsey appraised him with a salesman's eyes.

The newcomer said yes, not too encouragingly, but it was enough for Dempsey to lean across me and display his professional smile. "Dempsey's the name. What's yours, fella?"

"Glover," the fellow said, but he did not seem very happy about it.

"Glover!" Dempsey shuffled quickly through thousands of calling cards in his mind. "Used to know a Charley Glover back in K.C. fifteen years ago. Any relation to old Charley?"

"I've never had any relatives in the Middle West," Glover answered.

"Well, I won't hold it against you, ha ha ha," Dempsey said. "Here, have a cigar."

Glover said he didn't smoke cigars, and Dempsey lit his, igniting the match with a flick of his thumbnail. "So you work for Rogers, huh," he went on. "Well, George is a very, very good friend of mine. What are you, a junior partner?"

"Oh, no," Glover said, and something that was almost a smile lit his face for a moment, as if at the impossibility of such a suggestion. "I am a stenographer."

Dempsey's smile, or rather, his clever imitation of a smile, wiped from his face mechanically, like a lantern slide. When he abandoned it suddenly like that, his face looked even more bloated and aggressive than usual.

"A stenographer! Ha ha ha. Are you kidding?"

"Mr. Rogers has employed nothing but male stenographers for over thirty years."

1. When fire starts:
 - a. there is usually smoke
 - b. someone should put it out
 - c. I wouldn't know what to do
 - d. is the time to get out.

2. One's closest friends can
 - a. help one to become more honestly aware of oneself
 - b. stab you in the back if you don't watch out
 - c. be a comfort to you as you grow older
 - d. be helpful if they want to be.

Lit. Emp. Booklet (Cont.)

3. The most pleasant dreams
 - a. are of girls, what else?
 - b. that men have are usually sinful
 - c. are where your wishes come true
 - d. curiously enough, are probably not always remembered.
4. The nicest thing about being a child
 - a. is having a good mother to care for you
 - b. is not having to fill out tax returns
 - c. is the ability to believe with faith
 - d. is you don't have to think of anyone else but yourself.
5. A man can stop beating his wife only if
 - a. she stops nagging him
 - b. he confesses the error of his ways
 - c. she relinquishes her unconscious wish to be beaten
 - d. he is punished for it.
6. A masculine woman should
 - a. keep the hell away from me
 - b. provide an interesting scientific study on sexual development
 - c. dress so as to look more feminine
 - d. be pitied.
7. Too much distance lies between
 - a. what is and what seems to be
 - b. what children want and what they should want
 - c. New York and Paris
 - d. people and the church.
8. The deeper one goes
 - a. the harder it is to get out of debt
 - b. just doesn't make any sense
 - c. the more he will find good in people
 - d. into a subject the more he will know about it.
9. There is hardly any
 - a. justice in a world divided
 - b. thing a person can't do if they try hard enough
 - c. real men left in the world these days
 - d. rest and peace on this earth.
10. There would be more divorces if
 - a. there were more drinking in the world
 - b. people gave way to their instincts as animals do
 - c. men had their way
 - d. women weren't so tolerant of their husbands.
11. When an animal is wild
 - a. it is free and beautiful
 - b. it will be bad and hurt people
 - c. the authorities should capture it or shoot it
 - d. is the time to go hunting.

Lit. Emp. Booklet (Cont.)

12. The easiest way to get money
- a. is to borrow it
 - b. usually is wrong and should not be done
 - c. is an elusive dream that plagues the human race
 - d. should not have to be always on one's mind.

II. Mrs. Bennet

It is a truth universally acknowledged that a single man in possession of a good fortune must be in want of a wife.

However little known the feelings or views of such a man may be on his first entering a neighborhood, this truth is so well fixed in the minds of the surrounding families, that he is considered as the rightful property of someone or other of their daughters.

"My dear Mr. Bennet," said the lady to him one day, "have you heard that Netherfield Park is let at last?"

Mr. Bennet replied that he had not.

"But it is," returned she, "for Mrs. Long has just been here, and she told me all about it."

Mr. Bennet made no answer.

"Do you not want to know who has taken it?" cried his wife impatiently.

"You want to tell me, and I have no objection to hearing it."

This was invitation enough.

"Why, my dear, you must know, Mrs. Long says that Netherfield is taken by a young man of large fortune from the north of England; that he came down on Monday in a chaise and four to see the place, and was so much delighted with it, that he agreed with Mr. Morris immediately; that he is to take possession before Michaelmas, and some of his servants are to be in the house by the end of next week."

"What is his name?"

"Bingley."

"Is he married or single?"

Lit. Emp. Booklet (Cont.)

"Oh! single, my dear, to be sure! A single man of large fortune; four or five thousand a year. What a fine thing for our girls!"

"How so? How can it affect them?"

"My dear Mr. Bennet," replied his wife, "how can you be so tiresome! You must know that I am thinking of his marrying one of them."

"Is that his design in settling here?"

"Design! Nonsense, how can you talk so! But it is very likely that he may fall in love with one of them, and therefore you must visit him as soon as he comes."

"I can see no occasion for that. You and the girls may go, or you may send them by themselves, which perhaps will be still better, for as you are as handsome as any of them, Mr. Bingley might like you the best of the party."

"My dear, you flatter me. I certainly have had my share of beauty, but I do not pretend to be anything extraordinary now. When a woman has five grown-up daughters, she ought to give over thinking of her own beauty."

"In such cases, a woman has not often much beauty to think of,"

"But, my dear, you must indeed go and see Mr. Bingley when he comes into the neighborhood."

"It is more than I engage for, I assure you."

"But consider your daughters. Only think what an establishment it would be for one of them. Sir William and Lady Lucas are determined to go, merely on that account, for in general, you know, they visit no newcomers. Indeed you must go, for it will be impossible for us to visit him if you do not."

"You are over-scrupulous, surely. I dare say Mr. Bingley will be very glad to see you; and I will send a few lines by you to assure him of my hearty consent to his marrying whichever he chooses of the girls; though I must throw in a good word for my little Lizzy."

"I desire you will do no such thing. Lizzy is not a bit better than the others; and I am sure she is not half so handsome as Jane, nor half so good-humoured as Lydia. But you are always giving her the preference."

Lit. Emp. Booklet (Cont.)

"They have none of them much to recommend them," replied he. "They are all silly and ignorant, like other girls; but Lizzy has something more of quickness than her sisters."

"Mr. Bennet, how can you abuse your own children in such a way? You take delight in vexing me. You have no compassion of my poor nerves."

"You mistake me, my dear. I have a high respect for your nerves. They are my old friends. I have heard you mention them with consideration these twenty years at least."

"Ah! You do not know what I suffer."

"But I hope you will get over it, and live to see many young men of four thousand a year come into the neighborhood."

"It will be no use to us, if twenty such should come, since you will not visit them."

"Depend upon it, my dear, that when there are twenty, I will visit them all."

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"Aye, there she comes," continued Mrs. Bennet, "looking as unconcerned as may be, and caring no more for us than if we were at York, provided she can have her own way. But I tell you what, Miss Lizzy--if you take it into your head to go on refusing every offer of marriage in this way, you will never get a husband at all--and I am sure I do not know who is to maintain you when your father is dead. I shall not be able to keep you--and so I warn you. I have done with you from this very day. I told you in the Library, you know, that I should never speak to you again, and you will find me as good as my word. I have no pleasure in talking to undutiful children. Not that I have much pleasure, indeed, in talking to anybody. People who suffer as I do from nervous complaints can have no great inclination for talking. Nobody can tell what I suffer! But it is always so. Those who do not complain are never pitied."

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Lit. Emp. Booklet (Cont.)

"I do not blame Jane," she continued, "for Jane would have got Mr. Bingley if she could. But Lizzy! Oh, sister! It is very hard to think that she might have been Mr. Collins's wife by this time, had it not been for her own perverseness. He made her an offer in this very room, and she refused him. The consequence of it is, that Lady Lucas will have a daughter married before I have, and that Longbourn estate is just as much entailed as ever. The Lucases are very artful people indeed, sister. They are all for what they can get. I am sorry to say it of them, but so it is. It makes me very nervous and poorly, to be thwarted so in my own family, and to have neighbors who think of themselves before anybody else. However, your coming just at this time is the greatest of comforts, and I am very glad to hear what you tell us, of the latest fashions."

