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CLASSICAL PROJECTION: AN ATTEMPT AT EXPERIMENTAL  
DEMONSTRATION

*City University of New York*

PH.D.

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CLASSICAL PROJECTION:  
AN ATTEMPT AT EXPERIMENTAL DEMONSTRATION

by

NANETTE GIUNTA

A dissertation submitted to the Graduate Faculty in  
Clinical Psychology in partial fulfillment of the  
requirements for the degree of Doctor of Philosophy,  
The City University of New York.

1980

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This manuscript has been read and accepted for the Graduate Faculty in Clinical Psychology in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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## Abstract

The psychoanalytic literature utilizes the term "projection" to designate a specific psychological defense mechanism, described as the attribution to another person of one's own unconscious unacceptable wishes. To avoid confusion of this process with others also denoted "projection" or "projective", I will call it "classical projection". There is almost no empirical support for the existence of classical projection beyond the clinician's inference based on ill-defined contextual evidence. All but one study in the literature purporting to demonstrate classical projection adduce results which are either artifactual or which can be explained in terms of other processes. The present study is based on the only instance of previous research providing some support for the existence of classical projection. Here the attempt was to provide further confirming results, to validate a new homosexual defensiveness scale, and to explore the use of the individual subject as his own control for more in-depth study of the factors associated with the presence or absence of classical projection in a given case. The subjects used were heterosexual male college students. They were tested individually and paid for their participation. Each subject first completed a Defensiveness Scale. He then rated himself on usual level and direction of sexual drive, inhibitedness,

and attitude toward pornography. He next rated each of five photographs of male target figures on a scale similar to the one for himself. He then viewed a portfolio of pornographic photographs depicting homosexual acts. Then he rated a second set of targets. The order of presentation of the two sets of targets was switched for half the subjects. Finally, he rated himself on his reactions to the pornographic material and was asked to volunteer comments. The main analysis of the data consisted of a comparison of 30 subjects' ratings of the targets before and after viewing the pornography in relation to their ratings of themselves on the Self and Arousal Scales and to their Defensiveness Scale scores. The results indicated that the subjects as a group denied homosexual tendencies as part of their self image, denied homosexual feelings in response to the pornography, and attributed significantly more homosexual feelings than before to the targets after viewing the pornographic pictures; thus supporting the main hypothesis. There was no direct correlation, however, between Defensiveness Scale scores and change in ratings between the pre and post viewing conditions. The indications were that the sample was heavily skewed in the defensive direction. Nor was there a significant correlation between ratings of dislike for and of homosexuality of the targets. There was evidence suggesting that the relationship between

defensiveness and target ratings was curvilinear. After the elimination of four uncooperative subjects, 26 were divided into three groups, low, middle, and high defensive. Since the middle group appeared heterogeneous, the main comparisons were between the two extreme groups. The results for the two groups indicated that the low defensive subjects admitted some homosexual drive as part of self image and homosexual feelings in response to the pornography while the high group denied these, providing support for attributive projection, the attribution to others of accepted characteristics of one's own, in low defensive subjects and for classical projection in high defensive subjects.

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## CHAPTER I

## Introduction

We do not see things as they are,  
we see things as we are.

Talmud

The term "projection" has taken on many meanings in the literature of psychology and psychoanalysis. It has come to refer to varied classes of phenomena--behavioral, cognitive, and perceptual. Freud used the term to refer to the mechanism of paranoid projection, on one hand, and to the normal process of externalization, on the other (1911, 1959 edition). He also used it to describe what he called projected jealousy, including those cases in which the jealous partner had himself been in fact unfaithful, and therefore could not be unconscious of his own unfaithfulness, thus extending the term's application to what appears to be a form of rationalization, my spouse is no better than I (1922, 1959 edition). The term has been applied to behaviors such as scapegoating, self-righteous moral condemnation of others, and sociopolitical censorship (Zilboorg, 1947), to perceptions involving sensitization to particular aspects of others and of the environment (Bellak, 1944; Imbasciati, 1967) and to hallucinations (Weiss, 1964).

Does labeling these diverse phenomena as "projection"

imply a common underlying psychological process, a common adaptive or defensive function, or only a common effect produced by different processes? All uses of the word point to the influence of the state of an individual's inner mental world on his experience of his outer world. It is unknown to what extent phenomena labeled projective, and the various forms of defensive projection in particular, can be accounted for by the same underlying psychological process.

One such phenomenon, called "classical projection" by Murstein (1957), refers to the attribution of one's own disavowed wishes or impulses to another person. This definition is based on Freud's major usage of the term "projection", and seems to be his underlying point of departure for this area of exploration. The concept of classical projection has a definition specific enough to permit experimental study. It has also been that most commonly referred to by the term "projection" in the psychoanalytic literature (Schafer, 1954; Shapiro, 1965). It is central to one of the empirically testable functional relationships, rare in Freudian or general psychological theory, that of the relationship between paranoia and homosexual motivation. An exploration of the phenomenon and of the concept of classical projection could contribute to an increased understanding of projective processes, and to the

general theory of the defenses and of cognitive style.

The classical Freudian notion of projection is neither complete as a phenomenological description nor as a psychological concept. No one, including Freud, has specified the condition under which projection necessarily should occur. Neither has an introspective, phenomenological description of the experience been made, probably since it is considered an eminently unconscious process. In the same way that conscious experience is paralleled by unconscious structures, so too it can be argued that unconscious processes such as projection are paralleled by a particular chain or configuration of experiences accessible to consciousness. Köhler (1938, 1966 edition) points out that a full exploration of phenomenological concomitants is essential as a heuristic in the search for theoretical explanations that go beyond phenomenological experience; otherwise, our theories will be unfaithful to the reality which they are meant to explain and to which they ultimately refer, our own precepts.

A psychological theory of classical projection would have to specify the necessary and sufficient circumstances under which it must occur. Psychodynamic understanding does not do this. Psychodynamic understanding is description based on observations of a person's behavior. The psychodynamic concept of projection only names a postulated link

between a person's attitude toward others and his attitude toward himself. It is based on contextual evidence, such as a contradiction between the person's professed beliefs and his actual sentiments or behavior, or on the judgment by the observer that his emotional reaction to a given person or event is exaggerated, calling forth in the observer the immediately experienced sense that the subject is betraying intentions opposite to those avowed.

A scientific psychology of the process of classical projection would supplement psychodynamic understanding by careful phenomenological analysis and an explicit specification of the variables and the conditions under which it would be predicted to occur. It would validate clinical intuition.

#### Review of Research on Classical Projection

An attempt to demonstrate classical projection experimentally faces numerous pitfalls. Projection as a psychological term refers to a variety of phenomena which are often methodologically confounded in research claiming to deal with the specific concept of classical projection. While this state of affairs is due in part to an unfaithful rendering into an experimental paradigm of the concept, no theoretician, beginning with Freud, has specified the conditions sufficient for classical projection to occur. Freud did specify certain necessary conditions, arousal of a

sufficiently reprehensible motive, repression of the motive, and the presence of a suitable target for its projection. While many of the experimental studies do not even meet them, there is little theoretical indication that classical projection must always occur under these conditions rather than some other defense mechanism.

An additional methodological difficulty is that repression or defensiveness as a component process of classical projection is exceedingly difficult to demonstrate. The validation of a suitable repression or defensiveness measure therefore must become a concomitant aim of any study of classical projection.

It is not only difficult to design such an experiment in conformity to scientific values, it is also, as James Halpern (1974) has pointed out, a problem to keep it in line with ethical values. There are instances in the literature of manipulation of subjects' self images and motivation by persuasion and deception. It might be noted that such unethical procedures turn out also to be poor scientific practice, unfaithful to the concept they are intended to test.

David Holmes (1964) and Halpern (1974) have comprehensively reviewed the literature covering various types of projection and have concluded that there was no experimental evidence for classical projection though there was for the

other types of projection described in the research literature. These are attributive projection, the attribution to others of avowed characteristics of one's own, complementary projection, the attribution to others of attitudes which appear to account for one's own, contrast formation, the exaggeration of others' characteristics in a direction opposite to one's own. The following is a review of the experimental literature including only those studies which claim to examine classical projection, though they do not all use this term.

The research literature on classical projection falls into two broad methodological categories. In the first are paper-and-pencil personality trait studies where subjects are asked to rate themselves and certain others on a trait scale and then comparisons among ratings are made. There is no experimental manipulation of subjects' self-perceptions or motivational state. The second kind of study, also involving rating scales, attempts to experimentally manipulate the subjects to produce before/after effects constituting the measure of projection.

The first published experimental study of classical projection and the prototype for the first methodological category is by Robert Sears (1936). Since Sears published his study it had for years been routinely cited in the literature as an effective demonstration of classical

projection. Milton Rokeach (1945) and Bernard Murstein (1957) criticized it. Nearly 30 years later, apparently because it was still considered authoritative, William Wells and Rachel Goldstein (1964) found it necessary to publish a replication and critique of it.

Sears set about to demonstrate the hypothesis that "any persistently motivated habit or attitude may be projected if it is sufficiently reprehensible to be refused recognition by its possessor (p. 152, italics Sears')." As trait names representing habits or attitudes likely to go unrecognized due to their reprehensibility, Sears chose the "anal" triad of stinginess, obstinacy, and disorderliness. His validation of the reprehensibility of these traits consisted of having men from one of his college classes rate 31 "obnoxious" non-sexual character traits on a seven-point scale, from "neutral" to "very offensive". The anal triad rated tenth, eleventh, and twelfth in order of offensiveness, from most to least offensive, having received average ratings of 4.50, 4.03, and 4.28 respectively. Thus these traits were only seen as moderately obnoxious; this puts into question their susceptibility to projection as Sears defines it.

Sears then had male members of college fraternities rate fellow members and themselves on each of these traits and on a control trait, "bashfulness", using a seven-point

scale.

Contrary to what Sears assumed, his scales do not represent a range from neutral to very offensive, but a spread between two negative extremes with the more neutral areas in the middle. For example, in the case of "disorderliness", a score of 1 is described as "painfully neat, perfect order" and a score of 7 is "no attempt at order".

Wells and Goldstein (1964) point out:

It seems hard to justify this classification.

The theory the experiment was designed to test requires that the person doing the projecting actually possess the opprobrious trait, not some mild degree of its desirable opposite. (p. 175)

In spite of the inappropriateness of the traits chosen and of the lack of face validity of the rating scales, Sears achieves positive results. This is achieved by a spurious measuring technique, not at first apparent in his report of the procedure. He defines the degree of a subject's possession of a reprehensible trait as the average of the ratings assigned to him by the other members of his fraternity, i.e., by subjects' reputation. He first defines a man's possession of insight regarding the trait as his rating of himself as being in the same half of the distribution as others rated him. According to his hypothesis the "noninsightful" group should attribute higher reprehensible

trait ratings to others than should the "insightful" group, where both groups have received above-average ratings on one or more of the reprehensible traits. Sears first seems to be proposing independent measures for insight and projection. However, he then continues to explicate his measure of "insight" in the following way:

Thus, a subject placed above the average for the group by his associates' ratings on him was said to possess insight if he rated himself above the average he assigned to the group in his own ratings; he lacked insight, however, if he placed himself below the average rating he assigned to the group. (p. 155)

This confounds lack of insight with projection. Lack of insight has itself been defined as projection, so that the results are artifactual.

Wells and Goldstein demonstrated this by replicating Sears' procedure and then calculating the results in two ways, the first, actually used by Sears, and the second, that initially indicated but not followed by him. In the former case, these authors replicate Sears' results, in the latter, they negate them.

Wells and Goldstein also attempted a new classification of the data, dropping all subjects who were rated toward the middle of the scale, where the scale was so oriented

that the higher end represented unfavorability. They state that this "all but demolished" the group of subjects 'having' the opprobrious traits according to their peers' ratings of them, such that there could be no "meaningful analysis".

Thus Wells and Goldstein are left with only two groups of subjects on which to base results. These were subjects who, according to their peers' opinion, possess the desirable traits, and who were either insightful or noninsightful in this regard. The authors found that the noninsightful subjects "regularly, and in a few cases significantly" rated their peers as closer to the opprobrious end of the scale than did the insightful subjects; again, all subjects fell in the lower-to-middle range. This, the authors state, reverses Sears' findings. According to Sears' hypothesis, noninsightful subjects rated more favorably on a trait see others more favorably than they see themselves on that trait. This he calls "contrast formation". Yet, according to Wells and Goldstein, subjects who underestimated their favorability also underestimated others' favorability relative to subjects who did not so underestimate themselves. On this basis they conclude:

If 'projection' and 'contrast formation' are names for ways humans generally behave, confirming evidence should not perish so easily. (p. 176)

Thus, although these authors have themselves observed

that fellow fraternity members are unlikely to rate each other unfavorably, and that, indeed, no meaningful group could be constituted of subjects who either had the opprobrious trait in question or attributed it in any significant degree to their peers, making such a study unsuitable as a test of classical projection, they nevertheless conclude that projection is a phenomenon of questionable generality since it is not manifested under conditions in which it cannot be expected to occur.

Wells and Goldstein entirely overlook the observation that their re-analysis may provide evidence for a different type of projection, appropriate to their experimental conditions, attributive projection. Had Sears examined his own concept more closely, he might have hesitated in predicting that a noninsightful subject must always attribute to others what he fails to see in himself. Thus, a person who underestimates his own favorability on a certain trait cannot necessarily, on the basis of Sears' own hypothesis, be expected to "repress" his favorable characteristic and project it onto others. He may simply be using a different standard for both himself and others than others are using for him.

Had these studies been carried out on a more heterogeneous sample, not a social ingroup, had the traits selected been more appropriate and the measuring scale more

valid, there would still be another invalidating factor for such an experimental paradigm. Scapegoating, which is often considered to be the social psychological equivalent of classical projection, could be operating. It could reverse any findings based on a reputation/attribution discrepancy measure of projection. If there is a small core of individuals in the group constituting a scapegoat for the others regarding a particular trait, this core would constitute the "projectors" while none of the others would appear to be projecting; the combined measure for the whole group might not reach significance. The measure based on group averages would not only be unrepresentative of the dynamics of the individuals, but also of the dynamics of the group.

Milton Rokeach (1945) attempted to study the role of self-esteem on women's perceptions of physical beauty in themselves and in other women. While he was the first to publish a criticism of Sears' methodology, he reproduces Sears' errors in his own research.

As in Sears' study, the designated content for projection is the degree to which a particular trait, rather than a motivational state, is present. Subjects rated themselves and each other in each other's presence, having to stand up by turns and be rated by the others in the classroom. Neither Sears nor Rokeach, nor Wells

and Goldstein in their replication of Sears' study, found subjects who rated either themselves or other subjects very unfavorably.

One condition for classical projection, possession and attribution to others of a reprehensible trait, is thus absent in these studies. This makes the presence of another condition, repression, questionable also, as the traits designated are not taboo in nature, and because subjects were directly confronted with the task of comparing themselves to others. Mechanisms of social perception such as assimilation, rating similar others as even more like oneself, and contrast, rating dissimilar others as even less like oneself, may play the dominant role in such situations. Thus, subjects were provided with objectively presented yardsticks for comparisons, the numerical scales. It is possible that this induced more rationalized responding, masking any classical projection.

While Rokeach suggests that Sears' findings may be spurious, he nevertheless proceeds to refine Sears' measure of insightfulness without altering the very aspect of it leading to artifactual results. He defines his measure of insight as follows:

To overcome the limitations mentioned above...

[that the results obtained by Sears' method could be spurious]..., the writer attempted

to devise a quantitative measure of insight. It was reasoned that if a subject received a beauty score of, say, 2.5 above the average, then she should be considered to have perfect insight only if she rated herself 2.5 above the average which she attributed to others...

Rokeach obtained a more refined measure taking into account the direction and degree of insight, yet confounded it with projection just as Sears did, as a comparison between the subject's self-rating and her rating of others.

In addition to this source of confounding, D. T. Campbell, N. Miller, J. Lubetsky, and E. O'Connell (1964) point out another. Campbell et al. assume, based on the results of a similar study, that the rating a subject gives to others is a simple, direct function of his self-rating, and that therefore Rokeach's measure spuriously transforms this function into an inverse one. That is, if the regression equation best predicting attribution ( $B_{A.R.}$ ) based on self-rating ( $B_{S.R.}$ ) is  $Y=X$ , then if, as in Rokeach, self-rating is defined, not as  $Y$ , but as  $X-Y$ , i.e., as  $B_{S.R.} - B_{A.R.}$ , then the function becomes an inverse one; the higher the self-rating, the lower the attribution.

