12-1-1995

Changing Attitudes Toward Lesbian Women and Gay Men Through Self-Confrontation

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CHANGING ATTITUDES TOWARD LESBIAN WOMEN AND GAY MEN THROUGH SELF-CONFRONTATION

by

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota
December
1995

795
386

This dissertation, submitted by Sally A. Kennedy in partial fulfillment of the requirements for the degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

(Chairperson)

This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

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ACKNOWLEDGEMENTS

I would like to express sincere appreciation to the members of my Faculty Advisory Committee: Dr. George Henly, Dr. Chuck Barkè, Dr. Denise Twohey, Dr. Cliff Staples, and Dr. Jim Antes. Their encouragement and support throughout the dissertation process was invaluable. I am particularly grateful to my Committee Chairperson, Dr. George Henly, for his expertise, guidance, attention to detail, and patience. In addition, special thanks are due Dr. Sue Henly for her generous assistance with statistical analyses.

Most of all, I owe the completion of this project to family and friends, whose love and support sustain me. What a wonderful gift.

ABSTRACT

Prejudice against lesbian women and gay men is widespread. Intolerance ranges from negative beliefs to exclusion from mainstream society, denial of civil rights and legal protection, as well as harassment and physical violence. Furthermore, it is socially acceptable to hold negative attitudes toward this group. There is no condemnation for doing so, unlike the case with racism. Given the extent of oppression faced by lesbians and gay men, research on attitude change is critical.

This study explored the characteristics of college students that contribute to negative attitudes toward lesbians and gay men, and investigated whether Rokeach's method of self-confrontation is a useful intervention for attitude change. Students (N = 293) from introductory sociology classes comprised norm, experimental, and control groups. The following instruments were used in pretest and posttest conditions: the Rokeach Value Survey (RVS), the Attitudes Toward Lesbians and Gay Men (ATLG) Scale, three questions to assess the amount and type (positive or negative) of contact with lesbians and gay men, and a demographic questionnaire. The experimental group

intervention consisted of a modified version of the method of self-confrontation.

Multiple regression analysis showed that the following factors contributed to attitudes toward lesbians and gay men: size of home town, positive contact, negative contact, and the RVS value Equality. Results of LISREL path analysis showed statistically significant treatment effects. Attitudes changed in the desired direction; however, the method of self-confrontation was not supported, as attitude change did not coincide with value change. The positive change in attitudes toward lesbian women and gay men was interpreted in terms of the effects of analyzing reasons for attitude change and the moderating role of attitude accessibility.

CHAPTER I

INTRODUCTION

Psychological research concerning lesbian women and gay en has undergone a transformation during the past two ecades. Prior to 1970, a psychopathological model was ssumed, which dominated the research and theoretical iterature. This organism deficiency perspective eventually ave way to investigating negative attitudes toward lesbians nd gays, as well as attention to the effects such attitudes ave on their well-being.

During the 1970s and 1980s, considerable research was conducted to develop scales measuring (negative) attitudes toward lesbian women and gay men. Along with these efforts came a trend toward determining correlates of anti-lesbian/gay prejudice. However, little research has met the challenge of investigating ways in which negative attitudes might be changed (Plasek & Allard, 1984; Herek, 1988). Herek (1988) stated that "attitude-change research is a critical priority, given the extreme prejudice faced by gay men and lesbians" (p. 473).

Responding to the challenge to conduct attitude change research, this project begins with a review of the literature regarding anti-lesbian/gay prejudice (including

the construct of "homophobia"), its correlates and etiology, and previous efforts to change negative attitudes. Next is a review of attitude theory and measurement, and the relationship of attitudes and values. This is followed by a detailed description of Rokeach's (1968, 1973, 1979, 1984, 1985) belief system theory of stability and change in personality. Finally, a self-confrontation method of value change is described (Rokeach, 1973, 1979; Ball-Rokeach, Rokeach, & Grube, 1984), which was adapted for the present investigation into attitude change toward lesbians and gays.

The purpose of this research was two-fold: to investigate the characteristics of college students that contribute to negative attitudes toward lesbian women and gay men; and to determine if Rokeach's (Ball-Rokeach, Rokeach & Grube, 1984; Rokeach, 1973) method of self-confrontation is a useful intervention for attitude change specific to anti-lesbian/gay prejudice.

The following hypotheses were proposed:

1. The demographic characteristics of sex, age, size of home town, type of previous contact with lesbians and gay men, and the values Equality, Freedom, and Wisdom influence students' attitudes toward lesbians and gay men.

2. Attitudes can be experimentally affected through confronting individuals with possible inconsistencies between their values and attitudes.

3. Changes in ranking of values following self-confrontation will result in changes in attitudes, thereby reducing anti-lesbian/gay prejudice.