1. Children are usually certain that
 - a. their mother will always be there to take care of them
 - b. they will get what they want, some way or other
 - c. their parents do not know what is best, when actually they do
 - d. their inner feelings and experiences will be a mystery to the adults around them.

2. The hardest decisions
 - a. are to keep from getting gyped when you're making a deal
 - b. should be made only after careful consideration of all available information
 - c. should be taken to God in prayer
 - d. you make are the ones others do not accept.

3. The white girl who married the colored man
 - a. will not have any more decent friends, and rightly so
 - b. was probably a slut anyway
 - c. must have had her reasons
 - d. was probably forced into it by him.

4. If people only knew how much
 - a. I suffer
 - b. goodness and kindness can do
 - c. they do not understand the world about them
 - d. a good cigar costs they wouldn't bum them so much.

5. People refrain from murder only because
 - a. it isn't right in the eyes of God
 - b. it's against the law
 - c. of their inner feelings brought about by a process of socialization
 - d. they have the good sense to think of what it would mean to their family.

Lit. Emp. Booklet (Cont.)

6. The finger pointed
 - a. at the sinner
 - b. inward
 - c. to the nearest exit
 - d. the proper way.

7. The two most beautiful things I have ever seen
 - a. were falling Jap planes and the U.S.A.
 - b. were a mother and her baby
 - c. were a set of the most fragile china and a beautiful lace tablecloth
 - d. were the mountains in the evening and a sunrise at dawn.

8. A woman who has lost her virtue must
 - a. pray for forgiveness
 - b. have been having a good time for herself
 - c. not have thought very much of her family
 - d. beware the wrath of the righteous.

9. The worst thing about being sick
 - a. is when no one comes to visit you
 - b. is being dependent and helpless
 - c. is the bills you have to pay afterward
 - d. is the lack of sympathy you get from others.

10. There would be more divorces if
 - a. there were more drinking in the world
 - b. people gave way to their instincts as animals do
 - c. men had their way
 - d. women weren't so tolerant of their husbands.

11. A large crowd
 - a. usually leads one astray
 - b. is usually very unruly and lacking in courtesy
 - c. is what I like
 - d. is often an excellent place to observe human nature.

12. Twenty years from now
 - a. the problems of tomorrow will be past history
 - b. I'll be eating steak and retired
 - c. I don't even want to think about
 - d. I won't be sorry for the hardships I have today.

Lit. Emp. Booklet (Cont.)

III. Kelcey's Mother

As it grew toward seven o'clock the little old woman became nervous. She often would drop into a chair and sit staring at the little clock.

"I wonder why he don't come," she continually repeated. There was a small, curious note of despair in her voice. As she sat thinking and staring at the clock the expressions on her face changed swiftly. All manner of emotions flickered in her eyes and about her lips. She was evidently perceiving in her imagination the journey of a loved person. She dreamed for him mishaps and obstacles. Something tremendous and irritating was hindering him from coming to her.

She had lighted an oil lamp. It flooded the room with vivid yellow glare. The table, in its oil-cloth covering, had previously appeared like a bit of bare brown desert. It now was a white garden, growing the fruits of her labour.

"Seven o'clock," she murmured, finally. She was aghast.

Then suddenly she heard a step upon the stair. She sprang up and began to bustle about the room. The little fearful emotions passed at once from her face. She seemed now to be ready to scold.

Young Kelcey entered the room. He gave a sigh of relief, and dropped his pail in a corner. He was evidently greatly wearied by a hard day of toil.

The little old woman hobbled over to him and raised her wrinkled lips.

"Hello!" he cried, in a voice of cheer. "Been gettin' anxious?"

"Yes," she said, hovering about him. "Where yeh been, George? What made yeh so late? I've been waitin' th' longest while. Don't throw your coat down there. Hang it up behind th' door."

The son put his coat on the proper hook, and then went to splatter water in a tin wash-basin at the sink.

"Well, yeh see, I met Jones--you remember Jones? Ol' Handyville fellah. An' we had t' stop an' talk over ol' times. Jones is quite a boy."

The little old woman's mouth set in a sudden straight line. "Oh, that Jones," she said. "I don't like him."

Lit. Emp. Booklet (Cont.)

The youth interrupted a flurry of white towel to give a glance of irritation. "Well, now, what's th' use of talking that way?" he said to her. "What do yeh know about him? Ever spoke to 'im in yer life?"

"Well, I don't know as I ever did since he grew up," replied the little old woman. "But I know he ain't th' kind a' man I'd like t' have you go around with. He ain't a good man. I'm sure he ain't. He drinks."

Her son began to laugh. "Th' dickens he does!" He seemed amazed, but not shocked, at this information.

She nodded her head with the air of one who discloses a dreadful thing. "I'm sure of it! Once I saw 'im comin' out a' Simpson's Hotel, up in Handyville, an' he could hardly walk. He drinks! I'm sure he drinks!"

"Holy smoke!" said Kelcey.

They sat down at the table and began to wreck the little white garden. The youth leaned back in his chair, in the manner of a man who is paying for things. His mother bended alertly forward, apparently watching each mouthful. She perched on the edge of her chair, ready to spring to her feet and run to the closet or the stove for anything that he might need. She was as anxious as a young mother with a babe. In the careless and comfortable attitude of the son there was denoted a great deal of dignity.

"Yeh ain't eatin' much t'-night, George."

"Well, I ain't very hungry, to tell th' truth."

"Don't yeh like yer supper, dear? Yeh must eat somthin', child. Yeh mustn't go without."

"Well, I'm eatin' somthing', ain't I?"

He wondered aimlessly through the meal. She sat over behind the little blackened coffee-pot and gazed affectionately upon him.

1. A person is most helpless when
 - a. he's broke and owes everybody money
 - b. he loses his mind
 - c. he has turned from God and his family
 - d. society and his friends have turned against him.

Lit. Emp. Booklet (Cont.)

2. The easiest way to get money
 - a. is to borrow it
 - b. usually is wrong and should not be done
 - c. is an elusive dream that plagues the human race
 - d. should not have to be always on one's mind.

3. At the end of the road
 - a. they found the dead body
 - b. God will take care of you if you've been good
 - c. I'll at last get some rest
 - d. can be taken either figuratively or literally.

4. When a person is ill
 - a. his cosmos, more than ever, is himself
 - b. he needs someone to care for him
 - c. he should go right to bed at once
 - d. he should see a doctor.

5. It is often hard to sleep when
 - a. the bed is too hard
 - b. you can't help thinking of all the bad things that might happen to someone you love
 - c. you have so many plans to make for the next day
 - d. the nervous system is in a state of excitation.

6. A drunken woman
 - a. should not be associated with
 - b. is a wicked, sinful creature
 - c. is probably a slut
 - d. will meet with much sorrow under usual circumstances.

7. Down underground
 - a. the temperature is constant
 - b. there are subways
 - c. lie the dead
 - d. it is all dirty and cold.

8. Failure may be expected when
 - a. you can't get people to work with you
 - b. one is afraid to succeed
 - c. the breaks go against you
 - d. God wants to test your faith.

9. When an animal is wild
 - a. it is free and beautiful
 - b. it will be bad and hurt people
 - c. the authorities should capture it or shoot it
 - d. is the time to go hunting.

Lit. Emp. Booklet (Cont.)

10. Few things are less attractive than
 - a. an ugly woman
 - b. a drunken woman
 - c. an unintelligent woman
 - d. an unladylike woman.

11. People shouldn't
 - a. think bad thoughts
 - b. gossip so much
 - c. be so concerned with what they shouldn't do
 - d. run down their country.

12. Children are usually certain that
 - a. their mother will always be there to take care of them
 - b. they will get what they want, some way or other
 - c. their parents do not know what is best, when actually they do
 - d. their inner feelings and experiences will be a mystery to the adults around them.

Answer Booklet

1. Name _____

2. Year of Birth (Circle one)

After							Before
1947	1947	1946	1945	1944	1943	1942	1942

3. Class (Circle one)

1) Fr. 2) Soph. 3) Jr. 4) Sr. 5) Special

4. Code No. (leave blank) _____

Answer Booklet (Cont.)