The studies so far discussed demonstrate five issues which must be considered in attempting to test the concept of classical projection: (a) selection of an appropriate

target for projection; (b) selection of an appropriate wish or motivation as content for projection; (c) construction of a valid scale for assessing the presence of the given motivation; (d) construction of a valid measure of insightfulness, or of its converse, defensiveness; (e) controlling for conditions which might mask or fail to activate the process of classical projection.

Herbert Zimmer (1955) conducted a study of classical projection which, although a variant of the trait-attribution studies, attempts to specify susceptible types of motivation and an appropriate target for projection. He hypothesized that subjects would project acceptable characteristics onto disliked individuals. In addition, he predicted that traits about which a person is conflicted would be projected more strongly than nonconflictual traits. Thus he took into account the nature of the target of projection in relation to the type of "internalized demands", that is, notions a person holds of what he should and should not be, and the existence of a dynamic, a conflict, both variables ignored by previous researchers.

As subjects, Zimmer used 26 male college students and 26 male neuropsychiatric patients. His aim was to test the generality of projection over a wide range of individual differences. Thus he measured interindividual differences in tendency to project, not as a global trait in itself, but

rather, as a function of conditions within individuals which would favor projection. He had his subjects rate themselves on 25 trait adjectives on a seven-point scale. They then rated three photographs of strangers on the same scale. Conflict on a trait was measured by the latency of response to the trait as a stimulus word in a word association test and recall of the trait on a word reproduction test. Zimmer defined projection as the difference in rating scale points between liked and disliked photographs, scored plus if in the predicted direction and minus if in a direction opposite to that predicted. A mean projection score was obtained for each subject based on the sum of the differences.

Results are cited as all in the predicted direction, a few reaching significance. Any number of processes may have contributed to the results. There is no comparison made between self-rating and ratings of the photographs, thus no indication of the status of the insight variable, thus no possibility of distinguishing the effects of classical from those of attributive projection. The measure of conflict rests on a questionable assumption, that latency of response or difficulty in recall indicates emotional conflict. There is no reason to conclude that projection of any kind is operating rather than the processes described by cognitive attribution theory, such as halo

effect, where liked individuals are given likable traits and disliked individuals given dislikable traits.

In an attempt to pit classical projection and complementary projection against each other as competing hypotheses, Campbell et al. (1964) conducted a study following the same basic procedure as Sears. They used 236 women and 214 men from 19 college dormitory and fraternity groups and had them rate themselves, the other members of their group, and photographs of strangers on 27 general unfavorable traits on a nine-point scale. Similarity projection, their term for classical projection, was measured by the correlation between a subject's reputation and his peer attributions.

The authors did not take into account possible joint action of both classical and complementary projection nor conditions which also favored the occurrence of attributive projection. The authors state: "To facilitate the use of a wide range of scale values the Ss were asked to rate in terms of the norms of their own living group, rather than in terms of the norms of the population as a whole (p. 11)." Also, the authors themselves note that ratings were obtained only from those members who had some familiarity with the others. No ratings were obtained in those cases where raters knew others only by sight, i.e., where the target was ambiguous. These conditions, rather than constituting

a general situation in which any of a variety of projective processes might theoretically predominate, specifically favor the occurrence of attributive projection.

In addition, in order to control for confounding where the complementary and similarity projection hypotheses would predict the same outcome, scores ascribed to others by each rater were standardized around mean unfavorableness attributed to others. The aim was to measure each subject's greater tendency to ascribed to others certain unfavorable traits rather than others. If there were any joint action of complementary and classical projection at all or if both were acting differentially by trait their effects would be completely obscured in this way, despite the authors' attempt to compensate for the expected small effects by using large numbers of subjects.

In effect, the results support attributive projection as defined by the correlation between self-description and peer attribution. Campbell et al. state, however, "These highly significant values are often called assimilative projection...and are not to be confused with the similarity projection under investigation in the present study (p. 15)." The authors do not define their use of the term "assimilative projection". However, it has been used in the literature (Murstein & Pryer, 1959; Holmes, 1968) synonymously with attributive projection. Campbell et al. apparently

look upon attributive projection as an unimportant correlation between self-description and attributions which confounded both Sears' and Rokeach's findings.

Even though their study does not take into account a relevant variable such as the nature of the target, the authors conclude that "psychology perhaps should restrict the generality of its concept of projection so that it does not apply to a normal person's perception of others in general (p. 22)." One wonders if there is any psychological process which is active and produces isolable results under all conditions. It is like concluding that eyesight is not a general phenomenon because subjects cannot see in the dark.

Stanley Blumberg and Brendan Maher (1965) transfer the reputation/trait attribution paradigm established by Sears to a different kind of subject sample, one in which projection should be more manifest, hospitalized psychiatric patients. Their hypotheses are: (a) hospitalized psychiatric patients are likely to show projection; (b) projection should be prominent in patients with paranoid delusions; (c) projection should be more evident in the perception of photographs of strangers than of known persons; (d) projection "involves the process of seeking the correlate for one's own trait rather than the simple attribution of one's trait to another person (p. 312)," i.e., complementary,

rather than classical, projection occurs.

Blumberg and Maher's subjects were 33 male in-patients diagnosed psychotic, including 16 paranoid schizophrenics in "good reality contact". The subjects rated themselves, other people they knew whose relationship to them is not specified by the authors, and photographs of strangers on a 40-trait adjective checklist evenly divided as to desirability and undesirability. Hospital aides supplied the reputation measures of subjects' personalities.

Among all the measures only one difference between the paranoid patients reached significance, which could be expected by chance. When subjects were grouped by reputation, only six of the 114 group differences in reputation/attribution correlations were significant, also accounted for by chance. In addition, none of the significant differences corresponded to classical projection. For example, the reputedly anxious patients saw the photographs as more hostile than did the unanxious group; not as more anxious.

Many more factors could have contributed to the results than the incorrectness of the authors' hypotheses, such as unreliability of the ratings, the gross inconsistencies found in them, and the difficulty subjects had in completing the tasks, manifested by their slowness and spontaneous comments, factors noted by the authors. In addition, the design suffers faults in common with Sears' study. There

was no attempt to manipulate subjects' motivational arousal and the reputation ratings under hospital conditions by staff cannot be assumed valid.

The authors conclude that their hypotheses may have been too global. Projection may not be everpresent and omnipresent among paranoid patients; it may manifest itself only for specific traits and under certain conditions.

Despite the procedural flaws of their study, Blumberg and Maher attempted to use subjects relevant to a test of the role of projection in paranoia, in whom, according to psychoanalytic theory, projection should be more plainly evident than in other populations. Their use of paranoid schizophrenics, rather than subjects exhibiting paranoia or paranoid state in the absence of schizophrenic thought disorder, may have in itself been a source of the inconsistencies found in the staff's ratings of subjects and of judgmental processes that may have confounded any results due to classical or complementary projection.

As a last example of the type of approach to the demonstration of classical projection based on comparisons of subjects' ratings of themselves and others in the absence of explicit experimental manipulation of motivation is a study by Ann Searle (1976).

Her subjects were 82 boys and 55 girls in the 16 to 17 year old age range. The subjects rated themselves on

seven seven-point rating scales representing various aspects of aggressiveness randomly mixed with 11 other scales. Subjects' scores on the Rosenzweig Picture Frustration Study were designated as the objective measure of their actual aggressiveness.

After viewing either of two commercial movies depicting violence and intrigue, subjects were asked to rate a number of the movie characters on aggressiveness. Although certain characters tended to be rated as more aggressive than others across subject groups, Searle found that the high-aggressive, low-self-rating subjects rated all the aggressive characters--except James Bond--as significantly more aggressive than did the low-aggressive, low-self-rating subjects. For one of the films, high-aggressive, low-self-rating subjects also rated the aggressive characters as significantly more aggressive than did the high-aggressive, high-self-rating group. None of Searle's 137 subjects were low aggressive but high-self-rating on aggressiveness.

Searle provides arguments against three alternative explanations to that of classical projection, as follows: (a) contrast formation, the tendency to rate others in contrast to oneself; (b) the argument that differences in the ratings of the film characters could have been due to actual differences in aggressiveness between high and low-

self-rating subjects; (c) that the differences were due to consistency/inconsistency of the groups per se, i.e., high-aggressive, low-self-rating subjects are being inconsistent versus high-aggressive high-self-rating and low-aggressive, low-self-rating subjects, whose self concepts are consistent with their actual personality.

The only way to test the third argument, contends Searle, if it is proposed that it is incongruent with the classical projection hypothesis, which is itself an inconsistency hypothesis, would be to verify that the ratings of low-aggressive, high-self-rating subjects are high ones. Searle then points out that none of her subjects fits into such a group, suggesting perhaps that no such group might ever occur, making the third argument meaningless.

As for the contention that she may not have been tapping repressed, but rather socially disavowed, aggressiveness, Searle argues that the difference between suppression of communication out of concern for social desirability and repression is merely one of degree.

There is one apparent flaw in her design. Her measure of actual aggressiveness, the Rosenzweig Picture Frustration Study, is itself a projective measure. In effect, rather than having demonstrated classical projection, it could be argued, Searle has demonstrated comparable form

reliability for the Rosenzweig. In other words, her study has demonstrated that children who project a greater degree of aggressiveness on the Rosenzweig will also project a greater degree of aggressiveness onto aggressive film characters--if these subjects see themselves as low on aggressiveness. If responses to the Rosenzweig and ratings of film characters derive from the same processes tapped by all projective tests, to that degree high aggressive subjects, as determined by their responses to the Rosenzweig, should also rate film characters as more aggressive than should low aggressive subjects, regardless of whether the high aggressive subjects rate themselves low or high on aggressiveness. It turns out that among all of Searle's comparison tables there is none which compares the film ratings of all high aggressive subjects to the low aggressive group. An informal comparison indicates that James Bond is rated lowest on aggressiveness, it appears significantly, by the high-aggressive high-self-rating subjects. While these subjects rate seven out of 12 film characters higher on aggressiveness than do the low aggressive subjects, the differences in this direction do not appear significant. This consideration suggests that the Rosenzweig is indeed tapping more than projective tendencies and may be useful in studies of projection of aggressive motivation. It is an improvement over reputation scores as a measure of

subjects' actual characteristics.

No matter how appropriate the choice of subjects, target for projection, or trait to be measured, the validity of the use of reputation as a measure of a person's possession of a trait and of the discrepancy between self-rating and reputation as a measure of insight is questionable. Furthermore, traits are not equivalent to aroused motives, which, as Halpern points out, are more relevant to the concept of classical projection. Motivation, unlike statically defined traits, can be manipulated, making reputation measures unnecessary. The following is a review of the research that involves experimental manipulation of subjects' motivational state.

Leopold Bellak (1944) presented college students with TAT cards, divided into two sets, A and B, reversing the order of presentation for half the subjects. The first set was administered without any form of evaluative comment by the tester. However, during presentation of the remaining five cards, the tester criticized the subject for his performance, e.g., "These stories are about the worst I ever heard...There are still no ideas in it, no life, nothing... (p. 356)."

Bellak found that subjects gave stories involving more aggression, as measured by a count of the aggressive words and by overall judged aggressiveness, during the criticism,

but that the difference was not significant for set A of the TAT cards. On this basis Bellak claims the "obtained data seem to permit the conclusion that the existence of projection as defined [i.e., as "the ascription of feelings and qualities of one's own to other people as a defensive process, and without being aware of these phenomena (p. 354)"] may be considered fact (p. 363)." However, there is no evidence indicating that the aggression was unconscious for the subjects, nor that the aggressiveness of content was not determined by the desire to produce a livelier story combined with consciously displaced hostility toward the tester.

Bernard Murstein (1956) conducted a study of classical projection using college fraternity members divided into four groups along the dimensions of friendly/hostile and insightful/noninsightful, based on self-rankings and rankings by peers. As an improvement over Sears' technique, Murstein overcame the reluctance of subjects to rate themselves or each other as hostile by asking them to rate on a scale from most to least friendly. Each subject was then given the Rorschach individually, asked to give three responses to each card which were then scored without inquiry for "content, animation, and description". After the cards were administered, half of the subjects across groups received interpretations from the examiner that they were

warm, friendly, and mature persons and half the subjects were told by the examiner that they were cold, hostile, uncooperative person (the threat condition). All subjects were then asked to rate the examiner.

Under the conditions of ego threat, Murstein found that the only projection scores reaching significance were those for the friendly insightful and hostile noninsightful groups. Thus projection of hostility was a direct function of the self concept of friendliness, regardless of insight. From this Murstein concludes that the classical projection hypothesis is not confirmed, since it should predict that only the hostile noninsightful group would project. Holmes (1968) suggests that the results are more consistent with attributive projection. Halpern (1974) also suggests that the results are ambiguous because of the attempt to induce hostility by telling subjects they are hostile. In other words, the conditions for classical projection, arousal of hostility in this case, and attributive projection, fostering the self-attribution of hostility, are confounded. Thus the classical projection hypothesis is not disconfirmed by Murstein's study as the conditions may not have been appropriate.

Arnold Markowitz and LeRoy Ford (1967) attempted to test the hypothesis that anxious subjects high in defensive denial of unacceptable self-attributes would classically

project more anxiety onto an outgroup target figure than to an ingroup target figure while anxious low defensive subjects would do the opposite, attributively projecting more anxiety onto an ingroup target with whom they were supposedly consciously identified, and less onto the outgroup target.

In their 2x2x2 factorial design with 128 male college students as subjects, Markowitz and Ford took into account high defensiveness versus low defensiveness of subjects as measured by the Ford Social Desirability Scale, high anxiety-versus low anxiety-arousing conditions, and nature of the target.

The major finding was that high defensive subjects under low anxiety conditions projected less positive affect to the dissimilar target than to the similar one while low defensive subjects projected less positive affect to the similar target than to the dissimilar one. They found no significant correlation between defensiveness and projection of anxiety as measured by the Anxiety Scale, yet conclude nevertheless that their Positive Affect Scale is an indirect measure of anxiety. They do not mention if there was any correlation between high defensive subjects' self-attributed positive affect and the degree to which they attributed positive affect to others, thus there is no way of examining the validity of their conclusions more

closely.

The similar target was identified as a college student while the dissimilar target was described as a janitor's assistant who had completed only two years of high school. Stereotypically, these two classes of persons are assumed to enjoy very different degrees of contentment with their lot, so that whether or not subjects were projecting their own feelings of anxiety in "indirect" form, i.e., as measured by scores for items on the Positive Affect Scale such as "calm", "happy", and "satisfied", or whether they were "projecting" certain stereotypical attitudes that might or might not be dynamically related to their own anxiety is open to question. In either case, there is no evidence for classical projection.

Markowitz and Ford assumed without explication that there is a relationship between high defensiveness as measured by a social desirability scale and the need to disavow anxiety, and that disavowal to others of anxiety and actual repression of anxiety are the same. Their use of anxiety as if it functioned like a motive is itself problematic. Anxiety is not a motive and there is no such thing as unconscious anxiety in Freudian theory; thus it does not fulfill the criteria for being an unconscious motive susceptible to classical projection.

Ralph Epstein and Reuben Baron (1969) attempted a

study of defensive projection, covering both attributive and classical types. The authors hypothesized that (a) high self-esteem white subjects will project more hostility toward whites than toward blacks when strongly confronted with information indicating their own hostility; (b) high self-esteem subjects will project more than low self-esteem subjects; (c) subjects who deny their own hostility will project more to blacks than to whites.

Epstein and Baron conclude from their results, which are equivocal, that the first two hypotheses are not supported but that the third, denial of possession of an undesirable impulse leads to greater projection to the outgroup, is confirmed. An examination of the authors' procedure reveals that none of the hypotheses, as stated, is confirmed by their study, and that the results are exactly contrary to the first two, suggesting that very different mechanisms from those purportedly examined are at work.

Epstein and Baron's subjects were the 40 highest and 40 lowest scorers on a self-esteem measure administered to 120 female college students. The students' initial self-esteem ratings were confirmed by giving them fraudulent feedback regarding their performance on a variety of projective tests. In a 2x2x2 factorial design the low and high self-esteem groups were first subdivided a second time

according to whether they were presented with a black or a white target. The target in both cases actually consisted of a taped recitation of TAT stories by a female drama student of unidentified race who was "adept at presenting a Negro or white voice" and who referred to her racial identity on the tape. Subjects in the high confrontation condition were given fraudulent readings from a galvanometer indicating "mixed feelings".