SELF-RATING INVENTORY BLANK NO. 1

Now keeping the general instructions in mind, rate yourself on each of the items making up the inventory as YOU REALLY THINK YOU ARE. Make the most accurate estimate of HOW YOU SEE YOURSELF and write the numerical scale value (from 1 to 10) of this self-rating on the little line opposite each trait name. Be sure to refer to the description of each trait in the General Instructions Booklet.

	<u>Rating Scale</u>
_____ 1. Dependability	10 - In the <u>Top</u> 10% of the males in your college class
_____ 2. Sportsmanship	9 - In the second 10% from the top
_____ 3. Understanding of Others	8 - In the third 10% from the top
_____ 4. Maturity	7 - In the fourth 10% from the top
_____ 5. Sincerity	6 - In the 10% just above the middle
_____ 6. Initiative	<u>Middle</u>
_____ 7. Social Poise	5 - In the 10% just below the middle
_____ 8. Self Control	4 - In the fourth 10% from the bottom
_____ 9. Intelligence	3 - In the third 10% from the bottom
_____ 10. Cheerfulness	2 - In the second 10% from the bottom
	1 - In the <u>Bottom</u> 10% of the males in your college class

WHEN YOU HAVE FINISHED THIS SET, FOLD BACK THE PAGE AND DO NOT REFER BACK TO THESE RATINGS. PROCEED WITH THE INSTRUCTIONS ON SELF-RATING INVENTORY BLANK NO. 2.

Answer Booklet (Cont.)

SELF-RATING INVENTORY BLANK NO. 2

Most people are not entirely certain as to exactly where they stand on these traits as compared to other people. We still want to know HOW YOU SEE YOURSELF, but with this difference. This time rate yourself taking a favorable view of yourself. Give yourself the benefit of any reasonable doubt you may have on any trait and rate yourself the HIGHEST THAT YOU REALISTICALLY THINK YOU ARE on that trait. Remember, be realistic in your favorable self-rating. Do not, without careful consideration, give yourself a high rating on every trait.

Rating Scale

_____ 1. Dependability	10 - In the <u>Top</u> 10% of the males in your college class
_____ 2. Sportsmanship	9 - In the second 10% from the top
_____ 3. Understanding of Others	8 - In the third 10% from the top
_____ 4. Maturity	7 - In the fourth 10% from the top
_____ 5. Sincerity	6 - In the 10% just above the middle
_____ 6. Initiative	<u>Middle</u> 5 - In the 10% just below the middle
_____ 7. Social Poise	4 - In the fourth 10% from the bottom
_____ 8. Self Control	3 - In the third 10% from the bottom
_____ 9. Intelligence	2 - In the second 10% from the bottom
_____ 10. Cheerfulness	1 - In the <u>Bottom</u> 10% of the males in your college class

WHEN YOU HAVE FINISHED THIS SET, FOLD BACK THE PAGE AND DO NOT REFER BACK TO THESE RATINGS. PROCEED WITH THE INSTRUCTIONS ON SELF-RATING INVENTORY BLANK NO. 3.

Answer Booklet (Cont.)

SELF-RATING INVENTORY BLANK NO. 3.

We are still interested in HOW YOU SEE YOURSELF. This time when you are uncertain as to exactly where you stand on each trait as compared to other people, rate yourself taking an unfavorable view of yourself. Do not give yourself the benefit of any reasonable doubt on any trait and rate yourself the LOWEST THAT YOU REALISTICALLY THINK YOU ARE on that trait. Remember, be realistic in your unfavorable self-rating. Do not, without careful consideration, give yourself a low rating on every trait.

Rating Scale

_____ 1. Dependability	10 - In the <u>Top</u> 10% of the males in your college class
_____ 2. Sportsmanship	9 - In the second 10% from the top
_____ 3. Understanding of Others	8 - In the third 10% from the top
_____ 4. Maturity	7 - In the fourth 10% from the top
_____ 5. Sincerity	6 - In the 10% just above the middle
_____ 6. Initiative	<u>Middle</u>
_____ 7. Social Poise	5 - In the 10% just below the middle
_____ 8. Self Control	4 - In the fourth 10% from the bottom
_____ 9. Intelligence	3 - In the third 10% from the bottom
_____ 10. Cheerfulness	2 - In the second 10% from the bottom
	1 - In the <u>Bottom</u> 10% of the males in your college class

WHEN YOU HAVE FINISHED THIS SET, YOU HAVE COMPLETED THE SELF-RATING INVENTORY. PROCEED TO THE LITERATURE-EMPATHY-QUESTIONNAIRE BLANK ON THE NEXT PAGE. READ THE DIRECTIONS ON THE LITERATURE-EMPATHY-QUESTIONNAIRE BOOKLET, BEFORE ATTEMPTING TO BEGIN.

Answer Booklet (Cont.)

LITERATURE-EMPATHY-QUESTIONNAIRE BLANK

There are three columns below, one for each of the three sub-sets of stories and incomplete sentences in the Literature-Empathy-Questionnaire. Print the letter (a, b, c, or d) corresponding to the answer you choose after the item number in the space provided. Be sure you use the appropriate column for the appropriate sub-set of incomplete sentences.

I. DEMPSEY	II. MRS. BENNET	III. KELCEY'S MOTHER
1. _____	1. _____	1. _____
2. _____	2. _____	2. _____
3. _____	3. _____	3. _____
4. _____	4. _____	4. _____
5. _____	5. _____	5. _____
6. _____	6. _____	6. _____
7. _____	7. _____	7. _____
8. _____	8. _____	8. _____
9. _____	9. _____	9. _____
10. _____	10. _____	10. _____
11. _____	11. _____	11. _____
12. _____	12. _____	12. _____

WHEN YOU HAVE COMPLETED THE LITERATURE-EMPATHY-QUESTIONNAIRE, PROCEED TO THE NEXT PAGE AND READ THE DIRECTIONS FOR THE MULTIPLE CHOICE BATTERY.

Answer Booklet (Cont.)

At various points in the following battery you will find items which describe certain situations and ask you to state how embarrassed you would feel in such situations. Embarrassment is a social emotion which almost everyone has experienced on repeated occasions; yet it is an emotion we know very little about. Despite its universality, people have some difficulty in knowing just when they are embarrassed, and are reluctant to admit it when they are. For this reason the items dealing with embarrassment are presented in a number of separate sub-sections. We hope you will deal with these items with particular care. If we are to learn about the situations which people find embarrassing, it is essential that you be as frank as possible in describing your own reactions to each situation.

You are probably vaguely familiar with the symptoms of embarrassment, but in order to be sure that we mean the same thing by the term, a few words will be said about it. Generally embarrassment involves feeling self-conscious, awkward, discomforted, or exposed because of the nature of a social situation. Remember that you may feel embarrassed for yourself or for someone else. Remember also that mild embarrassment differs considerably from acute embarrassment while still being a form of embarrassment. Mild embarrassment generally involves: a very slight self-consciousness, a mild sensation of awkwardness and uneasiness, and a slight feeling of uncertainty about what to do or say next. On the other hand, acute embarrassment can be extremely unpleasant involving: blushing, fumbling, severe self-consciousness, strong sensations of awkwardness and discomfort, a panicky feeling of being unable to react appropriately to the situation which has been created, and a strong desire to escape the situation and the presence of others.

Here is the first set of situations. Try to imagine as vividly as possible that each of these events is happening to you. If they have occurred to you in the past, think back to how you felt at the time. Then, state how embarrassed you would feel if the event were actually happening to you by placing a check ANYWHERE on the line below each item at the point which best describes your own reaction.

- 1) Suppose you were just beginning a talk in front of the class.¹

I would feel acutely embarrassed: extremely self-conscious, awkward, and uncomfortable

I would feel fairly embarrassed: somewhat self-conscious, and rather awkward and uncomfortable

I would not feel the least embarrassed: not awkward or uncomfortable at all

¹On the actual questionnaire, each embarrassment item had a scale below it identical to the one below this item; to save space, this scale will be omitted from ensuing embarrassment items.

Answer Booklet (Cont.)