The authors' conclusion that there "is no evidence that high esteem persons project more hostility than low esteem persons, or that high esteem interacts with degree of confrontation in determining target of projection (p. 179)" is stated by them to be in contradiction with findings by Bramel (1962, 1963). Epstein and Baron seek to explain this by differences in the type of subjects and induced motive between Bramel's study and their own. Bramel used male subjects and presented them with fraudulent information regarding their supposed homosexuality. Bramel may have been dealing with a far more reprehensible trait for his subjects. In addition, Bramel's target for projection was a designated partner, another male subject.

Contrary to Epstein and Baron's conclusion, there is no evidence for their third hypothesis, i.e., that denied impulses are projected to the outgroup. It is unlikely that subjects in the high confrontation condition were

denying the hostility imputed to them, for they did not project more hostility to the black speaker only, but also ascribed more hostility to themselves than did those in the low confrontation condition. This suggests acceptance of their own hostility. Yet their attribution of hostility to the white speaker was lower in the high confrontation condition than in the low confrontation condition, so that more attributive projection could not explain this, though complementary projection might. On the other hand, subjects attributed less hostility to blacks than to whites in the weak confrontation condition and more to themselves. Attributive projection could explain this data, which is uncommented upon by the authors.

Epstein and Baron's conclusion that their third hypothesis has been supported by their data and that this is in consonance with dissonance theory is incorrect. Indeed, the conditions that would be necessary to confirm their third hypothesis would contradict the conditions necessary for the confirmation of their first hypothesis. In line with dissonance theory, according to Brehm and Cohen (1962) as cited by Epstein and Baron, low confrontation conditions make it easier to deny an impulse and project it to an out-group, yet the writers describe the high confrontation subjects, not the low confrontation ones, as denying their hostility. This interpretation of their third hypothesis

directly contradicts their first hypothesis.

Thus, Epstein and Baron's findings are completely equivocal with respect to dissonance theory, for which the conditions may not have been met at all. The female subjects under high confrontation conditions seemed actually to be induced to believe they felt hostile, where hostility is not as reprehensible a trait as homosexuality, and much more easily induced by suggestion. Complementary projection to an outgroup target could explain the results. That low self-esteem subjects generally projected more hostility than high self-esteem subjects could be a form of naive projection or perhaps what Bowerman (1975) calls comparison projection. Thus high esteem subjects would not need to attribute as much hostility to others as low esteem subjects in order to feel comfortable with their own perceived level of hostility. However, Epstein and Baron have introduced an additional factor which may play a necessary role in classical projection and paranoia which warrants further research, self-esteem.

If one compares the manipulations in both Bramel's and Epstein and Baron's experiments to the situation defined by the concept of classical projection, one finds a discrepancy. In these researchers' studies subjects are dealing with outside information regarding themselves, while classical projection involves the activation of a repressed

motive within the subject. Halpern (1974) has pointed out that this discrepancy constitutes an incorrect translation of the concept of classical projection into experimental procedure.

Halpern (1974) carried out a neat, well-designed study aimed at overcoming many of the failings of previous research on classical projection. He points out that such studies have strayed far from the classical notion of projection, ignoring crucial aspects of this concept, and have therefore produced irrelevant results.

Halpern's research design considers the necessary conditions specified by the psychoanalytic concept of classical projection, the existence of a repressed motive, its unconscious arousal, and the provision of a suitable target. He chose lustfulness as the motive, showed subjects pornographic pictures which were assumed to arouse this motive, administered to them a Sexual Defensiveness Scale as a measure of their tendency to repress, and provided photographs of strangers as targets for their projections.

Halpern's subjects were 206 male and female college students. In a classroom setting he had subjects fill out Sexual Defensiveness and "Self Usually" rating scales. The latter scale included the attributes "lewd", "lecherous", and "lustful". Because many of the subjects said they did not know the meaning of either "lewd" or "lecherous" these

attributes were excluded, so that "lustful" was the single measure of admitted sexual feelings. A number of subjects also either did not complete items on the Sexual Defensiveness Scale or left out ratings on "lustful", reducing the final number of subjects to 188.

After filling out the scales for themselves, subjects rated photographs of strangers on a trait scale including "lustful" and were asked to select the photograph they liked least. Subjects were randomly assigned to either a male or female photograph condition. Then each subject was handed an individual portfolio containing pornographic pictures. Finally, subjects re-rated the least-liked photographs and themselves on the "Self Now Scale".

Halpern found that sex of target and sex of projector were the most important variables influencing projection. Photographs of male strangers were generally rated higher on lustfulness than were photographs of strange females. Also, females rated the photographs of males higher on lustfulness than did male subjects. The author found no evidence for projection in sexually defensive male subjects, although for both male and female subjects who scored low on sexual defensiveness he found that they rated themselves higher on lustfulness after viewing the pornographic pictures whereas they rated the photographs of strangers lower on this motive than did their low defensive controls, who

did not view the pornographic pictures. On the other hand, sexually defensive female subjects did indeed rate the photographs of strangers significantly higher on lustfulness after viewing the pornographic pictures, while their post-viewing Self Now ratings did not differ from their pre-viewing Self Usually ratings.

Halpern attempts to account for lack of effect in the male group by suggesting the males' greater familiarity with pornographic pictures. However, it is questionable whether greater familiarity with such pictures would necessarily decrease their capacity to arouse rather than facilitate it. It may have been, as Halpern also points out, that because of cultural norms, male subjects felt compelled to rate themselves higher on lustfulness on the Self Usually scales. However, this explanation leaves open the question as to why such subjects nevertheless were rated high on the Sexual Defensiveness Scale, validated by Halpern on the basis of its correlation with Self Usually scores. Lustfulness may simply not have been as reprehensible a trait for the males as for the females, as suggested by Halpern's findings that all male subjects as a group tended to have higher Self Usually ratings on lustfulness than did all female subjects as a group. Another explanation could be the possibly greater inhibiting effect on males than on females of group viewing of the pictures.

In sum, Halpern found that high sexually defensive female subjects who had viewed pornographic photographs rated photographs of male strangers as more lustful than did high sexually defensive female controls or low sexually defensive subjects. Halpern assumes that his Sexual Defensiveness Scale is a measure of repression. He also assumes that the high sexually defensive female subjects were unconsciously aroused by the pornographic photographs. It is possible, however, that these subjects rated the photographs in contrast to the way they saw themselves, and that this contrast effect was increased by their viewing of the pornographic pictures because of implicit comparisons with the way others, e.g., males, might react. This could also explain low sexually defensive subjects' lower ratings of strangers. Thus, there is evidence for exaggeration of a perceived motive in another person in a direction opposite to one's own self-concept, but it can only be inferred that this is a defensive process based on an exclusion of an actually possessed motive from the conscious self concept.

The problem confronting all the experimental attempts at demonstration of classical projection discussed including the one I designed is that, while they must assume that classical projection, if it is a real phenomenon, should necessarily occur under specifiable conditions, and

that under specifiable conditions it should also be manifest and not tucked into some other process, the current elaboration of the concept does not define such sufficient conditions. Thus, any failure at demonstration can be attributed to a lack of knowledge or of crudity of the measuring instruments.

Nevertheless, the history of the research on classical projection portrays a gradual progression, by a process of elimination of faulty or inappropriate methods, where one determining variable after another has been identified, if not fully clarified. Thus, first the nature of the motive, then of the target, then of type of subject and of particular arousing conditions, and finally of the interaction of all of these have been identified as crucial.

While it is probable that classical projection is not limited to any particular type of individual, motive, or any particular value of any of the other variables, it is likely that it occurs under particular interactions of all these variables, and it is the specification of a general pattern for interactions which remains elusive. Halpern has succeeded in identifying one possible instance of such a pattern. It seems possible, modifying Halpern's approach, to validate and expand his findings.

One problem still remains practically untackled, and this is how to demonstrate that defensiveness or repression

has actually occurred, that the motive in question is unconsciously present in subjects and has been activated. In my study I have sought some clues to this matter also.

## CHAPTER II

Rationale of the Experimental Investigation

The major purpose of this study was to establish convincing empirical support for the notion of classical projection. The present work is an extension of a long series of such attempts, largely unsuccessful. The design is based on that used by previous authors, especially Halpern's (1974), whose work stands alone in the research literature as the most valid paradigm for the experimental demonstration of classical projection, the one most faithful to the Freudian definition of the phenomenon.

The proposed study is meant to improve upon Halpern's work in two ways, by strengthening the results and by further increasing their validity. For the first purpose, disavowed homosexuality in male subjects served as the motivational condition for projection. Subjects were tested individually in the experimenter's absence in order to avoid possible inhibiting effects of a group situation. Subjects also served as their own controls, reducing the size of the sample needed for statistical purposes, thus allowing for a more intensive study of the individual subject.

For the second purpose, improving the validity of the results, that is, the degree to which they can most reasonably and economically be explained by classical

projection, I sought an improved measure of defensiveness. The validation of a defensiveness scale was a subgoal of this study. Additionally, I was interested not only in overall scores, but also in the pattern of responses on such a scale, to provide clues as to the basis upon which clinicians infer that their patients are classically projecting.

Finally, I intended that the wealth and nature of the data obtained from individual subjects would stimulate ideas for further research on the nature of the process of classical projection.

## CHAPTER III

MethodSubjects

The subjects were 30 undergraduate male students at the City College of New York. Fourteen of them were white American, six black American, three Hispanic American, three non-European non-American, including one black, two white non-American, and two Hispanic non-American.

All but one subject, who was notified of the experiment by the professor of his psychology class, came in response to advertisements posted in the halls of various buildings of the College or in response to direct solicitation. I told them that their participation would take 45 minutes to an hour, for which I would pay them five dollars. I informed subjects that the experiment was my own only if they so inquired.

Procedure

For the experiment I led each subject into an enclosed office bare of all decoration and indicated to him the test materials lying on the desk, a pile of five large envelopes which were numbered according to the sequence in which they were to be opened. I told the subject to open each envelope in sequence, replacing all materials in the envelope before going on to the next.

I told the subject he was free to withdraw from the

experiment at any time and that he would be paid upon finishing the complete task. I requested of the subject that he answer the questionnaires as honestly and spontaneously as possible, emphasizing that his participation was completely anonymous. I simply assigned a number to the subject in my private record by his order of participation in the experiment. I also recorded the subject's race and national background based on my observations of his speech and appearance. The opening instructions, though I did not read them from the text, were close to what follows:

This experiment has to do with attitudes toward sex.

You will remain completely and absolutely anonymous. Should you wish to withdraw from the experiment, you are free to do so at any time.

There are no surprises or tricks in this experiment; you will be prepared for each part by written instructions. You will not be asked to do or answer anything for which you have not been prepared.

I will give you five numbered packets containing the experimental materials. You will remain by yourself throughout the experiment and are to go through the packets by yourself, one by one, in numerical order.

Please remember to put all materials back into their proper packet as soon as you are finished with them.

The experiment should take you about 45 minutes to complete. You are to time yourself--please do not try to go too slowly and cautiously or too fast and hastily.

When you are finished, I will pay you five dollars. Do you have any questions?

I then instructed the subject to record the time begun and the time finished for each section of the experiment in the places indicated in the materials, using a clock I had placed on the desk for this purpose. I then told the subject I would remain in an adjoining area at some distance from the office room during the experiment, then exited, leaving the door closed and the subject alone in the windowless room.

The first envelope that the subject opened contained a face sheet of instructions followed by attached copies of the Defensiveness and Self Scales. A copy of the instructions and the scales is in the appendix.

The Defensiveness Scale, the test of defensiveness regarding homosexuality, consisted of 65 statements to be marked true or false. All statements tapped sexual attitudes. Forty-two dealt with homosexuality and identification

with female sexuality. The statements were worded so that response set would not produce a high or a low score. The statements covered six categories, political attitudes, personal attitudes toward others' sexual practices, personal fantasy content, the subject's sexual orientation, his attitudes toward female sexuality, and identification with female bodily and sexual experience. In the original data analysis the defensiveness score consisted of the total of defensive responses to the 42 items. It was then reduced to an intermediate version of 25 items and finally to an 18-item version.

In the original version, 23 of the items if marked "true" were scored as defensive, 19 if marked "false" were scored as defensive. In the intermediate version, 12 of the items if marked "true" were scored defensive, 12 if marked "false" were scored in the defensive direction. In the final version ten if marked "true" were scored defensive, eight if marked "false" were considered defensive. I did not select items so that the ratio of true to false defensive responses would remain the same in the second and third versions as compared to the first version. That it did so spontaneously, not by my control, attests to the consistency of subjects' responses, high intratest reliability, and built-in correction for response set across all items. The final version of scored items of

the Defensiveness Scale follows. The original version of scored items is in the appendix.

Final Version of Scored Items Related to  
Homosexuality on the Defensiveness Scale

Item #

4	I do not believe that male homosexuals should be allowed to be schoolteachers.	true
5	I believe that female homosexuals should be allowed to be schoolteachers.	false
9	I do not think the law should recognize homosexual marriages.	true
11	I believe that a homosexual couple should be denied the right to adopt a child.	true
17	I would prefer not to have a male homosexual for a friend.	true
20	Personally, I would rather not work with a male homosexual colleague.	true
46	I have sometimes had the fantasy of having sex with a man.	false
48	I have never had the fantasy of having sex with a man.	true
53	I have never wondered what it would be like to see two men having sex with each other.	true
57	I have sometimes wondered how other men	

	masturbate.	false
59	I never have homosexual fantasies.	true
43	I have sometimes wished I could watch a woman masturbate.	false
44	I have sometimes wondered what it would be like to have a woman's body.	false
60	I have sometimes wondered what it is like to be a female prostitute.	false
62	I have never wondered what it would be like to be a female prostitute.	true
64	There are times when I wish I could be made love to without my having to do anything, surrendering myself to my own pleasurable feelings.	false
45	I often have fantasies with sexual content.	false
50	I have never felt sexually attracted to a little girl.	true

The test to measure subjects' usual amount and direction of sexual drive, amount of sexual inhibition, and usual reaction to pornographic pictures, the Self Scale, consisted of seven questions to be rated on a scale of one to seven. A rating of 1 indicated very little, a 4 indicated a moderate amount, a 7, very much of the impulse, affect, or inhibition in question. A copy of the Self Scale is in

the Appendix.

The second envelope that the subject opened contained another face sheet of instructions with five copies of the Other Scale attached to it. It also contained five cards each with a photograph of the target figure pasted on it.

The target figures consisted of two equivalent sets, A and B, of five photographs, all but one in color, of men's faces taken from sex-oriented but not pornographic magazines for either homosexual male or heterosexual female readers. The photographs, measuring an average of 3" x 3" (ranging from 1 1/2" x 1 3/4" to 3 1/2" x 3 3/4") were pasted onto a 5 1/2" x 6 3/4" black mounting board.

The subject rated each target figure on the Other Scale, which was nearly identical to the Self Scale, consisting of the same set of seven questions, now worded to refer to the target, in addition to an eighth question regarding how much the subject disliked the target. This last item was worded to refer to degree of dislike rather than of liking in order to avoid the false implication that the experiment was tapping subjects' homosexual attraction to the target figure.

The third envelope, much larger than the others, contained the pornographic material along with an instruction sheet on which the subject was to record the time, as follows:

## INSTRUCTIONS

In this packet are photographs of men engaged in homosexual relations.

Please do look at these pictures for at least 10 full minutes--do not avoid looking at them. Allow yourself to feel whatever you want to--whether disgust, sexual stimulation, boredom, anxiety, or fascination--whatever comes to you in response to these pictures.

The purpose of this part is to see how looking at such pictures will influence your ratings of men's photographs.

Record the time on the clock now: \_\_\_\_\_

The pornographic pictures consisted of ten color and black and white photographs of male homosexual couples in various sexual poses mounted on black board. Seven of the pictures measured 8" x 11" and were mounted on 11" x 14" board. Two measuring 5" x 7" were also mounted on 11" x 14" board. One photograph measuring 11" x 16 1/2" was mounted on a 13" x 18" background. The pictures portrayed male models either nude or in advanced undress in blatantly sexual poses without revealing their genitals and without any props or instruments such as sadomasochistic paraphernalia. Background scenery was simple, predominantly natural surroundings, i.e., woods, rocks, water, for six of the pictures, cushions or mats in three of the shots, and black backdrop

in one. The poses represented acts which, if played by a man and a woman, would appear to be part of the normative range of male/female sexual practices in New York City. All models were white and appeared to be in the 20 to 35 age range.

The fourth envelope the subject opened contained the same instruction sheet and set of five Other Scales as the second envelope, though now with Set B of five photographs of target figures if the first had been Set A, and vice versa for alternate subjects.