- 2) Suppose you slipped and fell on a patch of ice in a public place, dropping a package of groceries.
- 3) Suppose you were a dinner guest, and the guest seated next to you spilled his plate on his lap while trying to cut the meat.
- 4) Suppose someone stopped you on the street by asking you something, and he turned out to be quite drunk and incoherent.
- 5) Suppose a group of friends were singing "happy birthday" to you.
- 6) Suppose you discovered you were the only person at a particular social occasion without a coat and tie.
- 7) Suppose you were watching an amateur show and one of the performers was trying to do a comedy act, but was unable to make anyone laugh.
- 8) Suppose you were calling up a girl you had just met for the first time in order to ask her for a date.
- 9) Suppose you were muttering aloud to yourself in an apparently empty room and discovered someone else was present.
- 10) Suppose you walked into a bathroom at someone else's house and discovered it was occupied by a female.

- - - - -

Respond to the following items by circling the alternative, or placing a check at the point on the scale, which best describes your response to the item.

- 11) I can remember "playing sick" to get out of something.

1. True	2. False
---------	----------

- 12) On a few occasions, I have given up doing something because I thought too little of my ability.

1. True	2. False
---------	----------

Answer Booklet (Cont.)

Here is another series of situations that some people may find embarrassing. Again, try to imagine as vividly as possible that each of these events is happening to you. If they have occurred to you in the past, think back to how you felt at the time. Then state how embarrassed you would feel by the event by placing a check ANYWHERE on the line below each item at the point which best describes your reaction.

- 31) Suppose you were watching a play from the audience when it suddenly became clear that one of the actors had forgotten his lines, causing the play to come to a standstill.
 - 32) Suppose you were unable to stop coughing while listening to a lecture.
 - 33) Suppose you were being lavishly complimented on your pleasant personality by a girl on your first date.
 - 34) Suppose you were in a class and you noticed that the teacher had completely neglected to zip his fly.
 - 35) Suppose you entered an apparently empty classroom, turned on the lights, and surprised a couple necking.
 - 36) Suppose you were talking to a stranger who stuttered badly due to a speech impediment.
 - 37) Suppose your mother had come to visit you and was accompanying you to all your classes.
 - 38) Suppose you were a dinner guest and could not eat the main course because you were allergic to it.
 - 39) Suppose you were alone in an elevator with a professor who had just given you a bad grade.
 - 40) Suppose a shabbily dressed man accosted you on the street and asked you for a handout.
- - - - -

Answer Booklet (Cont.)

Respond to the following items by circling the alternative, or placing a check at the point on the scale, which best describes your response to the item.

- 41) Before taking a course examination, to what extent are you aware of an "uneasy feeling"?

I am not aware of it at all Am very much aware of it

- 42) While taking a course examination to what extent do you perspire?

never perspire perspire a lot

- 43) My table manners at home are as good as when I eat out in a restaurant.

1. True 2. False

- 44) I never hesitate to go out of my way to help someone in trouble.

1. True 2. False

- 45) I am always careful about my manner of dress.

1. True 2. False

- 46) How often do you have the feeling that there is nothing you can do well?

1. very often 2. fairly often 3. some-times 4. once in a great while 5. practically never

- 47) How readily do you complain to a waitress about the poor quality of food or service in a restaurant?

1. very readily 2. fairly readily 3. fairly re-luctantly 4. very re-luctantly 5. extremely reluctantly

- 48) I have never intensely disliked anyone.

1. True 2. False

- 49) It is sometimes hard for me to go on with my work if I am not encouraged.

1. True 2. False

Answer Booklet (Cont.)

- 58) While taking a course examination, to what extent do you experience an accelerated heartbeat?

heartbeat does
not accelerate
at all

heartbeat
noticeably
accelerated

- 59) I have never been irked when people expressed ideas very different from my own.

1. True

2. False

- 60) There have been occasions when I felt like smashing things.

1. True

2. False

- 61) I am always courteous, even to people who are disagreeable.

1. True

2. False

- 62) When you are trying to win in a game or sport and you know that other people are watching you, how rattled or flustered do you usually get?

1. very 2. fairly 3. slightly 4. not very 5. not at all

- - - - -

Here is a final set of situations which some people may find embarrassing. Again, try to imagine each one as vividly as possible.

- 63) Suppose you were walking into a room full of people you did not know and being introduced to the whole group.

- 64) Suppose you tripped and fell while entering a bus full of people.

- 65) Suppose you were opening some presents while the donors were sitting around watching.

- 66) Suppose you asked someone on crutches if he had suffered from a skiing accident and he blushed and replied that, no, he was crippled by polio when a child.

Answer Booklet (Cont.)

- 67) Suppose you had forgotten an appointment with a professor, and remembered it as you met him in the hall the next day.
- 68) Suppose you were conversing in a small group which included a blind student, when someone next to him unthinkingly made a remark about everyone being "blind as a bat."

Respond to the remaining items by circling the alternative, or checking the point on the line, which best describes your response to the item.

- 69) If you know that you are going to take a course examination, how do you feel beforehand?

feel very unconfident	feel very confident

- 70) After you have taken a course examination, how confident do you feel that you have done your best?

feel very unconfident	feel very confident

- 71) How often do you worry about criticisms that might be made of your work by whoever is responsible for checking up on your work?

- | | | | | |
|------------------|--------------------|-------------------|-----------------------------|-------------------------|
| 1. very
often | 2. fairly
often | 3. some-
times | 4. once in a
great while | 5. practically
never |
|------------------|--------------------|-------------------|-----------------------------|-------------------------|

- 72) How readily do you complain to a store about the quality of some merchandise you have purchased?

- | | | | | |
|--------------------|----------------------|----------------------------|--------------------------|-----------------------------|
| 1. very
readily | 2. fairly
readily | 3. fairly re-
luctantly | 4. very re-
luctantly | 5. extremely
reluctantly |
|--------------------|----------------------|----------------------------|--------------------------|-----------------------------|

- 73) I have almost never felt the urge to tell someone off.

- | | |
|---------|----------|
| 1. True | 2. False |
|---------|----------|

- 74) When I don't know something I don't at all mind admitting it.

- | | |
|---------|----------|
| 1. True | 2. False |
|---------|----------|

Answer Booklet (Cont.)

75) Do you ever think that you are a worthless individual?

1. very often 2. fairly often 3. some-
times 4. once in a
great while 5. practically
never

76) Do you find it hard to make talk when you meet new people?

1. very 2. fairly 3. slightly 4. not very 5. not at all

77) How readily would you save several extra seats in a crowded movie theater for some friends who said they would come late?

1. very readily 2. fairly readily 3. fairly re-
luctantly 4. very re-
luctantly 5. extremely
reluctantly

78) When you have made an embarrassing mistake or have done something that makes you look foolish, how long do you usually keep on worrying about it?

1. very 2. fairly 3. slightly 4. not very 5. not long
at all

79) Before voting I thoroughly investigate the qualifications of all the candidates?

1. True 2. False

80) I sometimes try to get even, rather than forgive and forget.

1. True 2. False

81) There have been times when I was quite jealous of the good fortune of others.

1. True 2. False

82) When you think about the possibility that some of your friends or acquaintances might not have a good opinion of you, how concerned or worried do you feel about it?

1. very 2. fairly 3. slightly 4. not very 5. not at all

83) How readily do you go and see a professor in order to complain about a low grade which you feel is unjustified?

1. very readily 2. fairly readily 3. fairly re-
luctantly 4. very re-
luctantly 5. extremely
reluctantly

Answer Booklet (Cont.)

94) When you are trying to convince other people who disagree with your ideas, how worried do you usually feel about the impression you are making?

1. very 2. fairly 3. slightly 4. not very 5. not at all

95) There have been occasions when I took advantage of someone.

1. True 2. False

96) How often do you worry about whether other people like to be with you?