The fifth and final envelope contained an instruction sheet and a copy of the Arousal Scale, consisting of five questions to be rated along the same seven-point scale used for the Self and Other Scales. Copies of these are in the Appendix. The Arousal Scale was designed to tap the subject's reactions to the pornographic pictures.

The subject proceeded at his own pace throughout the experiment, except in the third part, where he was to look through the pornographic pictures for exactly ten minutes. The timing was left entirely to the discretion of the subject himself. When finished, he left the materials in their respective envelopes on the desk, left the room, and was paid. I did not debrief the subject as to the exact nature of the experiment at the time, but did offer my phone number at the College so that interested subjects

could find out all particulars once I had completed running the experiment.

## CHAPTER IV

ResultsMajor Findings

To begin I looked at the results for the 30 subjects as a group, examining the measures directly relating to my expectations about classical projection. I also looked at other measures which I thought were relevant to the relationship among motivational state, self image, and attribution of motivation to others.

I checked to see if one of the necessary conditions for classical projection, existence of an emotionally charged and negatively valued impulse, was present. In other words, was homosexuality a distressing emotional issue for my subjects? Their responses on the Defensiveness Scale confirmed that it was. Looking at the relevant set of five statements (see Table E) reveals that at least two-thirds of the subjects agreed that they would be very bothered or distressed to discover homosexuality in a brother or sister or in themselves. Only six out of the 30 disclaimed that they would feel distressed about discovering they were homosexual or had homosexual feelings. Only three out of the entire group disclaimed all five statements.

After I could reasonably establish that homosexuality was a negatively valued attribute for subjects, I looked

TABLE E

Frequency of emotional loading and negative valuation of  
homosexuality on Defensiveness Scale

(N=30)

<u>DS Item:</u>	<u>Response</u>	<u>#Ss</u>
24- If I were to have a homosexual sister, I would be very bothered by it.	True *****	20
	False *****	10
25- If I were to have a homosexual sister, I would be somewhat bothered by it.	True *****	19
	False *****	11
26- If I were to have a homosexual brother, I would be somewhat distressed by it.	True *****	22
	False *****	8
27- If I were to have a homosexual brother, I would be very distressed by it.	True *****	21
	False *****	9
39- If I were homosexual or discovered that I had strong homosexual feelings, I think I would probably feel distressed about it.	True *****	24
	False *****	6

to see if they also excluded it from their self image, from what they considered characteristic of themselves. This would be a second condition necessary for the occurrence of classical projection.

On the Defensiveness Scale 28 subjects identified themselves as entirely heterosexual. None identified himself as entirely homosexual or as bisexual. Twenty-six disavowed homosexual tendencies and 25 disavowed strong bisexual tendencies (see Table I). I concluded that subjects as a group excluded homosexual impulses from their self image.

The next thing I did was to make certain that the experimental condition constituted for subjects an emotionally charged situation of which homosexual impulses were a part. To do this I examined subjects' scores on the Arousal Scale, written reactions they volunteered, and spontaneous comments subsequent to viewing the pornographic pictures. On the Arousal Scale 18 subjects reported very little or no sexual arousal, rating themselves on the lower extreme of the seven-point scale. Another nine reported less than a moderate amount (see Table S1). At the same time six claimed to be very much disgusted and another eight reported at least moderate disgust. On the Self Scale prior to viewing the pornography, 17 rated themselves in the moderate-to-very-much range on liking for pornography. After viewing

TABLE I

Frequency of Disavowal of homosexual motivation as  
part of self image on the Defensiveness Scale

(N=30)

<u>DS Item</u>	<u>Response</u>	<u>#Ss</u>
36- I am entirely heterosexual.	True *****	28
	False **	2
37- I am entirely homosexual.	True	0
	False *****	30
38- I am bisexual.	True	0
	False *****	30
41- While I am heterosexual, I believe I have strong bisexual tendencies.	True *****	5
	False *****	25
42- While I am not a practicing homosexual, I believe I have homosexual tendencies.	True *****	4
	False *****	26

TABLE S1

Frequency distributions for each item on the Arousal Scale

(N=30)

Item	Very little			Moderate			Very much
	1	2	3	4	5	6	7
AROUSED NOW	17*	4	5	3	1	0	0
HETERO NOW (1 missing score)	4	1	3	4	3	1	13
HOMO NOW	22	6	0	0	1	1	0
DISGUST NOW	9	6	1	6	1	1	6
LIKE PORN NOW	15	6	4	2	2	0	1

\*One of these subjects gave himself a zero on this rating.

the pornography, however, on the Arousal Scale only five subjects placed in this range, while 15 rated themselves on the lower extreme of the scale in liking for the homosexual pictures (see Table S2).

Written reactions were volunteered by 21 subjects. A look at these and at their spontaneous comments shows that they used emotional language to describe their experience, e.g., "mildly arousing (but) rather saddening", "very bored", "very disgusting", "mild shock", "I lost five pounds in there". Two potential subjects withdrew from the experiment when they saw the homosexual pornography. One exclaimed, "This experiment is wild, man!" He said he had not minded answering the Defensiveness Scale but that when he saw the pictures he began to feel as if he were being watched, photographed, and recorded on a secret list. The other subject who withdrew declared, "When I got to Part Three, I quit," quickly exiting.

Now that I had found a reasonable indication that the conditions necessary to potentiate classical projection had been met, a negatively valued impulse, exclusion of the impulse from self image, and a situation of which the impulse is a part, I considered whether an additional condition, necessary for its actual occurrence, had been provided for. This was the availability of a suitable target. Were the photographs of strange men's faces a suitable target?

TABLE S2

Frequency distributions for each item on the Self Scale

(N=29)

Item	Very little		Moderate			Very much	
	1	2	3	4	5	6	7
SEX DRIVE!	0	0	1	2	7	8	11
INHIBIT!	8	4	4	7	3	3	0
HETERO!	2	0	2	2	0	5	18
*HOMO!	25	3	0	1	0	0	0
AROUSE!	3	4	5	5	7	4	1
DISGUST!	14	5	2	6	1	0	1
LIKE PORN!	4	3	5	13	3	1	0

\* Note: Two of the subjects included in the "one's" column of self-ratings on homosexual drive actually made up their own rating of zero, off the 1-7 scale.

The nature of the target is probably the most imprecise part of the concept of classical projection. Freud merely stated without further specification that "(Paranoiacs) do not project into the blue, so to speak, where there is nothing of the sort already. They let themselves be guided by their knowledge, and displace to the unconscious minds of others the attention which they have withdrawn from their own." (1922 Standard Edition, 1955, p. 226)

Because appropriateness of the target is ill-defined, I expected that any potential experimental effects might be inhibited by inappropriate characteristics of the targets which I had chosen. For one thing, subjects had no opportunity to observe the speech, expressive gestures, or actions of living targets as they would in real life. For another, in real life people are free to choose their own targets. This experiment was a direct test of attributions of personality characteristics to faces based on their physiognomy under particular motivational conditions, not to living people with whom subjects interact. The applicability of the results to real life situations can only be inferred.

Zimmer (1953) and Halpern (1974) in their studies defined a suitable target for projection as an unfavorable or disliked other. I felt that this was an insufficient definition.

All my targets were pictures of attractive, well-groomed, youthful-appearing men close in age to the subjects. I had taken the pictures from sex-oriented but not pornographic magazines for men and women. Thus the targets were potential idealized images to be which the subjects might aspire. On the other hand, by virtue of these very characteristics, subjects might also feel envious of the targets or competitive with them. The degree to which the targets could evoke dislike more than like, or contempt more than admiration was therefore ambiguous. I believed that the strong featuredness of the targets, by no means nondescript, combined with their ambiguity would contribute to their suitability as targets.

As for the unfavorability of the targets, I looked at subjects' Other Scale ratings of them prior to viewing the pornography. On the seven-point scale 18 subjects rated the targets in the three-to-seven range on the average, that is, reported at least some dislike of them while 12 rated them in the one-to-two range on the average, or reported little dislike. On the Other Scale in the post condition 27 subjects avowed some dislike, ten did not.

Although the majority did affirm some dislike for the targets, a substantial number of subjects did not. It is possible that some subjects were unwilling to avow dislike of complete strangers. A look at their written reactions

attests to this. Of the 12 subjects who disclaimed dislike of the targets in the pre-condition, three volunteered reactions, which I give here.

I don't know any of these men so I can't judge them. Since I don't know them I can't dislike them.

I didn't particularly like the judgment of the men in the pictures because I felt I had no right to be judging them.

I think that just by looking at pictures a person can(not) judge another about their psychological drives. It seems to me that any conclusions I made were basically on physical appearances only.

None of the subjects who avowed dislike of the targets made such comments.

A fourth of the "no dislike" group initially gave all the targets a rating of four on the pre-condition, then changed it to one. It is unlikely that he did this as a result of having first misinterpreted the scale, since this was the last item, so that he was already familiar with the nature of the scale. Unwillingness to admit dislike appears to be a more plausible explanation.

Because subjects appeared split in their degree of dislike for the targets, and because few rated them as very

much disliked, I was prepared for equivocal results, with the possibility that other processes, such as attributive projection to a liked other might outweigh the expected effects.

I then looked for experimental effects from which I could infer that classical projection had occurred.

To test whether subjects attributed homosexuality to the targets as a function of their exposure to the pornography I compared mean pre-ratings with mean post-ratings of the targets on the Other Scale. Mean homosexual drive (HOMO?) attributed to the targets by subjects after viewing the pornography was higher. This finding was highly reliable ( $t = 4.11$ ,  $S_D = 5.66$  PRE,  $5.30$  POST,  $p < .01$ ) (see Table Y).

Thus, the main experimental effect occurred as predicted. Subjects did attribute more homosexual drive to targets after they themselves were exposed to a situation which provoked in them reactions to homosexuality.

Did the more disliked targets receive higher attributions of homosexuality? To investigate this I compared the Other Scale ratings of how much subjects disliked the targets (DISLIKE?) with how much homosexuality (HOMO?) they attributed to them in the pre and in the post conditions. On the pre condition, HOMO? and DISLIKE? correlated positively, but the correlation was not large or reliable enough

TABLE Y

Comparison of mean Other Scale ratings before exposure to homosexual pornography  
with mean Other Scale ratings after exposure to pornography  
for all 30 subjects as a group.

OS ITEM	OS MEAN		STANDARD DEVIATION		T VALUE	TWO-TAILED PROBABILITY
	PRE	POST	PRE	POST		
1-SEXDRIVE?	24.77	23.67	4.99	6.23	1.42	ns
2-INHIBIT?	16.50	15.50	5.14	4.72	1.21	ns
3-HETERO?	21.30	20.17	6.23	4.68	1.04	ns
4-HOMO?	16.07	20.07	5.66	5.30	-4.11	<.01
5-AROUSE?	22.60	24.20	3.38	4.17	-1.93	.06
6-DISGUST?	12.87	11.50	5.24	4.86	1.34	ns
7-LIKE PRON?	21.13	23.20	5.13	5.06	-2.18	<.05
8-DISLIKE?	15.43	16.13	9.28	8.65	- .67	ns

to be significant as measured by the Spearman rank correlation coefficient ( $r_s = .22$ ,  $p = .12$ ) (see Table Q1 in Appendix B). The Spearman correlation was used since it does not require that the distributions of the populations sampled be normal on these measures, nor that the measurements be interval in nature.

On the post condition the correlation between HOMO? and DISLIKE? was still small and unreliable, though closer to significance than on the pre measure ( $r_s = .28$ ,  $p = .06$ ) (see Table Q2 in Appendix B). On the other hand, a t test of the difference between mean pre and mean post ratings on DISLIKE? revealed no significant difference, so that subjects did not report greater dislike of the targets after viewing the pornography.

The evidence in support of the expectation that the more disliked targets would receive higher ratings of homosexuality was weak and unreliable. There was no confirmation at all of the expectation that targets would be more disliked after subjects viewed homosexual pornography.

To see whether subjects disavowed arousal in themselves after viewing the pornographic pictures, I examined their self ratings on the Arousal Scale (see Table S2). Twenty-nine out of 30 subjects reported only moderate sexual arousal or less. Eighteen reported very little or no arousal, placing themselves on the lower extreme of the scale.

I took these findings as confirmation that subjects as a group were not aroused by the pornography. This was consonant with their self image, as indicated by their ratings on the Self Scale in the pre condition. These subjects who identified themselves as heterosexual admit no increase in homosexual feelings. That unconscious homosexual tendencies were activated can only be inferred.

On looking over the data, I found that subjects gave heterosexual feelings a significantly smaller share in the post condition than they gave usual amount of heterosexual drive in the pre condition. This apparent decrease in heterosexual feelings might be an inverse measure of an increase in unreported homosexual arousal. It might also be the result of a defensive inhibition of overall sexual responsiveness in order to prevent homosexual arousal. These are possibilities to be explored in future research.

Such research could shed light on the nature of repression. It is not known what the exact status of a repressed impulse is. It is assumed to exist in order to explain certain phenomena. Thus I assume that a repressed homosexual impulse existed in those subjects who attributed more homosexuality to the targets after viewing the pornographic pictures. I consider a repressed impulse to have the characteristics of a consciously experienced impulse, force and directionality which effect behavior. Does it

share other characteristics of conscious impulses as well? Is there such a thing as an aroused unconscious impulse? Its status is unclear.

In sum, I found that all subjects identified themselves as heterosexual and disavowed any strong homosexual or bisexual tendencies. They reported a negative valuation of homosexuality with a significant amount of personal disapproval of the practice along with moderately liberal to conservative political views on the matter. They were not aroused by homosexual pornography.

The main experimental effect was an increase of attribution of homosexuality to targets by subjects after they viewed homosexual pornography. For subjects as a group this would seem to support the notion of classical projection both as a descriptive term for the observed set of phenomena and its existence as a psychological process, an understanding of which would explain the effects observed.

#### The Defensiveness Scale

To measure subjects' defensiveness regarding homosexuality I composed a Defensiveness Scale (see Appendix D). It consists of 65 statements to be marked true or false. These statements fall into six categories, political stand on legal rights related to sexual practices (legal), personal reactions to others' sexuality (interpersonal), fantasies, sexual orientation, male attitudes toward female

sexuality and feminine attitudes in males (women), and heterosexual fantasies (sex).

For the purpose of this study, the responses to all statements having to do with homosexuality constituted an independent variable while almost all of the statements to do with heterosexuality were not used as a variable, but as embedders to obscure from the subjects the specific focus on homosexuality.

Responses were given a positive score for defensiveness if they were, for the first four categories respectively, disavowal of permissive political attitudes toward legal rights for homosexuals, negative personal reactions to homosexual practices, disavowal of fantasies with homosexual content, and disavowal of any but entirely heterosexual inclinations. In addition, I suspected that defensiveness regarding homosexuality would be related to disavowal by males of any personal identification with or curiosity about female sexuality and to heterosexual inhibitions. These considerations were addressed by the "women" and "sex" items.

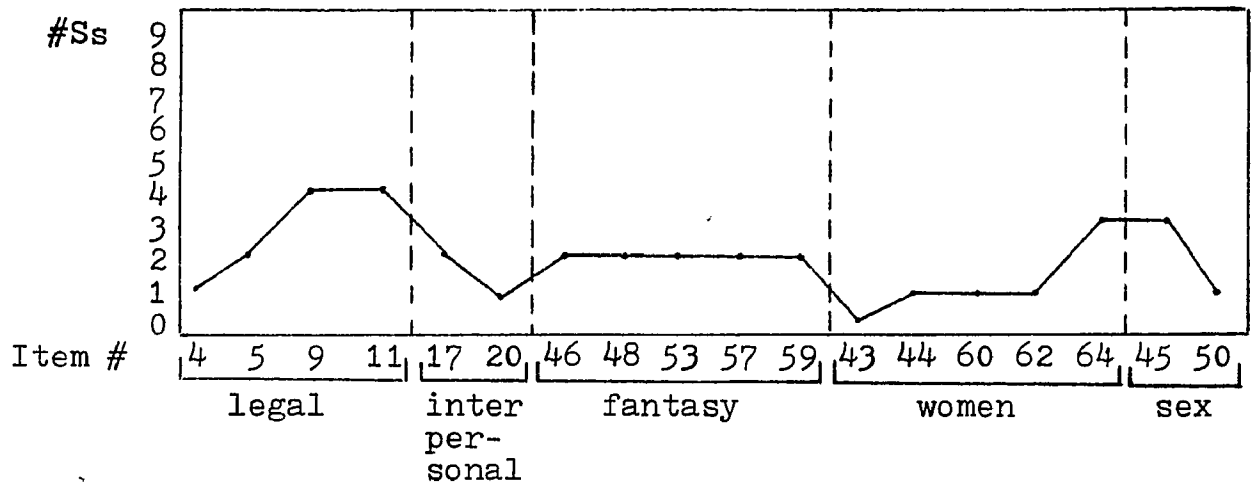
Initially total score on 42 of the items constituted the defensiveness variable. I subsequently reduced the number of items to 25 and then to 18. In the final version, all items obtained a Spearman correlation coefficient above .40 ( $p < .01$ ) with total score.

Eliminated were one out of five legal items, ten out of 12 interpersonal, one out of six fantasy, none of the women items, and three of the five sex items. All orientation items were eliminated, for they simply defined the entire sample as heterosexual. Four of the interpersonal items were also eliminated for lack of variability. They simply reflected the tendency of subjects as a group to acknowledge distress at the idea of homosexuality in their siblings or in themselves. Likewise, the fantasy item eliminated, "I have never felt sexually attracted to a little boy," defined the sample as defensive about non-standard sexual inclinations. The three sex items eliminated also served to define the sample, in this case, as claiming to be heterosexually oriented in fantasy. On the other hand, the retention of two sex items suggests that defensiveness regarding homosexuality correlated strongly with general sexual defensiveness.

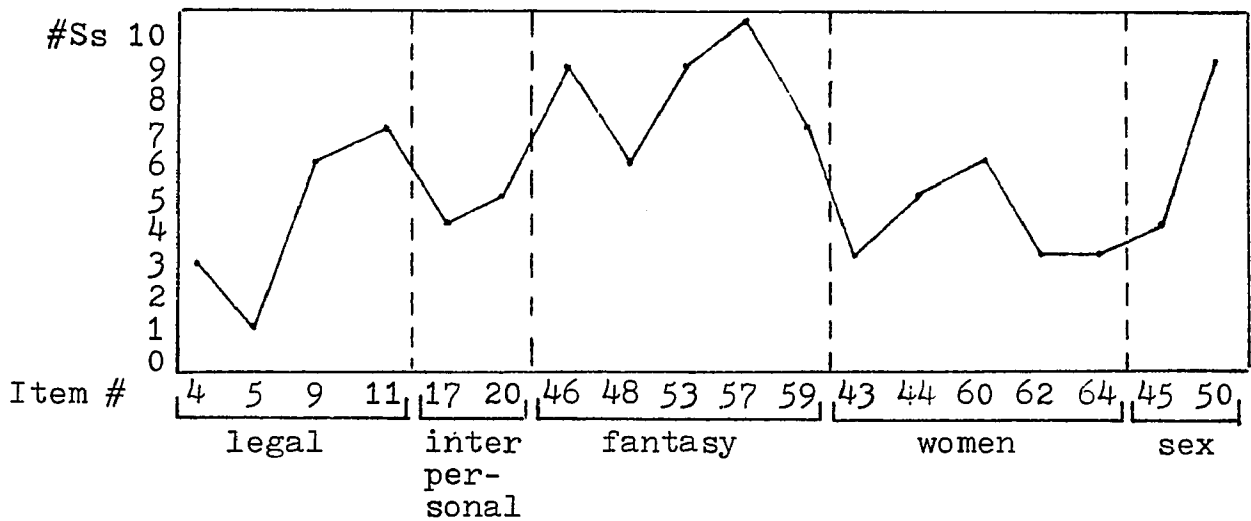
On the basis of the pattern of eliminations and looking at the distribution of scores, it appears that homosexual fantasy content and fantasy content implying an identification with feminine sexuality are more reliable and discriminating indicators of degree of defensiveness than are political and interpersonal attitudes avowed by subjects on a paper-and-pencil test (see Table K).

Frequency distributions on final 18-item version of the Defensiveness Scale for low, middle, and high defensive subjects.

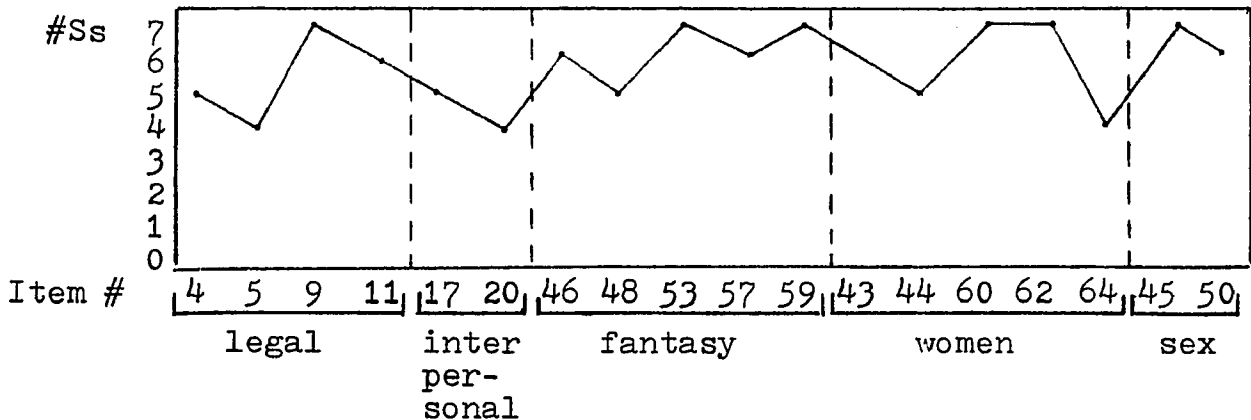
Low defensive (N=9)  
(scoring 1-6)



Middle defensive (N=10)  
(scoring 7-11)



High defensive (N=7)  
(scoring 12-17)



### Subgroup Comparisons

I had originally designed the Defensiveness Scale with the idea in mind that I would obtain a broad enough range of scores from subjects so that I could investigate the relationship between Defensiveness scores and attribution of homosexuality to the target. I expected to obtain high and low defensive groups and to find that the high defensive group would attribute more homosexuality to the targets than would the low defensive group.

When I went over the frequency distribution of scores on the Defensiveness Scale I found that the median score was 23.5 and the semi-interquartile range fell between 20 and 28. Only eight of the 30 subjects scored fewer than 21 points, that is, responded defensively on less than half of the items. The frequency distribution of defensiveness was thus skewed so that I did not have nondefensiveness adequately represented among subjects.

Nevertheless, I attempted to dig up by various means evidence for a relationship between defensiveness and attribution of homosexuality to a target. First, I looked at Pearson and Spearman correlations between defensiveness, as measured by the intermediate 25-item version of the Defensiveness Scale, and pre-post difference scores in ratings of the targets on homosexuality. I came up with correlations of practically zero. The Pearson and Spearman

correlations showed little concordance with each other, though both uniformly yielded no significant correlations between defensiveness and any of the difference scores between pre and post ratings on the Other Scale, except that between defensiveness and DISGUST, for which the Pearson was significant ( $r = .36, p < .05, r_s = .20, p = .15$ ) (see Table W in Appendix B).

The positive correlation between defensiveness and DISGUST was equivocal in meaning. For one thing, the Spearman correlation for this showed that the finding was unreliable. For another, I could not know from this relationship taken in isolation just how high defensive and low defensive subjects differed in their attribution of disgust for pornography to the targets.

Did both groups attribute more disgust to the target in the post condition, with the high defensive subjects making the greater attributions? Did low defensive subjects attribute less disgust to the targets on the post than they did in the pre condition? Or was there no difference at all between high and low defensive groups in the post condition, so that such a finding was a result of lower attributions of disgust to the targets by the high defensive subjects on the pre condition only?

To answer these questions I divided the subjects into two groups according to their defensiveness. Fifteen

subjects scoring 22 or below on the 42-item scale constituted the low defensive group. The other half scoring above 22 made up the high defensive group. I compared their pre-post differences in attribution of disgust to the targets using a simple frequency table. (See Table P.)

A difference was noted as such in this table if it was two points or more. The table reveals that the difference between the two groups is solely a result of the low defensive subjects having attributed less disgust to the targets on the post condition. It is not due to high defensive subjects having attributed more disgust to the targets on the post condition. The low defensive subjects may have rated the targets as less disgusted on the post condition as a result of attributive projection. That is, they felt less disgusted by the pictures than the high defensive group and so also attributed less disgust to the targets. This explanation is supported by the frequency distribution of subjects' Arousal Scale scores relative to defensiveness, which shows that the low defensive half reported having been less disgusted than the high group by the pornographic pictures.

To see if I could establish some kind of relationship between defensiveness scores and pre-post differences in ratings of the targets on homosexuality, this time I divided subjects into two groups according to the magnitude of their

TABLE P  
 Attribution of disgust to the target -  
 Pre-post difference

	More	Less	Un- changed
High Defensive	4	5	6
Low Defensive	2	9	4

$X^2$  (two-way) = 5.8,  $p < .10$  df = 2

(high x low x pre-post different)

$X^2$  (one-way) = .40, n.s. df = 2

(high x pre-post different)

difference rating. I came up with one group which showed a zero or small negative difference and one which showed relatively large positive differences, eliminating 13 subjects who fell in between. No subject rated the targets as significantly less homosexual on the post than on the pre condition. Did these two groups differ significantly on the Self, Arousal, or Other Scales? I used the Mann-Whitney U Test for this purpose. This test for two independent samples uses ordinal information only, whether or not an individual is above or below the overall median. It does not require that the data resemble a normal distribution. The Mann-Whitney U Test revealed no difference between the two groups on either the Self or the Arousal Scale.

The two groups did differ significantly in their attributions of homosexuality for pornographic pictures to the targets in the pre condition ( $\bar{X}_{Proj.} = 11.43$ ,  $s_D = 4.58$ ,  $\bar{X}_{NonProj.} = 20.60$ ,  $s_D = 3.27$ ,  $t = 4.84$ ,  $p < .01$ , pooled variance) and of disgust ( $\bar{X}_{Proj.} = 10.00$ ,  $s_D = 2.18$ ,  $\bar{X}_{NonProj.} = 15.20$ ,  $p < .06$ , pooled variance). They did not differ significantly in attributions of either homosexuality ( $\bar{X}_{Proj.} = 23.00$ ,  $s_D = 2.93$ ,  $\bar{X}_{NonProj.} = 20.20$ ,  $s_D = 2.82$ ,  $t = .91$ , separate variance) or disgust ( $\bar{X}_{Proj.} = 10.29$ ,  $s_D = 2.58$ ,  $\bar{X}_{NonProj.} = 14.00$ ,  $s_D = 1.25$ ,  $t = 1.43$ , pooled variance) on the post condition. In the post condition the "projectors" did attribute significantly more arousal by pornography to

the targets than did the "nonprojectors" ( $\bar{X}_{\text{Proj.}} = 26.29$ ,  $s_D = 4.86$ ,  $\bar{X}_{\text{NonProj.}} = 21.60$ ,  $s_D = 3.78$ ,  $t = 2.24$ ,  $p < .05$ , pooled variance).

It seemed that I was dealing with a mixed bag of subjects in each group, not with a group of projectors and one of nonprojectors. I was puzzled by the finding that the two groups differed in their pre ratings of the targets on homosexuality but not in their post ratings. The "projectors" increased their attributions of homosexuality to the targets after viewing the pornography. The "nonprojectors" did not, but their attributions of homosexuality to the targets had been high in the first place, in the pre condition. Were they subject to a ceiling effect in the post condition or was something else influencing their responses? These "nonprojectors" seemed peculiar. It took subsequent examinations of the data to clarify the situation.

On the other hand, that the group of "projectors" attributed greater arousal by pornography to the targets in the post condition suggested that this might be an indirect measure of projection of arousal of homosexual impulses.

I searched for any differences between the groups in their response to each of the 42 items on the original Defensiveness Scale. There were no strongly reliable differences. There was indication of a relationship for three items, 19, 44, 45, where Fisher's Exact Test revealed a

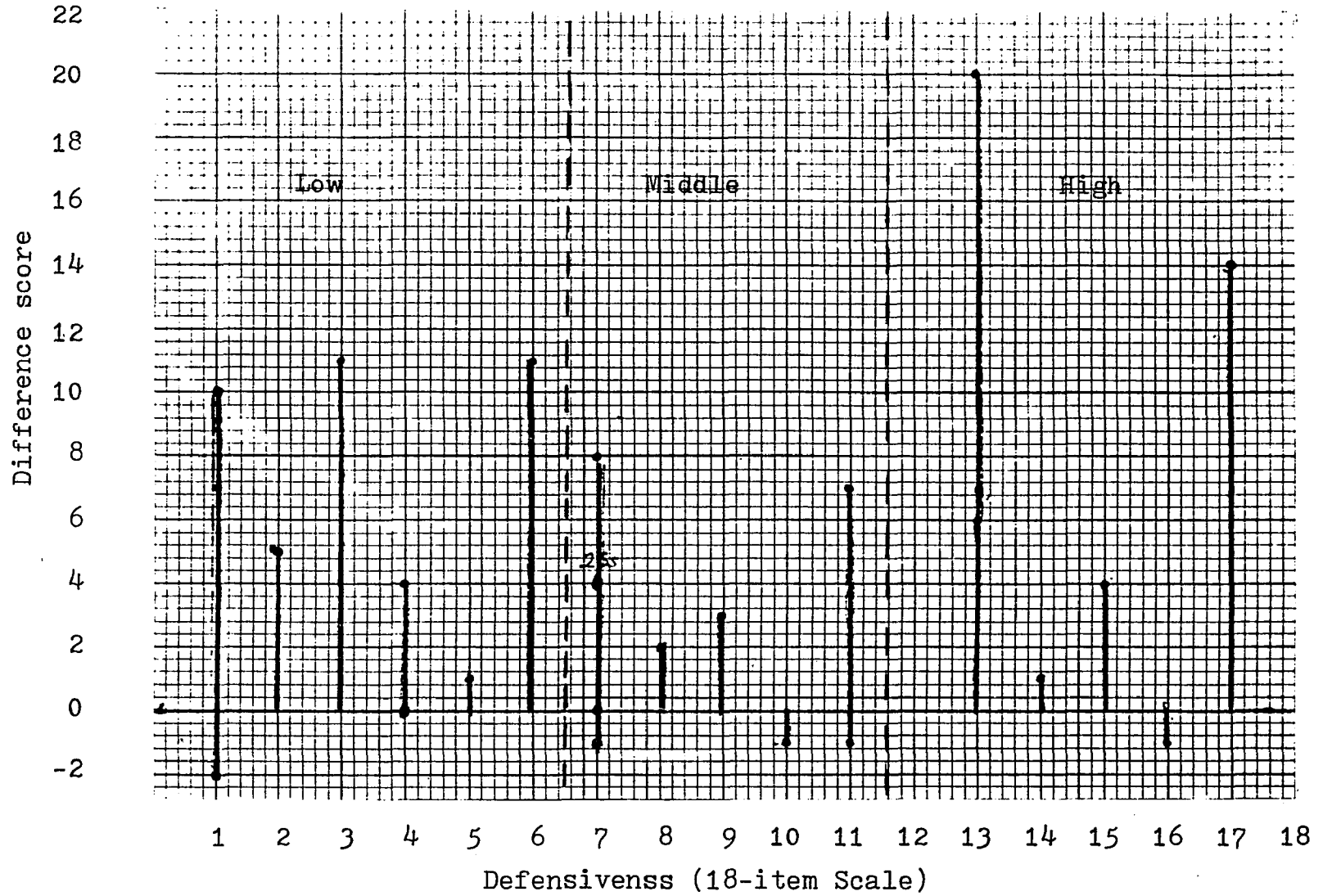
probability of occurrence of the differences by chance of .14, the contingency coefficient was .36, symmetric and asymmetric uncertainty coefficients were .11, and symmetric and asymmetric lambda were between .16 and .28. All these statistics are measures of association based upon chi-square which take into account the small size of the sample for nominal-level variables. I considered these items too few and too unreliably associated for further consideration.

These findings threw the nature of these two groups into further question. I wondered whether I was not dealing with more than two kinds of subjects. I began to suspect that the relationship between defensiveness and attribution of homosexuality to the targets in no way resembled a normal distribution and might in fact be curvilinear. An informal review of the data suggested this (see Graphs a, b and c). If so, further refinement of the Defensiveness Scale would be useless alone.

An examination of scores on the final 18-item version of the Defensiveness Scale revealed three natural groupings of low, middle, and high defensive subjects who had obtained Defensiveness scores of 1-6, 7-11, and 12-17, respectively (see Table K). Four subjects, whom I considered uncooperative, were eliminated from the subsequent analysis of the data. Three of these subjects supplied practically identical

GRAPH a

Relationship between defensiveness and pre-post difference in attribution of homosexuality to the targets by group.