1. very 2. fairly 3. slightly 4. not very 5. not at all

The Scales and Items Constituting ThemList of Items on Each Scale

1. Self Esteem (Brownfain)¹--Self-Rating Inventory Booklet and Self-Rating Blank No. 1 in Answer Booklet.
2. Unstability of Self Concept (Brownfain)²--Self-Rating Inventory Booklet and Self-Rating Blanks No. 2 and No. 3 in Answer Booklet.
3. Embarrassment Scale³--items no: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 63, 64, 65, 66, 67, and 68 in Answer Booklet.
4. Feelings of Inadequacy (Janis and Field)⁴--items no: 13, 18, 21, 25, 29, 30, 46, 51, 54, 62, 71, 75, 76, 78, 82, 86, 90, 94, and 96 in Answer Booklet.
5. Literature Empathy Test (Mahoney)⁵--Literature Empathy Questionnaire Booklet.
6. Test Anxiety (Mandler and Saranson)⁶--items no: 15, 16, 23, 24, 41, 42, 56, 57, 58, 69, and 70 in Answer Booklet.
7. Need for Social Desirability (Marlowe and Crowne)⁷--items no: 11, 12, 14, 17, 20, 26, 27, 43, 44, 45, 48, 49, 50, 52, 53, 59, 60, 61, 73, 74, 79, 80, 81, 84, 85, 87, 88, 91, 92, and 95 in Answer Booklet.

¹For non-obvious information on scoring see Brownfain (1951, 1952); item scores are added to form the scale.

²For information on scoring see discussion in Chapter Two and Brownfain (1951, 1952).

³For non-obvious information on scoring see discussion in Chapter Two; item scores are added to form the scale.

⁴For non-obvious information on scoring see Janis and Field (1959); item scores are added to form the scale.

⁵For scoring information see next page.

⁶For non-obvious information on scoring see Sarason and Mandler (1952); item scores are added to form the scale.

⁷For non-obvious information on scoring see Crowne and Marlowe (1964); items scores are added to form the scale.

Scoring Criteria for Literature Empathy Test

(taken from Mahoney, 1960)

Score: Right minus Wrong¹

Number of Items Scored for "Right": 36

Number of Items Scored for "Wrong": 24

Possible Range of Scores: 0-36¹

<u>Dempsey</u>			<u>Mrs. Bennet</u>			<u>Kelcey's Mother</u>		
Item No.	Right Ans.	Wrong Ans.	Item No.	Right Ans.	Wrong Ans.	Item No.	Right Ans.	Wrong Ans.
1	d	c	1	c	d	1	c	d
2	b	a	2	d	a	2	b	c
3	a	d	3	a	c	3	b	d
4	b	c	4	a	d	4	b	a
5	a	c	5	d	c	5	b	d
6	a	b	6	d	b	6	b	d
7	c	a	7	c	a	7	c	a
8	a	c	8	c	b	8	d	b
9	c		9	d		9	b	
10	c		10	d		10	b	
11	d		11	b		11	a	
12	a		12	c		12	a	

¹Mahoney adds a positive constant to each subject's score in order to avoid negative scores. We converted all negative scores to zero. Less than 5% of subjects received zero scores.

APPENDIX II

LABORATORY EXPERIMENT:

CODING INSTRUCTIONS FOR OVERT EMOTIONAL
TENSION AND CODING INSTRUCTIONS FOR FACEWORK

On Coding Overt Emotional Tension

General

In general, whenever an instance of the behavior described in the coding categories is manifested, you are to score a mark in the corresponding category. However, if you are certain that the behavior in question is not a manifestation of tension, do not score it. In general, changes in focus of attention are an indication that the simultaneous behavior is not a manifestation of tension. For example, a movement of the arm or head which corresponds with a discarding of one anagram to proceed to another one would not be scored, unless the movement was particularly agitated. Similarly, movements associated with shifting to a writing or telephoning position would not be scored. Similarly, any movements associated with initially engaging a staff man in conversation are not scored. On the other hand, any movements occurring once the interaction with a staff man has begun (except glancing) should be scored. Similarly any movements made while keeping attention on a particular anagram should be scored.

The Categories

A. Body

1. Shifts buttocks - This includes any behavior which results in a movement of the buttocks in the chair.
2. Shifts posture - This includes any movements of the torso which result in a new posturing of the body. For example leaning more to one side, or leaning more forward or backward. It also includes a momentary shift which culminates in the original posture. For example, straightening from a crouching position and then returning to it. In general, if posture shifting is associated with buttock shifting score it only in the latter category.
3. Shakes head (side to side) - This includes only traditional side to side headshaking. It does not include tilting or raising the head. A particularly expressive, or violent head tilt or half-shake should, however, be scored. All normal movements of the head should be ignored. Do not, of course, score a headshake if it is associated with a negative reply to some staff question.

B. Hands

1. To head area - This includes any behavior involving a movement of the hand from a position not in contact with the head area, to a position in contact with the head area.

Coding Overt Emotional Tension (Cont.)

Any movements involving a shift in hand contact from one part of the head area to another, should be scored only under the next category. If the hand movement is associated with a shift in attention, do not score it. If the hand movement is associated with some codable body movement, score both. If the hand movement is associated with behaviors described in the next category, score both.

2. Rubbing, scratching, fidgeting - This category refers only to the head area. Any other instances of fidgeting are coded under B3 (fumbling, fidgeting). It includes any movements of the hand while on the head, neck area. It also includes biting the fingers or hand.
3. Fumbling, fidgeting - This is a relatively broad category including all spurious touching or manipulation of objects with hand, which is not included in the above categories. It includes clenching, scratching or rubbing one hand; clenching, scratching or rubbing one arm or hand with the other; rubbing, or fidgeting with clothes or any other objects within reach; drumming fingers on the table. Score instances of these behaviors even if they are of brief duration.

C. Face

1. Frowns, grimaces - This category is difficult to define more precisely than the words which describe it. Basically it includes movements of the forehead, cheeks and mouth which indicate puzzlement, unhappiness, stress, etc.
2. Bites, licks, compresses lips - This category should be self-explanatory.
3. Smiles, laughs - This category should be self-explanatory. Smiling may be difficult to distinguish from certain instances of lip compression, or even grimacing. No general rules can be given. When in doubt, score under the latter categories. Smiling is usually associated with appropriate changes in the appearance of the eyes and cheeks.
4. Blushes - This category may be hard to score, partly because blushing is hard to see and partly because it is not associated with any attention-getting movement. In general, watch for it at times when the subject is glancing at the staff or observer, or when the staff man first enters his room.

Coding Overt Emotional Tension (Cont.)

D. Eyes

1. Squints, screws - This includes movements in the eye area which do not seem to be associated with frowning or grimacing. If they are, score them under the latter category.
2. Glances at observer - This category is self-explanatory.
3. Glances at staff - This category should be scored only when the subject is not engaged in interaction with the staff.

E. Voice

Mutters, complains, sighs - This includes any instances of vocal exclamations indicating stress. It does not include forming letters or words with the lips while working on an anagram.

F. Legs and Feet

Jiggles and/or shifts - This includes reasonably rythmical movements of the legs and feet including tapping, as well as any other movements of the legs and feet, such as wiggling them or changing their position.

On Coding Facework

General

In general, the observer should put himself in the shoes of the staff-man and ask himself, "If this person (the lineman) were acting toward me (a team member) in this way, what would he be attempting to communicate to me about himself?" The facework categories are designed to capture the various ways in which a lineman may attempt to modify, or acquiesce in, the particular public image he has been saddled with as a consequence of the experimental manipulation.

Scoring Units

Each unit (statement) by the lineman is to be coded into one and only one category. The determination of a unit is not entirely unproblematical. Generally a unit consists of all that a lineman says between two non-trivial statements by the staff-man. A trivial statement consists of such phrases as "yes," "no," "uh-huh," "I see," "that's true." A non-trivial statement is one which introduces important new information which can distinctly affect the lineman's next utterance. A new question is the clearest example of a non-trivial statement by the staff-man. However, replies to a lineman's questions concerning other than clarification of the previous question, are generally non-trivial and should mark the beginning of a new unit.

Apart from the above general rule, a new unit should be created whenever the lineman clearly shifts to a new face-work category during the course of a continuing statement.

In summary, then, a unit will usually consist of all the subject says between the end of one staff question and the beginning of the next one. However, if the subject uses more than one line of facework, or if a non-trivial statement by the staff-man intervenes; additional units will be created.

The Facework Categories

A. Changes focus of attention

This includes all clear efforts to steer the subject of discussion away from his own performance. Hence introducing, "out of the blue" remarks about matters completely unrelated to the subject under discussion, e.g., the weather, unrelated paraphernalia or parts of the experiment, etc.