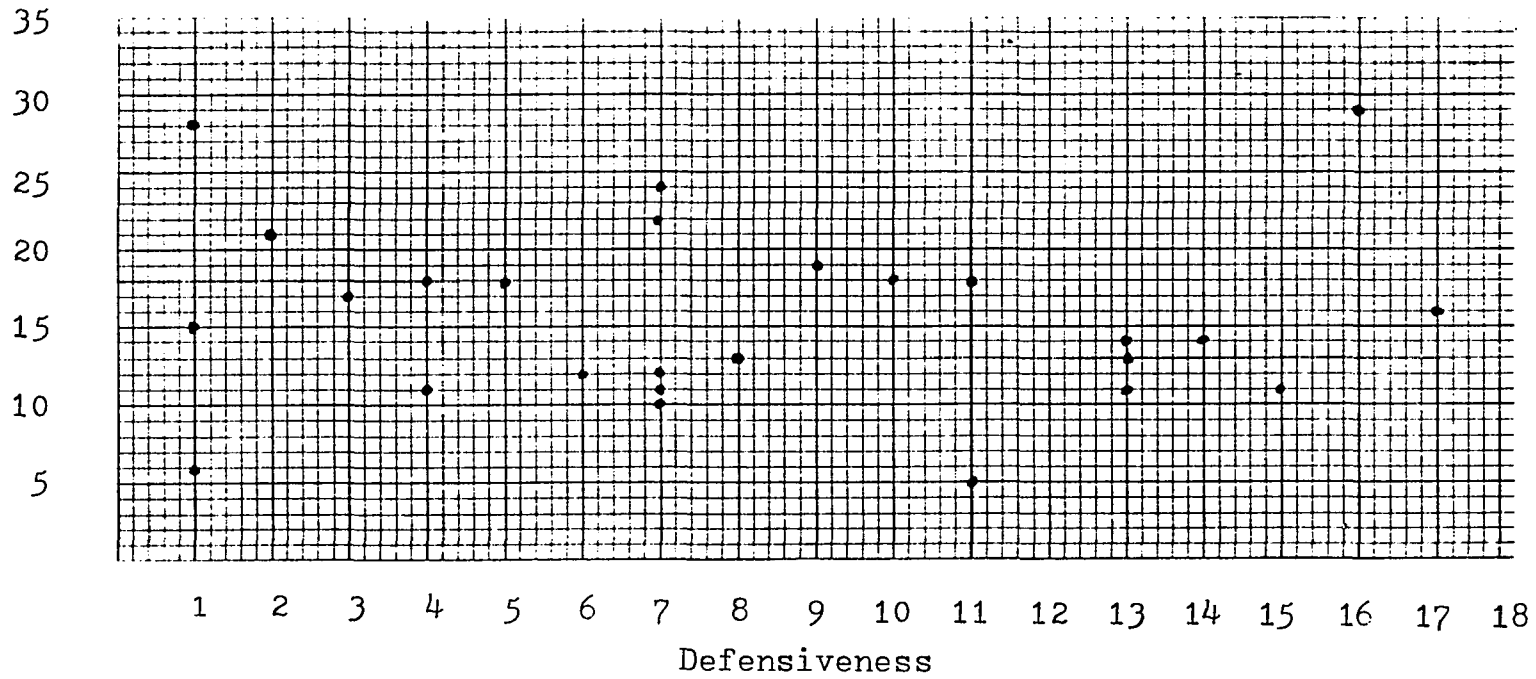
GRAPH b

Scatterplot of the relationship between defensiveness (18-item scale) and attribution of homosexuality to the targets in the pre condition.

(N=26)

HOMO?  
PRE

Pre condition



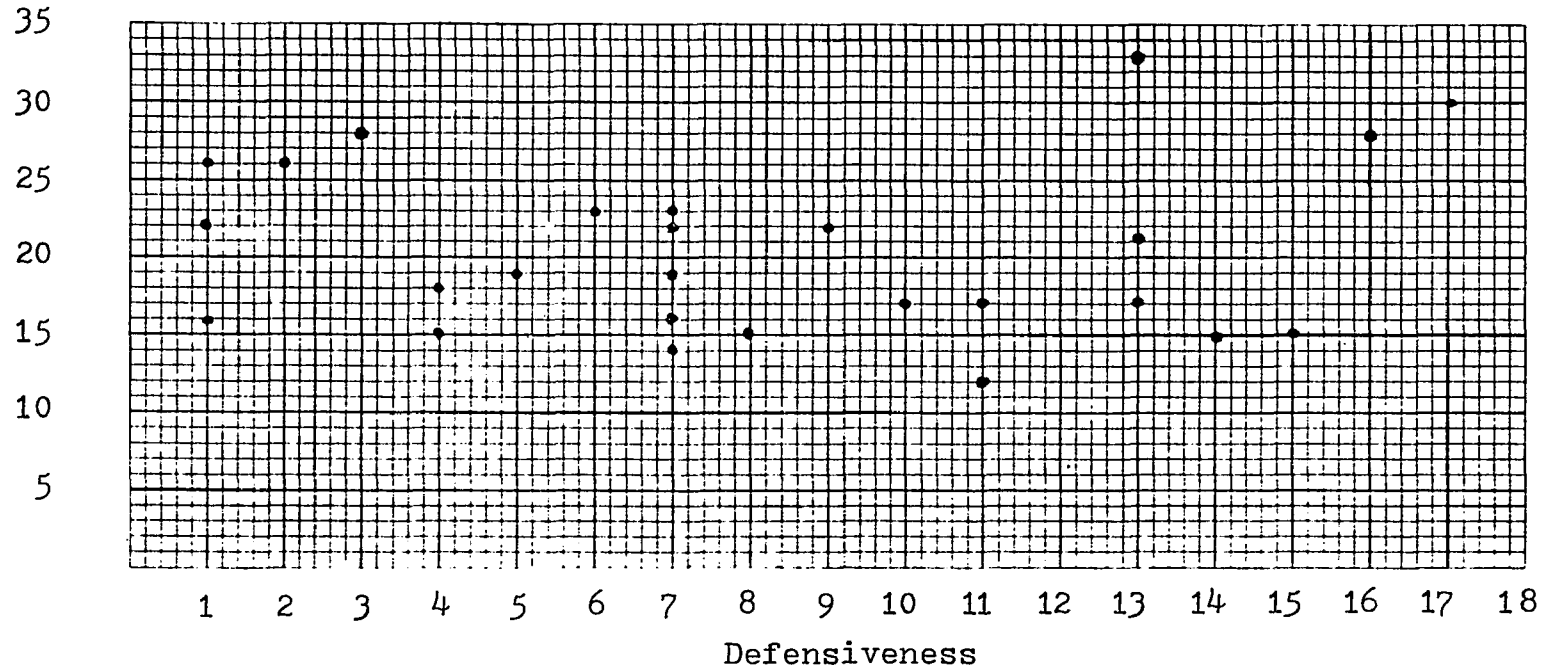
GRAPH c

Scatterplot of the relationship between defensiveness (18-item scale) and attribution of homosexuality to the targets in the post condition.

(N=26)

HOMO?  
POST

Post condition



ratings both between pre and post Other Scales and within pre and post Other Scales. They appeared to have behaved mechanically, without any relation to their reactions to the photographs per se, according to response set. The fourth uncooperative subject omitted rating the fifth photograph on the Other Scale in the pre condition.

I did the remainder of the data analysis with the three groups, low, with nine subjects, middle, with ten, and high, with seven, for a total of 26 subjects. The frequency distributions of these three groups on the 18-item Defensiveness Scale reveals that, while low defensive subjects scored consistently low within and across all categories as did high defensive subjects score consistently high, the middle group appears much more inconsistent, and therefore of indeterminate defensiveness. The important comparisons are therefore between low and high groups.

This new division of subjects into three groups clarified the failure to obtain a difference in Defensiveness Scale scores between the two groups I used previously. The "non-projector" group turned out to consist of three of the unreliable self-raters that I eliminated along with most members of the current middle group. The "projector" group consisted of equal numbers of low and high defensive subjects plus one middle subject.

I checked to see whether high and low defensive groups attributed more homosexuality to the targets after viewing

the pornography than the middle group and whether high and low groups did not differ in this regard.

The t-test comparing the pre-post Other Scale mean differences for the low and middle groups revealed a greater increase for the low group but that the difference was small and high unreliable ( $\bar{X}_{\text{Low}} = 5.22$ ,  $s_D = 4.89$ ,  $\bar{X}_{\text{Mid}} = 2.50$ ,  $t = 1.43$ ,  $p = .17^*$  pooled variance) (see Table a1). The low group did not differ from the middle group in Other Scale-PRE ratings on homosexuality while it attributed more homosexuality to the targets than the middle group in the post condition ( $\bar{X}_{\text{Low}} = 21.44$ ,  $s_D = 4.69$ ,  $\bar{X}_{\text{Mid}} = 17.70$ ,  $s_D = 3.71$ ,  $t = 1.94$ ,  $p = .07$ , pooled variance) (see Tables a2 and a3).

A comparison of the mean differences between pre and post Other Scale ratings for the high and middle groups revealed a greater increase in attribution of homosexuality to the targets by the high defensive group but that this increase was unreliable due to high variance in the high group ( $\bar{X}_{\text{Hi}} = 7.29$ ,  $s_D = 7.39$ ,  $\bar{X}_{\text{Mid}} = 2.50$ ,  $s_D = 3.31$ ,  $t = 1.61$ ,  $p = .15$ , separate variance) (see Table b1). There was no difference between high and middle groups in their ratings of the targets on homosexuality in the pre condition. The high group attributed somewhat more homosexuality to the targets than the middle group in the post condition. Again, the difference was ( $\bar{X}_{\text{Hi}} = 22.71$ ,  $s_D = 7.54$ ,  $\bar{X}_{\text{Mid}} = 17.70$ ,  $s_D = 3.71$ ,  $t = 1.63$ ,  $p = .14$ , separate variance) (see Table b3).

These findings only slightly supported my expectation

TABLE a1

Comparison of mean differences between pre and post ratings of targets of  
low and middle defensive groups.

Difference score	Mean		Low $s_D$	Middle	pooled variance		separate variance*	
	Low (N=9)	Middle (N=10)			t value	p (two- tailed)	t value	p
SEXDRIVE	-2.33	-.70	4.06	3.50	n.s.		--	
INHIBIT	-2.56	.30	5.62	4.40	n.s.		--	
HETERO	-4.33	.10	6.65	3.90	-1.80	.09	-1.75	.10 (F=2.91, p=.13)
HOMO	5.22	2.50	4.89	3.31	1.43	.17	--	
AROUSE	1.33	-.10	5.29	3.38	n.s.		--	
DISGUST	-3.78	.30	5.61	6.77	1.42	.17	--	
LIKEPORN	3.33	2.80	5.05	4.37	n.s.		--	
DISLIKE	3.11	-.80	6.51	6.51	n.s.		--	

\* separate variance estimate used when F value yields  $p < .20$ .

TABLE a2

Comparison of mean pre ratings of targets of  
low and middle defensive groups.

Other Scale -PRE	Low (N=9)	Middle (N=10)	s <sub>D</sub>		pooled variance t value	variance p (two- tailed)	separate variance*	
			Low	Middle			t value	p
SEXDRIVE?	26.56	24.50	3.97	3.31	n.s.		--	
INHIBIT?	15.56	16.20	6.00	5.41	n.s.		--	
HETERO?	23.00	20.10	7.70	6.52	n.s.		--	
HOMO?	16.22	15.20	6.32	5.94	n.s.		--	
AROUSE?	22.33	23.20	3.84	3.26	n.s.		--	
DISGUST?	13.44	11.20	7.33	4.21	n.s.		n.s.	(F=3.03, p=.12)
LIKEPORN?	20.00	20.10	5.15	5.99	n.s.		--	
DISLIKE?	13.00	14.60	5.96	10.04	n.s.		n.s.	(F=2.84, p=.16)

\* For F values with  $p < .20$

TABLE a3

Comparison of mean post ratings of targets of  
low and middle defensive groups.

Other Scale -POST	Low (N=9)	Middle (N=10)	SD		pooled variance		separate variance*	
			Low	Middle	t value	p (two- tailed)	t value	p
SEXDRIVE?	24.22	23.80	4.44	3.82		n.s.	--	
INHIBIT?	13.00	16.50	5.12	4.40	1.60	.13	--	
HETERO?	18.67	20.20	5.34	5.18		n.s.	--	
HOMO?	21.44	17.70	4.69	3.71	1.94	.07	--	
AROUSE?	23.67	23.10	6.16	1.97	---		n.s.	(F=9.80, p .01)
DISGUST?	9.67	11.50	4.36	5.06		n.s.	--	
LIKEPORN?	23.33	22.90	6.67	3.21	---		n.s.	(F=4.31, p .05)
DISLIKE?	16.11	13.80	8.45	6.97		n.s.	--	

\* for F values with  $p < .20$

TABLE a4

Comparison of mean rank of Self Scale and Arousal Scale  
scores of low and middle defensive groups.

Self Scale Item	low (N=9)	Mean rank Middle (N=10)	Mann-Whitney U	Wilcoxon Rank sum	p (two-tailed)
sexdrive	8.89	11.00		n.s.	
inhibit	10.89	9.20		n.s.	
hetero	9.50	10.45		n.s.	
homo	11.22	8.90		n.s.	
arouse	11.89	8.30		n.s.	
disgust	10.06	9.95		n.s.	
likeporn	11.83	8.35		n.s.	
Arousal Scale					
Item					
AROUSED NOW	10.89	9.20		n.s.	
HETERO NOW	10.17	9.85		n.s.	
HOMO NOW	10.67	9.40		n.s.	
DISGUST NOW	9.33	10.60		n.s.	
LIKEPORN NOW	13.39	6.95	14.5	120.5 (corrected for ties, Z=2.58, p<.01)	.01

TABLE b1

Comparison of mean differences between pre and post ratings of targets  
for high and middle defensive groups.

Difference score	Mean		High <sup>SD</sup>	Middle	pooled variance		separate variance*	
	High (N=7)	Middle (N=10)			t value	p (two- tailed)	t value	p
SEXDRIVE	-.86	-.70	6.52	3.50	--		n.s.	(F=3.47, p=.09)
INHIBIT	-.57	.30	4.35	4.40	n.s.		--	
HETERO	-.14	.10	8.11	3.90	--		n.s.	(F=4.33, p=.05)
HOMO	7.29	2.50	7.39	3.31 (F=4.99, p .05)	--		1.61	.15
AROUSE	4.43	-.10	5.44	3.38 (F=2.59, p=.19)	2.12	.05	1.95	.08
DISGUST	-2.43	.30	3.21	6.77	--		n.s.	(F=4.45, p=.08)
LIKEPORN	2.14	2.80	6.57	4.37	n.s.		--	
DISLIKE	.71	-.80	4.61	6.51	n.s.		--	

\* for F values with  $p < .20$ .

TABLE b2

Comparison of mean pre ratings of targets for  
high and middle defensive groups.

Other Scale -PRE	Mean		High $s_D$	Middle	pooled variance		separate variance*	
	(N=7)	(N=10)			t value	p	t value	p (two- tailed)
SEXDRIVE?	23.43	24.50	7.87	3.31	--		n.s.	(F=5.66, p<.05)
INHIBIT?	15.86	16.20	3.85	5.41	n.s.		--	
HETERO?	21.57	20.10	6.08	6.52	n.s.		--	
HOMO?	15.43	15.20	6.24	5.94	n.s.		--	
AROUSE?	23.14	23.20	3.89	3.26	n.s.		--	
DISGUST?	12.14	11.20	3.13	4.21	n.s.		--	
LIKEPORN?	24.14	20.10	4.67	5.99	n.s.		--	
DISLIKE?	21.00	14.60	11.37	10.04	n.s.		--	

\* for F values with p .20

TABLE b3

Comparison of mean post ratings of targets for  
high and middle defensive groups.

Other Scale -POST	Mean		High <sup>SD</sup>	Middle	pooled variance		separate variance*	
	High (N=7)	Middle (N=10)			t value	p	t value	p (two- tailed)
SEXDRIVE?	22.57	23.80	11.12	3.82	--		n.s.	(F=8.45, p .01)
INHIBIT?	15.29	16.50	4.57	4.40	n.s.		--	
HETERO?	21.43	20.20	4.28	5.18	n.s.		--	
HOMO?	22.71	17.70	7.54	3.17	1.83	.09 (F=4.3, p=.06)	1.63	.14
AROUSE?	27.57	23.10	2.44	1.97	4.18	<.01	--	
DISGUST?	9.71	11.50	1.89	5.06	--		n.s.	(F=7.17, p<.05)
LIKEPORN?	26.29	22.90	3.90	3.21	1.96	.07	--	
DISLIKE?	21.71	13.80	9.67	6.97	1.97	.07	--	

\* for F values with p .20

TABLE b4

Comparison of mean rank of Self Scale and Arousal Scale  
scores of high and middle defensive groups.

Self Scale Item	High (N=7)	Mean rank Middle (N=10)	Mann-Whitney U	Wilcoxon Rank sum	p (two-tailed)
sexdrive	8.43	9.40			n.s.
inhibit	7.71	9.90			n.s.
hetero	8.57	9.30			n.s.
homo	8.50	9.35			n.s.
arouse	9.71	8.50			n.s.
disgust	8.93	9.05			n.s.
likeporn	8.43	9.40			n.s.
Arousal Scale Item					
AROUSED NOW	7.57	10.00			n.s.
HETERO NOW	11.43	7.30	18.0	80.0 (corrected for ties, Z=1.73, p=.08)	.11
HOMO NOW	7.00	10.40	21.0 (corrected for ties, Z=1.86, p=.06)	49.0	.19
DISGUST NOW	10.21	8.15			n.s.
LIKEPORN NOW	7.93	9.75			n.s.

that both low and high defensive groups would attribute more homosexuality to targets after viewing pornography than would the middle group. I felt that the level of defensiveness and the nature of response to the experimental condition of the middle group were more indeterminate in nature than those of high and low groups. Therefore I focused my examination on a comparison of the two extremes of defensiveness, the high and low groups.

I first looked to see how they resembled each other. They did not differ in their attribution of homosexuality to the targets in either the pre or the post condition (see Table\_c3).

With these findings in mind, I examined the data to see whether the low defensive group, unlike the high defensive group, included subjects who were disparate in terms of the nature of their attribution of homosexuality to others. In other words, I wondered if the low group consisted in whole or part of honestly nondefensive subjects who attributively projected homosexuality to others. If this were so, then the low group should have been more likely to admit homosexual drive as part of its self image than the high group. If so, I then expected the low group to view the targets in the post condition with less dislike than the high group. I would also expect the low group to have reported greater sexual arousal, a greater share of homosexual feelings, less

TABLE c1

Comparison of mean differences between pre and post ratings of targets for  
low and high defensive groups.

Difference score	Mean		Low	s <sub>D</sub>	High	pooled variance		separate variance*	
	Low (N=9)	High (N=7)				t value	p (two- tailed)	t value	p
SEXDRIVE	-2.33	-.86	4.06		6.52	n.s.		--	
INHIBIT	-2.56	-.57	5.62		4.35	n.s.		--	
HETERO	-4.33	-.14	6.65		8.11	n.s.		--	
HOMO	5.22	7.29	4.89		7.39	n.s.		--	
AROUSE	1.33	4.43	5.29		5.44	n.s.		--	
DISGUST	-3.78	-2.43	5.61		3.21	n.s.		n.s.	
LIKEPORN	3.33	2.14	5.05		6.57	n.s.		--	
DISLIKE	3.11	.71	6.51		4.61	n.s.		--	

\* for F values with  $p < .20$

TABLE c2

Comparison for mean pre ratings of targets for  
low and high defensive groups.

Other Scale -PRE	Mean		s <sub>D</sub>		pooled variance		separate variance*	
	Low (N=9)	High (N=7)	Low	High	t value	p (two- tailed)	t value	p
SEXDRIVE?	26.56	23.43	3.97	7.87	n.s.	(F=3.93, p=.08)	n.s.	
INHIBIT?	15.56	15.86	6.00	3.85	n.s.		--	
HETERO?	23.00	21.57	7.70	6.08	n.s.		--	
HOMO?	16.22	15.43	6.32	6.24	n.s.		--	
AROUSE?	22.33	23.14	3.84	3.89	n.s.		--	
DISGUST?	13.44	12.14	7.33	3.13	--		n.s.	(F=5.48, p=.05)
LIKEPORN?	20.00	24.14	5.15	4.67	1.66	.12	--	
DISLIKE?	13.00	21.00	5.96	11.37	1.82	.09 (F=3.64, p=.10)	1.69	.13

\* for F values with  $p < .20$

TABLE c3

Comparison of mean post ratings of targets for  
low and high defensive groups.

Other Scale -POST	Mean		$s_D$		pooled variance		separate variance*	
	Low (N=9)	High (N=7)	Low	High	t value	p (two- tailed)	t value	p
SEXDRIVE?	24.22	22.57	4.44	11.12	--		n.s.	(F=6.28, p<.05)
INHIBIT?	13.00	15.29	5.12	4.57	n.s.		--	
HETERO?	18.67	21.43	5.34	4.28	n.s.		--	
HOMO?	21.44	22.71	4.69	7.54	n.s.		--	
AROUSE?	23.67	27.57	6.16	2.44	--	(F=6.38, p<.05)	1.73	.11
DISGUST?	9.67	9.71	4.36	1.89	--		n.s.	(F=5.32, p=.06)
LIKEPORN?	23.33	26.29	6.67	3.90	n.s.		--	
DISLIKE?	16.11	21.71	8.45	9.66	n.s.		--	

\* for F values with p<.20

disgust, and more liking for the pornographic pictures on the Arousal Scale than would the high group.

I found that the low group reported less dislike of the targets in the pre condition than the high group, though this finding was unreliable ( $\bar{X}_{Low} = 13.00$ ,  $s_D = 5.96$ ,  $\bar{X}_{Mid} = 21.00$ ,  $s_D = 11.37$ ,  $t = 1.82$ ,  $p = .09$ , pooled variance,  $t = 1.69$ ,  $p = .13$ , separate variance) (see Table c2). The high group was inconsistent in its ratings of dislike for the targets, as was the middle group. On the other hand, the low group did not report less dislike than the high group on the post condition (see Table c3).

There was a small, unreliable difference between low and high groups on reported sexual arousal (AROUSE NOW), as measured by the Mann-Whitney U/ Wilcoxon T test, which is appropriate for small samples ( $N < 20$ ) and ordinal data and thus applicable to an analysis of Arousal Scale scores which can be considered self rankings. This test gave a mean rank of 9.83 for the low group, 6.79 for the high group,  $U = 19.5$ ,  $W = 47.5$ , n.s., corrected for ties,  $Z = 1.46$ ,  $p = .14$  (see Table c3).

Comparing the two groups on homosexual feelings after viewing the pornography (HOMO NOW) I found that low defensive subjects rated themselves significantly higher on homosexual feelings than did the high defensive group (mean rank<sub>Low</sub> = 10.06, mean rank<sub>Hi</sub> = 6.50,  $U = 17.5$ ,  $W = 47.5$ ,

corrected for ties,  $Z = 1.95$ ,  $p = .05$ ) (see Table c4).

The two groups did not differ significantly in reported disgust on the arousal scale. They did differ on how much they liked looking at the pornographic pictures. The low defensive group reported significantly greater liking for the pictures (mean rank<sub>Low</sub> = 11.06, mean rank<sub>Hi</sub> = 5.21,  $U = 8.5$ ,  $W = 36.5$ ,  $p .05$ ) (see Table c4).

In sum, the low defensive group differed significantly from the high defensive group in greater homosexual feelings and liking for the pornographic pictures in the post condition, and weakly and unreliably in greater reported arousal. This indicates that the low defensive group's projection of homosexuality to the targets was attributive in nature, as opposed to the high defensive group's, which appeared to fit the classical type better.

The breakdown by ethnicity of the three groups as well as of those subjects eliminated from the analysis should be noted. The low defensive group of nine subjects consisted of seven white Americans and two black Americans. The ten-member middle group was composed of four white Americans and six nonwhites of various nationalities. The seven subjects in the high defensive group were made up of three white Americans, one white non-American, and three nonwhites of various nationalities. Of the four subjects eliminated, two were black American, two were nonwhite non-Americans.

TABLE c4

Comparison of mean rank of Arousal Scale scores of low and high defensive groups.

Arousal Scale Item	Mean rank Low (N=9)	Mean rank High (N=7)	Mann-Whitney U	Wilcoxon Rank sum	p (two-tailed)
AROUSED NOW	9.83	6.79	19.5	47.5 (corrected for ties, Z=1.46, p=.14)	.21
HETERO NOW	7.17	10.21		n.s. (corrected for ties, Z=1.36, p=.17)	
HOMO NOW	10.06	6.50	17.5	45.5 (corrected for ties, Z=1.95, p=.05)	.14
DISGUST NOW	7.28	10.07		n.s.	
LIKEPORN NOW	11.06	5.21	8.5	36.5	.01

Thus all low defensive subjects were American, the majority white. Since the target figures were white it might at first seem reasonable to speculate that the white subjects felt more akin to the white target figures than did the nonwhites, setting up a condition more favorable for attributive projection. However, examination of the frequency distribution by race and ethnicity reveals that American nationality, not race, differentiated the low defensive group from the others. This suggests the possibility that the cultural background of American college males residing in New York City as compared to that of non-American college males residing in New York City promotes less defensiveness regarding homosexuality. Also, neither the three Hispanic Americans in the sample nor the two Hispanic non-Americans fell in the low defensive group.

The two groups did not differ significantly and were in effect matched in usual sexual drive, heterosexual drive, how much aroused by pornographic pictures, how much disgusted by pornographic pictures, inhibition about sex, and liking for pornography in the pre condition as reported on the Self Scale (see Table c5). They differed nearly significantly only on admitted homosexual drive (mean  $\text{rank}_{\text{Low}} = 9.67$ , mean  $\text{rank}_{\text{Hi}} = 7.00$ ,  $U = 21.0$ ,  $W = 49.0$ , corrected for ties,  $Z = 1.63$ ,  $p = .10$ ). This small difference adds slightly more support for the attributive

TABLE c5

Comparison of mean rank of Self Scale scores of low and high defensive groups.

Self Scale Item	Mean rank		Mann-Whitney U	Wilcoxon Rank sum	p (two-tailed)
	Low (N=9)	High (N=7)			
sexdrive	8.00	9.14		n.s.	
inhibit	9.83	6.79		n.s.	
hetero	8.67	8.29		n.s. (corrected for ties, Z=1.29, p=.20)	
homo	9.67	7.00	21.0	n.s. (corrected for ties, Z=1.63, p=.10)	
arouse	9.17	7.64		n.s.	
disgust	8.67	8.29		n.s.	
likeporn	9.89	6.71		n.s. (corrected for ties, Z=1.35, p=.18)	

projection explanation of the findings for the low defensive group. On the other hand, the low group reported less dislike for the targets than did the high group in the pre condition only, and the difference was unreliable. There was no difference between groups on this measure in the post condition, which fails to confirm one aspect of what I expected to occur in the case of attributive projection.

## CHAPTER V

Summary, Discussion, and Implications  
for Future Research

The principal finding of this study was that heterosexual male subjects found male figures significantly more homosexual appearing after they viewed homosexual pornographic pictures. These subjects claimed that they would be very distressed by the discovery of homosexuality in themselves. Highly correlated with defensiveness regarding homosexuality was defensiveness regarding sex in general, against imagining what it might be like to be a woman and against expressing curiosity about how women satisfy themselves sexually.

Subjects appeared to attribute to others an impulse of which they disapproved, excluded from self image, and disavowed as part of their experience in viewing pictures explicitly designed to excite a homosexual response. This set of phenomena fits the concept of classical projection.

One aspect of the concept, nature of the target, was not adequately explored. Unfavorability was hardly confirmed as a necessary characteristic of the target. Subjects as a group did not say they disliked the male figures more after viewing the homosexual pornography. The correlation between ratings of homosexual drives and degree of dislike for the target after subjects viewed the pornographic

pictures was small and unreliable.

This dearth of confirming evidence could be explained by the nature of the measure used. On the Other Scale subjects were asked to rate each target on a scale of one to seven as to how much they disliked the man. They were thus given the choice of not revealing a strong reaction of dislike. It is possible that subjects were reluctant to make an obvious value judgment blatantly based on personal bias. This is probable given that DISLIKE? ratings were uniformly moderate to low for practically all subjects, so that there was little overall variability on this measure. Additionally, DISLIKE?, of all the Other Scale items, produced the fewest correlations with other items (see Table Q1 and Q2 in Appendix B).

Subjects might have more willingly rated the faces according to immediate impression if the measure had been designed differently, in a way which would seem less self-revealing. This could have been done by asking subjects how dislikable the faces seemed to appear rather than by asking them directly how much they disliked them. Another way to have disguised the self-revelatory nature of the ratings of the targets would have been to instruct subjects to rate the faces as would a casting director who must go by appearances in assigning parts to actors.

Another measure of dislike I could have used was

Zimmer's (1953) and Halpern's (1974). These authors asked subjects to order photographs of strangers' faces from most liked or favorable to least liked or unfavorable. They thus forced subjects to make a full range of judgments and to define certain targets as more unfavorable beforehand. This could lead subjects to consciously rationalize their ratings to a greater degree than otherwise, however.

When subjects were broken down into three groups according to defensiveness scores, the high group said they disliked the targets more but did not see them as more homosexual than did the low group before viewing the pornography. The difference between groups in how much they disliked the targets was not reliable, however, because of the great variability in the high group on this measure. Perhaps high defensive subjects disliked the targets more than did the low defensive group but some tended to disown this.

It is possible that high defensive males to begin with tend to dislike those targets which arouse homosexual wishes in them though they are not aware of these wishes or of homosexual aspects of the target. They are only conscious of their reaction of dislike. It could be that only after exposure to an overtly homosexual situation homosexual arousal reaches a degree strong enough to force into awareness the high defensive male's sensitization to

homosexuality in a disliked target. This would explain the greater dislike of the targets before exposure to pornography and higher attributions of homosexuality to the targets, while dislike for them remained unchanged, after exposure to pornography by the high defensive group. The nature of the target of classical projection surely is more complex than dislikability and needs much more finely tuned investigation.

I had hoped to correlate degree of defensiveness with degree of homosexuality attributed to male figures by breaking the subjects down into low and high defensive groups. While the entire sample of 30 subjects was defensive about homosexuality as a group, some distinction could be made among them in level of defensiveness. Nevertheless, level of defensiveness did not correlate in a straightforward way with attribution of homosexuality to targets. I thought the relationship might be curvilinear and found moderate support in the results for this expectation.

In comparing low, middle, and high defensive groups, I found that the low and high groups differed somewhat but not to a very significant degree from the middle group in their attributions of homosexuality to targets after exposure to pornography. The level of defensiveness and the nature of response to the experimental condition of the middle group seemed more indeterminate in nature than those

of the high and low groups. I focused my examination on a comparison of these latter two.

High and low defensive groups did not differ in their attribution of homosexuality to the targets either before or after exposure to pornography. On the other hand, the low defensive group, unlike the high defensive subjects, reported somewhat less dislike of the targets than did the high group in the pre condition, though this difference was highly unreliable. Low defensive subjects also reported somewhat greater sexual arousal after viewing the pornography than did the high defensive group, but again this difference was not very reliable. Low defensive subjects rated themselves significantly higher on homosexual feelings on the post condition, however, and on having liked looking at the pornographic pictures more than did the high group. The two groups did not significantly differ in reported disgust for the pictures on the other hand, contrary to what I expected.

The overall pattern of these results for high and low defensive groups suggests that the former displayed classical projection, the latter, attributive projection. This conceptualization of the data is further supported by the finding that the two groups were matched in the pre condition in usual sexual drive, heterosexual drive, how much aroused and disgusted by, and how much they liked pornographic

pictures in general, and in sexual inhibition. Though the difference was not very reliable, the low defensive group reported somewhat more homosexual drive in the pre condition consonant with the notion that as admitting homosexual impulses as a part of self image, they would attributively project homosexual impulses.

A more refined study should be done which would pre-select subjects who exhibit extremes of defensiveness and nondefensiveness. The sample I used represented the moderate to moderately high defensive end of the continuum with a few highly defensive subjects and even fewer minimally defensive subjects. The handful of subjects at these extremes neatly fitted the patterns for attributive and classical projection respectively but were too few ( $N = 4$ , one very low defensive and three highly defensive) on which to draw statistical conclusions.

The Defensiveness Scale served mainly to define the whole group as heterosexual in orientation and either defensive about homosexuality or frankly lacking in either conscious or unconscious homosexual tendencies rather than to subtly distinguish degrees of defensiveness. Many of the items seemed to be inclusive rather than exclusive, so that all high defensive subjects responded to them in the defensive direction, but some less defensive subjects also did so, such as never wondering what it would be like

to be a female prostitute, being against homosexual marriages, and never having homosexual fantasies. One item was purely exclusive, admission of sometimes wishing to see a woman masturbate, but it screened out most relatively low defensive subjects also.