Coding Facework (Cont.)

B. Introduces mitigating information explaining poor performance

This includes the introduction of any information about factors influencing his performance which would encourage the staff-man to soften possible negative inferences drawn from this performance. Such factors may be of three general types:

- 1) Factors external to self over which he has minimal control (e.g., "The words were very hard," "The observer was watching me," "The lights were blinking," "The pressure was too great," "I'm sick," "I haven't slept in two days"). These should always be scored in this category.
- 2) Factors internal to self which he can control, but which represent careless or strategic errors highly unlikely to recur in the future (e.g., "I spent too much time on those I couldn't get," "I kept seeing four letter words," "I tried keeping the vowels separate"). These should always be coded in this category.
- 3) Factors internal to self, which he cannot control, reflecting lack of certain specific attributes useful but peripheral to solving anagrams (e.g., "I'm a poor speller," "My vocabulary isn't that good," "I haven't ever done this before"). These should be scored in this category, but distinguished from statements like "I'm stupid" (Category E), or "I'm just no good at anagrams or puzzles," (Category G).

C. Laughs it off, jokes about performance, states lack of real concern or involvement with situation or performance

This category actually includes two related lines of face-work. It is definitely not meant to include all cases of laughter and smiling, whether nervous or otherwise. "Laughing it off" means making statements with the following implications: "Look, my last performance was really quite silly; I'm not really that way at all. In fact, it was so atypical that I can laugh about it to show you that I don't take it seriously, and that you shouldn't either." In short, an effort is being made to induce the staff-man to view the performance humorously rather than seriously, by treating it in an off-hand, joking manner.

A related form of face-work, "role-distance," involves statements with the following implications "Look, this whole set-up is pretty silly and meaningless from the point of view of making inferences about me. I may have done well, and I may have done poorly, but you can't make any inferences about me from this. The task and situation are artificial and trivial, they hold no implications for my true abilities.

Coding Facework (Cont.)

Anyway, since the task was so meaningless and artificial, I wasn't really trying very hard. I certainly wouldn't want you to think that I was particularly concerned or involved with my performance." This latter line tends to be a more overt denial of the meaning of his performance. It tends to deny that this task, under any circumstances, could assess anything of importance. The former line, "laughing it off," concentrates more on denying the implications of a specific performance by treating it as atypical. Yet the two lines can easily run together as each supports the other. Since I suspect that they will usually occur together in mixtures, I am tentatively combining them into a single category.

Examples:

1. Makes some joke about performance indicating it is not to be taken seriously.
2. Shrugs off performance with alacrity; tends not to take staff questions seriously; seems to imply they are silly; reacts to pointed questions with a smile and a quip.
3. Deprecates significance of task as assessor of anything important to him or others.
4. States lack of interest, effort, or involvement in task.

D. Redeems self, introduces self-information compensating for, or contradicting performance.

Whereas in Category B are coded S's statements designed to encourage the staff-man to re-interpret his immediately preceding performance, in Category D are coded S's statements which seem designed to compensate for his performance without really explaining it or excusing it. They are designed either to make the past performance appear an enigma, or to call attention to other positive self-attributes.

Examples:

1. States past successes on tasks calling for similar abilities. For example, recalls success on previous trials.
2. Introduces other positive self-information; talks about relevant or non-relevant traits and skills which he possesses.

Coding Facework (Cont.)

3. Makes a point of explaining his strategy for solving anagrams, in a manner designed to impress staff-man.

E. Seeks denial of failure and/or support from other through exaggerated self-deprecation or apologies

This category includes statements about self or performance which seem designed to elicit a contradicting statement from the staff-man. They are in effect efforts to "fish" for support, by getting the staff-man to deny the veracity of his own self-deprecating statement. This category definitely does not include all statements about failure or poor performance. Generally statements of poor performance on the specific task, or of lack of ability in this area of problem-solving are scored under G. Only when such statements are very strong, or phrased as a rhetorical question ("I guess I'm pretty bad at this, huh?") will they be scored here. If the subject generalizes well beyond the relevant task area, then it is scored here. ("I guess I'm just not too bright.")

F. Is skeptical about failure, disbelieves reported norms

This category includes statements by S indicating skepticism about the relative poor quality of his performance. Though making no particular effort to explain away his performance, he finds it unbelievable that he is so far below average. He seems to have tacit confidence in his own abilities. This category differs from B in that no effort is made to explain away the paucity of his solutions; he does not emphasize the difficulty of the task. It differs from C in that no effort is made to deny the relevance of the task for inferring self-attributes, nor to shrug off the last performances as atypical. He reacts with puzzlement or disbelief to his performance.

Examples:

1. Treats information on poor performance with surprise, disbelief.
2. Asks questions of staff-man seeking explanation of his poor performance to emphasize puzzlement.
3. Asks if other lineman had similar words.

Coding Facework (Cont.)

G. Explicitly accepts responsibility for poor performance

This includes all statements accepting of poor performance without an attached disclaimer explaining it away. It also includes statements accepting the lack of attributes important to solving anagrams (e.g., "I'm no good at puzzles," "I can't juggle letters around in my head very well," "I just couldn't seem to do any after the first few"). This category also includes statements accepting personal responsibility for internal factors normally considered mitigating ("I spent too much time on each one, which was really stupid"; "I can't spell too well which I really should be able to do."). Finally, this category includes statements to the effect that he should have done better than he did, provided these do not include specific redeeming information (e.g., "I'm usually very good at anagrams," would not be scored under G).

Note that simply preferring an easier task next time is not automatically scored under G. In the subject's mind, the poor performance might be due to mitigating factors beyond his control. If he explains his choice by referring to his inability, then it is scored under G.

H. Overly brief, uncommunicative, or functional answers

This is largely a residual category including statements which have no implications for public image. Basically, it includes all straightforward responses to questions which simply transmit the minimal requested information (e.g., "I don't know," "yes," "no," "I guess so."). It may include detailed descriptions of an object or process elicited by a question. Finally, functional equivalents of "I don't know," should be scored in this category.

I. Clarification

Any statements designed to seek elaboration or clarification of an immediately preceding staff statement are scored in this category rather than H.

APPENDIX III

LABORATORY EXPERIMENT:

LISTS OF ANAGRAMS, TRANSCRIPTS OF CONFEDERATES' STATEMENTS,
PRIVATE CONDITION PERFORMANCE NORMS, SELF REPORT QUESTIONNAIRES,
SUPPLEMENTARY WRITTEN FEEDBACK TO SUBJECTS

Anagrams for Practice Task

Practice Task

1. T O O H T
2. V E L L E
3. I C H W H
4. D L W U O
5. L S A H L
6. E R O T H
7. R T S T A
8. R P Y T A
9. R B L O A
10. E H C B A
11. D M L O E
12. R B U A T

Anagrams for Job (Success Subjects)

LINE-MAN #1

TASK #26

Five Letters (Average Difficulty)

1. T G R E A
2. O U T B A
3. S T R I F
4. T E R A F
5. I G H T M
6. T H O E S
7. S L E P E
8. R I N G B
9. H E R E T
10. S M A T E
11. D A R R A
12. C A S S L
13. A C K B L
14. Q U E N E
15. E R N E V
16. A W R L C
17. D G R N A
18. D E R N T
19. Y N M O E
20. E H R L C

Anagrams for Job (Failure Subjects)

LINE-MAN #3

TASK #26

Five Letters (Average Difficulty)

1. R I G O N
2. T G R E A
3. H U G O L
4. O U T B A
5. D A T I R
6. V O R A W
7. E N I K L
8. Y R U N E
9. I M F T A
10. E R F N A
11. S D O N A
12. N S T U M
13. L C A Y U
14. A R B I T
15. A C N O G
16. E N O L Y
17. K E R I B
18. M U N I L
19. A R I G E
20. L O N F A

Transcript of Confederate's Arrangements withSubject for Upcoming Team Job

Hi, I guess I'm supposed to give you some information and make some arrangements with you.....(sits down.) Uhmmm, how many anagrams did you get on that practice set?.....Good, the sheet in there said that average for the practice trial is _____ (one less than the subject got), so you got one more than that. Looks like we might do all right on this thing!....

Let's see, the other staff-man and I have worked out a way of getting the anagrams you guys solve. Wait till you solve five of them, and then call them in to me on the phone. Every time you solve five call me up. That way you won't waste all your time dialing. I guess that's your phone right here (points to phone). Is that clear?..... Right, every time you solve a new set of five, you phone them in. ...Uhmm, we were looking over a crossword puzzle before, and it seems pretty easy to get the words into them once you guys solve the anagrams. So when I get everything set to go, I may have some time. If I do, I'll just come right in here and take some words down as you solve them. That will save you the trouble of even using the phone to call them in. O.K.?.....Is the overall procedure we're going to follow clear?....(Answers any questions)

O.K., let's see,....what kind of job would you like to start with; easy, average, or hard? We get more credit for harder jobs but I'm not sure we should try a hard one right off.....O.K., well, I have to check with the other staff-man to see what the other guy wants. I think we'll probably start with an average difficulty job....

That's it, I guess. (Stands up.) I'll bring in your anagram sheet in a minute....See you later.

Confederate's Form for Staff-Report Interview(See next page for transcript)

Staff-Report Interview

I. Staff Report

1. Time allowed..... _____
2. Difficulty level of job (# of letters)..... _____
3. Anagrams to solve and fit in crossword..... _____
4. Anagrams assigned to
 - a) own lineman..... _____
 - b) other lineman..... _____
5. Anagrams solved by
 - a) own lineman..... _____
 - b) other lineman..... _____
6. Difference between linemen..... _____
7. Total words received by staff..... _____
8. Words placed in crossword by staff (team score)..... _____
9. Average score on _____ job of _____ difficulty..... _____
10. Difference (team performance)..... _____

II. Staff Interview

1. Do you feel the staff's co-ordination of the team was all right on this last job--was it suited to your needs?
2. Were you aware of any factors which might help to explain your level of performance on the last task?
3. How well suited do you think you are for a line job and for a staff job in this organization? What kinds of abilities do you think each role calls for?

Confederate's Form for Staff-Report Interview (Cont.)

4. Generally speaking, apart from the present situation, how important to you are the skills involved in doing anagrams?
5. Were you putting much effort into your work this last time?
6. Would you rather we pick an easier job next time, a harder job, or stick to the same level?

Transcript of Confederate's Staff-Report to Success
[and Failure] Subject's Following Team Job

Hi....(sits down)....I'll go through this information on the job. Let's see....uhmm, we had ten minutes for this job. It was average difficulty--five letters--and a perfect score would have meant solving 40 anagrams and getting them all in the crossword puzzle. Each lineman had 20 anagrams to solve.

Now, you solved, uhmm, X [only X] of yours; is that right? Well, the other lineman solved only X-9 [X+9] of his. So you got 9 more [9 less] than he did which is really good [sort of...well, not too good],Altogether the staff received 2X-9 [2X+9] words from the two of you together, and we got them all in the crossword puzzle. So our team score was 2X-9 [2X+9]. Now, the sheet we had in there says that the average score for a first job of average difficulty is 2X-6 [2X+12] so we did somewhat below average. But it clearly wasn't your fault; to do better we'll have to get quite a few more words from the other guy [And to do better we'll have to get quite a few more words from you]. How did you manage to get so many of your anagrams? [How come you had so much trouble with your anagrams?....(Pulls out scrap of paper.)] You had an anagram that looked like this last time didn't you? Well, the answer to this is _____. When we were fitting the words into the crossword puzzle, we got the first four letters from other words, and we noticed one of your anagrams had the same four letters. Anyway, I thought you might be interested....] Uh-huh, well let me go on and ask you these questions I'm supposed to ask you. (Begins reading questions on staff interview--see previous page. Questions were read verbatim, and repeated in whole or in part when necessary to assure comprehension).

Private Success Performance Norms

PERFORMANCE NORMS (n = 75 Teams)

Five Letters (Average Difficulty)

Job #26

1. LINE-MEN
 - a. Anagrams to solve.....20
 - b. Mean number of anagrams solved by:
 - Line-man #1..... 8.4
 - Line-man #3..... 8.2

2. STAFF-MEN
 - a. Mean number of words received.....16.6
 - b. Mean number of words placed in crossword puzzle.....14.2

3. Mean Team Score.....14.2

Private Failure Performance Norms

PERFORMANCE NORMS (n = 75 Teams)

Five Letters (Average Difficulty)

Job #26

1. LINE-MEN
 - a. Anagrams to solve.....20
 - b. Mean number of anagrams solved:
 - Line-man #1.....11.4
 - Line-man #3.....11.2
2. STAFF-MEN
 - a. Mean number of words received.....22.6
 - b. Mean number of words placed in crossword puzzle.....20.2
3. MEAN TEAM SCORE.....20.2

Public Conditions Job Self-Report

LINE-MAN #3

Name _____

Subject No. _____

Confidential Job Self-Report

This report is confidential and will be read only by the researchers. It will NOT be seen by other Line-men or Staff-men on your team. Please give as accurate an account as possible of your feelings concerning the last job, by carefully answering the following questions. Circle an appropriate response below each question.

1. How would you rate the objective ease or difficulty of the team's last job?

a) very difficult	b) fairly difficult	c) slightly difficult	d) slightly easy	e) fairly easy	f) very easy
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2. How well do you feel the team performed on its last job?

a) very well	b) fairly well	c) slightly well	d) slightly poorly	e) fairly poorly	f) very poorly
-----------------	-------------------	---------------------	-----------------------	---------------------	-------------------

3. How would you rate the objective ease or difficulty of your own task on the last job?

a) very difficult	b) fairly difficult	c) slightly difficult	d) slightly easy	e) fairly easy	f) very easy
----------------------	------------------------	--------------------------	---------------------	-------------------	-----------------

4. Taking account of its objective ease or difficulty, how well do you feel you performed on this last task?

a) very well	b) fairly well	c) slightly well	d) slightly poorly	e) fairly poorly	f) very poorly
-----------------	-------------------	---------------------	-----------------------	---------------------	-------------------

5. How well do you feel each of your teammates performed on the last job?

(Fill out three scales omitting the one which corresponds to yourself)

Lineman 1

- | | | | | | |
|-----------------|-------------------|---------------------|-----------------------|---------------------|-------------------|
| a) very
well | b) fairly
well | c) slightly
well | d) slightly
poorly | e) fairly
poorly | f) very
poorly |
|-----------------|-------------------|---------------------|-----------------------|---------------------|-------------------|

Public Conditions Job Self-Report (Cont.)

Lineman 3

- a) very well b) fairly well c) slightly well d) slightly poorly e) fairly poorly f) very poorly

Staffman 2

- a) very well b) fairly well c) slightly well d) slightly poorly e) fairly poorly f) very poorly

Staffman 5

- a) very well b) fairly well c) slightly well d) slightly poorly e) fairly poorly f) very poorly

6. On the average, how well do you think your teammates will evaluate your own performance on the last job?

- a) very well b) fairly well c) slightly well d) slightly poorly e) fairly poorly f) very poorly

7. Thus far, what impression do you feel your teammates have of your potential contributions to the team?

- a) very favorable b) fairly favorable c) slightly favorable d) slightly unfavorable e) fairly unfavorable f) very unfavorable

Public Conditions Job Self-Report (Cont.)

Think back to how you felt during the time of your last Staff-Report Interview. Describe how you felt by checking the appropriate place on the scale below.

- | | | |
|--------------------|-------|----------------|
| 1. involved | _____ | indifferent |
| 2. relaxed | _____ | tense |
| 3. poised | _____ | awkward |
| 4. not angry | _____ | angry |
| 5. not embarrassed | _____ | embarrassed |
| 6. free | _____ | constrained |
| 7. skillful | _____ | unskillful |
| 8. co-operative | _____ | unco-operative |
| 9. confident | _____ | shaken |
| 10. at ease | _____ | self-conscious |
| 11. approved of | _____ | disapproved of |

Private Conditions Job Self-Report

LINE-MAN #3

Name _____

Subject No. _____

Confidential Practice Job Self-Report

This report is confidential and will be read only by the researchers. It will NOT be seen by other Line-men and Staff-men on your team. Please give us accurate an account as possible of your feelings concerning the practice job, by carefully answering the following questions. Circle the appropriate response below each question.