This was a crude experimental test of classical projection involving numerous confounding factors. However, it is important to point out that such confounding factors served to obscure more significant results rather than to produce artifactual findings.

An additional factor that probably weakened the results was the fact that subjects timed their own viewing of the pornographic material. Although the instructions were to look at the pornography for a full ten minutes, eight subjects viewed it for five minutes or less, and only 16 viewed it for the full ten minutes, the remaining subjects falling evenly between these extremes. Thus the effectiveness of the pornography as a manipulator of arousal of homosexual wishes may have been substantially reduced.

Some subjects resorted to adaptive or defensive maneuvers which also could have reduced the impact on them of the homosexual material. One subject said he imagined that one member of each couple depicted in a sexual act was a woman. Another subject stated that he focused on each man

in the pictures as an individual, whose handsome body he envied for the sake of seducing women. A third subject focused on his feeling of pity for homosexual women.

The use of a separate control group might have strengthened the results, since extraneous practice effects may have influenced subjects' ratings of the target figures a second time. However, this was not feasible because of the small sample size.

Sex of the experimenter might have also influenced the findings. I would speculate that the fact that I am female made no difference for genuinely nondefensive subjects and could have put highly defensive subjects more at ease than would have a male experimenter, reducing the experimental effects somewhat.

Perhaps the biggest confounding factor from which this study suffers, as does all laboratory research, is subjects' awareness that they are being observed, their resulting self consciousness, and the meaning they give to the situation. No matter how veridical the situation with which they are presented in terms of daily life, they know their reactions to the situation are a task to be performed and this allows them to detach themselves from and rationalize these reactions. They are set up as rational observers of themselves, especially if the experimenter uses a minimum

of deception, if only because of the orderliness with which they are presented a series of numbered questions. This allows them more conscious control over their judgments and perceptions, inhibiting the expression of reactions resulting from a non-rational process such as classical projection.

## APPENDIX A

Equivalence of the two sets of targets

I analyzed Other Scale ratings of the two sets of target photographs of male faces given in alternate order to odd and even number targets. I found that the two sets of faces were practically equivalent. Ratings on all items did not significantly differ for the two sets. On one rating only, how much the target liked pornography, was there a difference close to significance ( $\bar{X}_{\text{set A}} = 20.33$ ,  $s_D = 7.65$ ,  $\bar{X}_{\text{set B}} = 22.67$ ,  $s_D = 5.05$ ,  $t = 1.82$ ,  $p = .08$ ).

TABLE I

Comparison of mean ratings of the two sets of target photographs of male faces.

Other Scale Item	Set A (PRE for odd-numbered Ss)		Set B (PRE for even-numbered SS)		t value	probability (two-tailed)
	Mean	Standard Deviation	Mean	Standard Deviation		
1. SEXDRIVE?	22.27	8.80	24.60	4.82	1.57	ns
2. INHIBIT?	16.07	5.13	14.90	6.27	1.12	ns
3. HETERO?	20.30	6.85	19.83	6.56	.30	ns
4. HOMO?	17.90	7.60	17.70	4.65	.15	ns
5. AROUSE?	23.13	5.66	22.93	4.08	.17	ns
6. DISGUST?	11.13	4.92	12.00	5.76	.76	ns
7. LIKEPORN?	20.33	7.65	22.67	5.05	1.82	.08
8. DISLIKE?	15.53	9.76	15.53	8.63	0.0	ns

TABLE W

Pearson and Spearman correlations between defensiveness (25-item scale)  
and pre-post difference scores on the Other Scale.

	SEXDRIVE	INHIBIT	HETERO	HOMO	AROUSE	DISGUST	LIKEPORN	DISLIKE
Pearson	n.s.	n.s.	n.s.	n.s.	n.s.	.36 p<.05	n.s.	n.s.
Spearman	n.s.	n.s.	.26 p=.08	n.s.	n.s.	.20 p=.15	n.s.	n.s.

APPENDIX B  
Tables of additional results

TABLE Q1

Comparison of ratings of facial photographs of male strangers with each other on the Other Scale administered BEFORE subjects' exposure to homosexual pornography.

Spearman correlation coefficients

Item	SEXDRIVE?	INHIBIT?	HETERO?	HOMO?	AROUSE?	DISGUST?	LIKEPORN?
INHIBIT?	ns						
HETERO?	** .31 (.05)	ns					
HOMO?	ns	ns	** -.48 ( $<.01$ )				
AROUSE?	** .38 ( $<.05$ )	ns	** .50 ( $<.01$ )	-.23 (.11)			
DISGUST?	ns	** .53 ( $<.01$ )	ns	** .46 ( $<.01$ )	ns		
LIKEPORN?	* .27 (.08)	ns	** .33 ( $<.05$ )	ns	** .64 ( $<.01$ )	ns	
DISLIKE?	ns	* .25 (.09)	ns	.22 (.12)	ns	ns	** .30 (.052)

(Decimals in parentheses designate significance levels.)

(Two asterisks indicate a significant correlation.)

(One asterisk indicates a near-significant correlation.)

TABLE Q2

Comparison of ratings of facial photographs of male strangers with each other on the Other Scale administered AFTER subjects' exposure to homosexual pornography.

Spearman correlation coefficients

Item:	OS Item:						
	SEXDRIVE?	INHIBIT?	HETERO?	HOMO?	AROUSE?	DISGUST?	LIKEPORN?
INHIBIT?	-.21 (.13)						
HETERO?	ns	ns					
HOMO?	ns	ns	**-.44 ( $<.01$ )				
AROUSE?	ns	ns	** .41 ( $<.01$ )	ns			
DISGUST?	ns	** .58) ( $<.01$ )	-.23 (.11)	ns	-.23 (.11)		
LIKEPORN?	*-.25 ( $<.09$ )	ns	** .34 ( $<.05$ )	ns	** .59 ( $<.01$ )	**-.40 ( $<.05$ )	
DISLIKE?	**-.52 ( $<.01$ )	ns	ns	* .28 (.06)	ns	ns	ns

(Two asterisks indicate a significant correlation.)

(One asterisk indicates a near-significant correlation.)

APPENDIX C

Original Version of Scored Items on the Defensiveness Scale

<u>Item #</u>	<u>Item</u>	<u>Category</u>	<u>Postulated Test Defensive Response</u>
4	I do not believe that male homosexuals should be allowed to be schoolteachers.	LEGAL	True
5	I believe that female homosexuals should be allowed to be schoolteachers.		False
7	I believe that homosexuality should be considered legal grounds for divorce.		True
9	I do not think the law should recognize homosexual marriages.		True
11	I believe that a homosexual couple should be denied the right to adopt a child.		True
13	Personally, I would prefer not to work for a male homosexual boss.		INTER- PERSONAL
15	Personally, I would feel no disgust if I were		

	to see two men kissing each other on the lips in the street.	False
17	I would prefer not to have a male homosexual for a friend.	True
20	Personally, I would rather not work with a male homosexual colleague.	True
22	Personally, If a homosexual made sexual advances to me, I would feel angry at him.	True
24	If I were to have a homosexual sister, I would be very bothered by it.	True
25	If I were to have a homosexual sister, I would be somewhat bothered by it.	True
26	If I were to have a homosexual brother, I would be somewhat distressed by it.	True
27	If I were to have a homosexual brother, I would be very distressed by it.	True
29	Personally, if I saw two male friends kiss each other on the cheek in greeting, I would	

INTERPERSONAL

	think they were acting effeminate.	True
31	It would not matter to me if some of my friends were homosexual.	False
34	I would not mind it if my best friend were homosexual.	False
36	I am entirely heterosexual.	True
37	I am entirely homosexual.	False
38	I am bisexual.	False
39	If I were homosexual or discovered that I had strong homosexual feelings, I think I would probably feel distressed about it.	True
41	While I am heterosexual, I believe I have strong bisexual tendencies.	False
42	While I am not a practicing homosexual, I believe I have homosexual tendencies.	False
46	I have sometimes had the fantasy of having sex with a man.	False
48	I have never had the fantasy of having sex with a man.	True

ORIENTATION

FANTASY

51	I have never felt sexually attracted to a little boy.	FANTASY	True
53	I have never wondered what it would be like to see two men having sex with each other.		True
57	I have sometimes wondered how other men masturbate.		False
58	I never have homosexual fantasies.		True
12	Personally, I would prefer not to work for a female boss.	WOMEN	True
18	If I were going to a costume ball for Halloween, it might occur to me to dress up as a woman.		False
19	I prefer women who will make active sexual advances to a man.		False
44	I have sometimes wondered what it would be like to have a woman's body.		False

60	I have sometimes wondered what it is like to be a female prostitute.	 WOMEN	False
62	I have never wondered what it would be like to be a female prostitute.		True
64	There are times when I wish I could be made love to without my having to do anything, surrendering myself to my own pleasurable feelings.		False
43	I have sometimes wished I could watch a woman masturbate.	 SEX	False
45	I often have fantasies with sexual content.		False
49	I sometimes have fantasies where I have sex with a woman.		False
50	I have never felt sexually attracted to a little girl.		True
52	I often have fantasies where I have sex with a woman.		False
55	I have never had the fantasy of having sex with a woman.		True

## APPENDIX D

## Instruction fact sheet for Defensiveness Scale

## INSTRUCTIONS

After reading each statement on the pages that follow,  
please write in the space to the left of it:

T if the statement is true for you personally or

F if the statement is false for you personally.

Please answer all statements.

Please answer as spontaneously as possible and do not  
spend too much time on any of the statements.

Try to finish this part within 15 minutes.

Use the clock provided to time yourself.

Please write the time on the clock now: \_\_\_\_\_

DEFENSIVENESS SCALE

1. I believe that adultery should be considered legal grounds for divorce.
2. It should be entirely legal to have theaters where live sexual exhibitions are performed.
3. I do not believe that the child of a man and woman who are not married to each other should be considered illegitimate.
4. I do not believe that male homosexuals should be allowed to be school teachers.
5. I believe that female homosexuals should be allowed to be school teachers.
6. I believe that contraceptives should be made available to minors without their parents' consent.
7. I believe that homosexuality should be considered legal grounds for divorce.
8. I believe that the law should be changed to make it easier to convict rapists.
9. I do not think the law should recognize homosexual marriages.
10. I believe that prostitution should be legalized.
11. I believe that a homosexual couple should be denied the right to adopt a child.
12. Personally, I would prefer not to work for a female boss.
13. Personally, I would prefer not to work for a male

homosexual boss.

14. If a male friend of mine were to tell me he had participated in an orgy, I would wonder about his sexual morality.
15. Personally, I would feel no disgust if I were to see two men kissing each other on the lips in the street.
16. Personally, the idea I have of the kind of people who participate in orgies is that I would not like them for it.
17. I would prefer not to have a male homosexual for a friend.
18. If I were going to a costume ball for Halloween, it might occur to me to dress up as a woman.
19. I prefer women who will make active sexual advances to a man.
20. Personally, I would rather not work with a homosexual male colleague.
21. If a female friend of mine were to tell me she had participated in an orgy, I could not help feeling she had cheapened herself sexually.
22. Personally, if a homosexual made sexual advances to me, I would feel angry at him.
23. Personally, I would feel embarrassed seeing a man and woman kissing and embracing near me.
24. If I were to have a homosexual sister, I would be very

- bothered by it.
25. If I were to have a homosexual sister, I would be somewhat bothered by it.
  26. If I were to have a homosexual brother, I would be somewhat distressed by it.
  27. If I were to have a homosexual brother, I would be very distressed by it.
  28. Personally, I would rather that any girlfriend of mine did not tell me about her previous sexual relations with men.
  29. Personally, if I saw two male friends kiss each other on the cheek in greeting, I would think they were acting effeminate.
  30. If a friend of mine were to confess to me that he was a voyeur, I would feel disgusted.
  31. It would not matter to me if some of my friends were homosexual.
  32. I am not disgusted by people who enjoy going to pornographic movies.
  33. I am disgusted by men who enjoy peep shows.
  34. I would not mind it if my best friend were homosexual.
  35. I think women who pose for nude pictures are probably exhibitionists who get sexual pleasure from being seen.
  36. I am entirely heterosexual.
  37. I am entirely homosexual.

38. I am bisexual.
39. If I were homosexual or discovered that I had strong homosexual feelings, I think I would probably feel distressed about it.
40. While I am not a voyeur, I believe I have strong voyeuristic tendencies.
41. While I am heterosexual, I believe I have strong bisexual tendencies.
42. While I am not a practicing homosexual, I believe I have homosexual tendencies.
43. I have sometimes wished I could watch a woman masturbate.
44. I have sometimes wondered what it would be like to have a woman's body.
45. I often have fantasies with sexual content.
46. I have sometimes had the fantasy of having sex with a man.
47. I have sometimes wished I could watch people having sex.
48. I have never had the fantasy of having sex with a man.
49. I sometimes have fantasies where I have sex with a woman.
50. I have never felt sexually attracted to a little girl.
51. I have never felt sexually attracted to a little boy.
52. I often have fantasies where I have sex with a woman.
53. I have never wondered what it would be like to see two

men having sex with each other.

54. I have never wondered what it would be like to go to bed with a prostitute.
55. I have never had the fantasy of having sex with a woman.
56. I have sometimes wished I could go to bed with a prostitute.
57. I have sometimes wondered how other men masturbate.
58. I sometimes wish I could be in an orgy.
59. I never have homosexual fantasies.
60. I have sometimes wondered what it is like to be a female prostitute.
61. I have never wanted to go see a pornographic movie.
62. I have never wondered what it would be like to be a female prostitute.
63. I derive pleasure from looking at sexy pictures.
64. There are times when I wish I could be made love to without my having to do anything, surrendering myself to my own pleasurable feelings.
65. I have sometimes had the fantasy of acting in a pornographic picture.

SELF SCALE

Please answer according to how you usually are.

	Very little			Moderately			Very much
1. How much sexual drive do you have?	1	2	3	4	5	6	7
2. How inhibited are you about sex?	1	2	3	4	5	6	7
3. How much of your sexual drive is heterosexual?	1	2	3	4	5	6	7
4. How much of your sexual drive is homosexual?	1	2	3	4	5	6	7
5. How sexually aroused are you by pornographic pictures?	1	2	3	4	5	6	7
6. How disgusted are you by pornographic pictures?	1	2	3	4	5	6	7
7. How much do you like to look at pornographic pictures?	1	2	3	4	5	6	7

Instruction face sheet for Other Scale

INSTRUCTIONS

Please fill in one questionnaire sheet for each of the five photographs in this packet.

Try to do this part in 10 minutes.

Please record the time now: \_\_\_\_\_

OTHER SCALE

Fill in: In response to photograph number \_\_\_\_\_.

	Very little			Moderately			Very much
1. How much sexual drive does this man have?	1	2	3	4	5	6	7
2. How inhibited is this man about sex?	1	2	3	4	5	6	7
3. How much of this man's sexual drive is heterosexual?	1	2	3	4	5	6	7
4. How much of this man's sexual drive is homosexual?	1	2	3	4	5	6	7
5. How sexually aroused is this man by pornographic pictures?	1	2	3	4	5	6	7
6. How disgusted is this man by pornographic pictures?	1	2	3	4	5	6	7
7. How much does this man like to look at pornographic pictures?	1	2	3	4	5	6	7
8. How much do you dislike this man?	1	2	3	4	5	6	7

The time on the clock is now \_\_\_\_\_.

Instruction sheet with pornographic materials

## INSTRUCTIONS

In this packet are photographs of men engaged in homosexual relations.

Please do look at these pictures for at least 10 full minutes--do not avoid looking at them.

Allow yourself to feel whatever you want to--whether disgust, sexual stimulation, boredom, anxiety, or fascination--whatever comes to you in response to these pictures.

The purpose of this part is to see how looking at such pictures will influence your ratings of men's photographs.

Record the time on the clock now: \_\_\_\_\_.

AROUSAL SCALE

	Very little			Moderate			Very much
1. How sexually aroused do you feel right now?	1	2	3	4	5	6	7
2. How much of any sexual feelings you have right now is heterosexual?	1	2	3	4	5	6	7
3. How much of any sexual feelings you have right now is homosexual?	1	2	3	4	5	6	7
5. How much did you like looking at the pictures?	1	2	3	4	5	6	7
6. Have you ever seen this kind of pictures before?	1	2	3	4	5	6	7

Please record the time on the clock now: \_\_\_\_\_.

Please use the space below to write any reactions to this experiment or to any part of it:

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