1. How would you rate the objective ease or difficulty of your task on the last practice job?

a) very difficult	b) fairly difficult	c) slightly difficult	d) slightly easy	e) fairly easy	f) very easy
----------------------	------------------------	--------------------------	---------------------	-------------------	-----------------
2. Taking account of its objective ease or difficulty, how well do you feel you performed on this last practice task?

a) very well	b) fairly well	c) slightly well	d) slightly poorly	e) fairly poorly	f) very poorly
-----------------	-------------------	---------------------	-----------------------	---------------------	-------------------
3. If your teammates were aware of your performance on this last practice job, what impression do you feel they would have of your potential contributions to the team?

a) very favorable	b) fairly favorable	c) slightly favorable	d) slightly unfavorable	e) fairly unfavorable	f) very unfavorable
----------------------	------------------------	--------------------------	----------------------------	--------------------------	------------------------
4. Were you aware of any factors which would help to explain your own particular level of performance on the practice job?
5. How well suited do you think you will be for a line job or for a staff job in the organization?

Private Conditions Job Self-Report (Cont.)

6. From what you have gathered thus far, what abilities do you think the line job and the staff job call for?

7. Generally speaking, apart from the present situation, how important to you are the skills involved in solving anagrams?

8. Do you feel you were putting much effort into your work on the practice job?

9. What level of difficulty would you prefer to work on for the first team job? easy, average, or hard?

10. Thus far, what impression do you feel your teammates actually have of your potential contributions to the team?
 - a) very favorable
 - b) fairly favorable
 - c) slightly favorable
 - d) slightly unfavorable
 - e) fairly unfavorable
 - f) very unfavorable

Private Conditions Job Self-Report (Cont.)

How do you feel at the present time? Describe how you feel by checking the appropriate place on the scales below.

- | | | |
|--------------------|-------|----------------|
| 1. involved | _____ | indifferent |
| 2. relaxed | _____ | tense |
| 3. poised | _____ | awkward |
| 4. not angry | _____ | angry |
| 5. not embarrassed | _____ | embarrassed |
| 6. free | _____ | constrained |
| 7. skillful | _____ | unskillful |
| 8. confident | _____ | shaken |
| 9. at ease | _____ | self-conscious |
| 10. approved of | _____ | disapproved of |

All Conditions Decision-Making Self-Report

LINE-MAN #1

Name _____

Subject no. _____

Confidential Decision-Making Self-Report

This self-report is confidential and will be read only by the researchers. It will NOT be seen by other Staff-men and Line-men on your team. Please give as accurate an account as possible of your views concerning the last decision made by the team. Do this by circling the appropriate response to each of the following questions.

1. How satisfied were you with the decision-making process implemented by the Staff-men on the last decision?

a) very satisfied	b) fairly satisfied	c) slightly satisfied	d) slightly unsatisfied	e) fairly unsatisfied	f) very unsatisfic
----------------------	------------------------	--------------------------	----------------------------	--------------------------	-----------------------

2. In what ways, if any, could it be improved?

3. How satisfied were you with the final decision arrived at by the team?

a) very satisfied	b) fairly satisfied	c) slightly satisfied	d) slightly unsatisfied	e) fairly unsatisfied	f) very unsatisfie
----------------------	------------------------	--------------------------	----------------------------	--------------------------	-----------------------

4. How satisfied do you think the rest of the team was with this final decision?

a) very satisfied	b) fairly satisfied	c) slightly satisfied	d) slightly unsatisfied	e) fairly unsatisfied	f) very unsatisfi
----------------------	------------------------	--------------------------	----------------------------	--------------------------	----------------------

5. How different was your own initial choice from the choice initially favored by the average team member?

a) very different	b) fairly different	c) slightly different	d) rather similar	e) very similar	f) identical
----------------------	------------------------	--------------------------	----------------------	--------------------	--------------

All Conditions Decision-Making Self-Report (Cont.)

6. How different was your initial choice from the choice finally decided on by the team?

- a) very different b) fairly different c) slightly different d) rather similar e) very similar f) identical

7. Did you actually modify your initial choice to bring it into closer agreement with the rest of your team?

a) Yes

b) No

---If Yes, why?

---If No, why not?

8. If the last decision were to be made over again, and the decision-making process were to be altered, which one of the following changes would you most prefer? (check one)

- a) no secret balloting at all, only discussion with the staff
- b) less secret balloting, more discussion with the staff
- c) more secret balloting, less discussion with the staff
- d) only secret balloting until a consensus was reached, minimal discussion with the staff

9. Looking back on your participation with the team thus far, how pleasant do you find working with your team?

- a) very pleasant b) fairly pleasant c) somewhat pleasant d) slightly unpleasant e) fairly unpleasant f) very unpleasant

10. To the best of your recollection, how many anagrams did you solve for the team on your:

a) practice trial? _____

b) practice job? _____

All Conditions Decision-Making Self-Report (Cont.)

Think back to how you felt during the last decision-making period. Describe how you felt by checking the appropriate place on each scale below.

- | | | |
|--------------------|-------|-----------------|
| 1. involved | _____ | indifferent |
| 2. relaxed | _____ | tense |
| 3. poised | _____ | awkward |
| 4. not angry | _____ | angry |
| 5. not embarrassed | _____ | embarrassed |
| 6. free | _____ | constrained |
| 7. confident | _____ | shaken |
| 8. co-operative | _____ | unco-operative |
| 9. at ease | _____ | self-conscious |
| 10. influential | _____ | not influential |
| 11. approved of | _____ | disapproved of |

Supplementary Written Feedback to Subjects

Feedback for Subjects

You have been participating in an experiment studying three topics: 1) failure or success on a task under varying conditions; 2) self-presentation, 3) social influence.

The experiment creates six conditions of failure or success by varying three variables shown in the table below. You were in condition

	Variable 1 Privacy	Variable 2 Anticipated Task difficulty	Variable 3 Actual Performance
1)	Private	Average	Quite Good
2)	Private	Average	Quite Poor
3)	Public	Average	Quite Good
4)	Public	Average	Quite Poor
5)	Public	Easy	Quite Good
6)	Public	Hard	Quite Poor

Your relatively good or relatively poor performance on the last task was not your own doing--it was determined in advance by giving you a very easy or a very hard task. This was done in order to study the effects of task failure or success under the various conditions created by different combinations of Variable 1 and 2. The questions we are studying are the following: does failure on a task lead to different feelings, behavior, and physiological reactions than success? In what condition are the effects of failure most pronounced; when an individual fails privately (Condition 2), when an individual's teammates believe he has failed but he himself knows the task is quite difficult (Condition 6), or when both he and his teammates believe he has failed (Condition 4)? Similar questions are asked about the effects of success. As you know, you were asked a number of questions about your own feelings, observers were coding your behavior, and your physiological reactions were being recorded automatically.

Supplementary Written Feedback to Subjects (Cont.)

We are also interested in the question of how a person reacts when he believes his teammates view him as a good performer or a poor performer. People, of course, behave differently in their efforts to protect or enhance the image others have of them. Generally people are disturbed when others take a negative view of them, particularly if this view is unjustified. Hence, we wish to study more systematically the manner in which people communicate to others that they are not the way others think they are. This was done by observing your reactions when you were interacting with your teammates after your last task performance. In fact, the two members of your team who came to interview you periodically were not really subjects like yourself. They are our assistants. Everything they said or did was standardized so that we could accurately compare the various conditions.

Finally, we are interested in the process of social influence. As you know, society can be viewed as a network of groups. People spend most of their time in one group or another. Any socialized person is susceptible to influence from the groups to which he belongs. If this were not so, society could not operate in an orderly, co-operative fashion. We are interested in studying some of the conditions which make an individual more or less susceptible to influence from a group.

For this reason, in the last decision which the group made, we led you to believe that your preference was very deviant from the rest of the group's. Actually it was not very deviant, but we wanted to see to what extent you were willing to co-operate with your teammates when they made a pretty extreme request. We hypothesize that an individual's willingness to be co-operative depends partly on how he thinks his teammates see him: (do they believe he is a skillful or unskillful teammate), and partly on how he sees himself (does he feel he is a skillful or unskillful teammate).

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