Trends in Research Regarding Lesbian Women and Gay Men

Until the early 1970s, the psychological literature pertaining to homosexuality and homosexuals focused on models of deviance and psychopathology (Britton, 1990; Smith, 1971). Psychological research, dominated by the sickness or organism deficiency model, attempted to answer the question, "What are the 'defects' in the personalities of lesbian women and gay men?" However, investigations repeatedly demonstrated negative findings regarding abnormality (MacDonald, Huggins, Young, & Swanson, 1973). Subsequently, a body of empirical and theoretical inquiry focusing on victim analysis addressed problems faced by individuals as a consequence of their homosexual orientation (Bohn, 1984; Gonsiorek & Weinrich, 1991; Herek, 1991; Schoenberg & Goldberg, 1984).

Recent trends in psychological research incorporate a social deficiency model, spotlighting the negative, repressive, and fearful responding by members of society toward lesbians and gays (MacDonald & Games, 1974; Hudson & Ricketts, 1980). Thus, victim analysis is being replaced by examination of damaging social systems that negatively influence the lives of gay men, lesbians, and their friends

and families. Efforts to understand the correlates and causes of negative attitudes toward lesbian women and gay men represent a prominent shift in the research questions psychologists are addressing. The new question is: "What are the effects of the heterosexual majority on the homosexual minority?" (Herek, 1984b).

Public Beliefs and Attitudes

Prejudice against lesbian women and gay men is widespread, and ranges from negative beliefs to exclusion from mainstream society, denial of civil rights and legal protection, as well as harassment and overt acts of physical violence (Blumenfeld, 1992; Bohn, T.R., 1984; Herek, 1988, 1989; Pharr, 1988). Disclosure of same-gender orientation often results in (legally sanctioned) discrimination in employment, housing and public accommodations, loss of child custody, and personal rejection by family, friends, and colleagues (Bohn, T.R., 1984; Haaga, 1991; Herek, 1988). Furthermore, negative attitudes of lesbians and gay men toward themselves (internalized homophobia) is psychologically damaging (Blumenfeld, 1992; Sophia, 1987). In America today, it is socially acceptable (and people are encouraged) to endorse anti-lesbian/gay attitudes. There is no condemnation for doing so, unlike the case with racism (Haaga, 1991).

Understanding public attitudes and perceptions about lesbians and gays has important implications for changing

prejudicial attitudes. The results of a public opinion survey conducted during the 1960s found homosexuals rated as the third most dangerous group of people in the United States, outranked only by communists and atheists (Wilson, Strong, Clarke, & Johns, 1977; cited in Aguero, Bloch, & Byrne, 1984). Levitt and Klassen (1974) found a consensus among the general public that gay men should not be allowed into professions of influence and authority (minister, school teacher, judge, physician, government official), as well as the extreme view that homosexuality (as a corruption of society) can cause a civilization's downfall.

The survey by Levitt & Klassen (1974) was one of the first nation-wide investigations of public attitudes toward homosexuals, conducted as part of a 1970 national survey by the Institute for Sex Research. Inquiry into moral attitudes toward various sexual behaviors revealed not only that sexual relations between same-sex persons (regardless of their relationship) were considered wrong by a greater number than were premarital heterosexual relations, but also that the public had difficulty recognizing that love can exist between persons of the same sex. Furthermore, homosexuals were stereotyped as acting like the opposite sex, fearing the opposite sex, and having unusually strong sex drives (Levitt & Klassen, 1974). The widespread misconceptions and fear appear to be justification for

societal restrictions of freedoms that heterosexuals take for granted, ranging from opposition to organizing for social and recreational purposes to legal controls and criminalization of sexual behavior.

Finally, Levitt's and Klaussen's inquiries about causes and cures revealed a prevailing public attitude that homosexuality was a sickness that could be cured, and that homosexuals could stop being homosexuals if they wanted to. The most popular conviction regarding causes was that young homosexuals became that way because of older homosexuals, followed by the beliefs that homosexuality was a result of being unable to attract members of the opposite sex, that homosexuals were products of how their parents raised them, and that they were simply born that way (Levitt & Klassen, 1974). Research by Nyberg and Alston (1976) supported Levitt's and Klassen's (1974) findings.

MacDonald (1976) identified the following convictions as determinants of anti-lesbian/gay prejudice: (a) *Sex for procreation*, or the belief, for religious and other reasons, that sex is only legitimate when it can lead to procreation. Related to this is the position that homosexuality should not be declared acceptable in order to assure the survival of the species. (b) *Unnatural acts*, which is related to the notion that the natural purpose of sex is for procreation. (c) *Religion*, based on interpretations of scriptures indicating divine proscriptions against homosexuality. (d)

Child abuse, or the belief that homosexuals (especially males) seduce and corrupt the young. (e) *Psychopathology*, or the belief that homosexuals are mentally ill. (f) *Sexual conservatism*, or the belief that genital copulation is the only decent form of sexual behavior. (g) *Promiscuity*, or the opposition to people having numerous sexual encounters along with the belief that homosexuals are more promiscuous than heterosexuals. (h) *Obedience/conformity*, because society has made it clear that homosexual behavior is taboo and that social prescriptions and proscriptions must be followed. (i) *Sex role confusion*, or the need to preserve the double standard between the sexes, adhering to "proper" differential behaviors and mannerisms between the sexes (the need to keep males masculine and females feminine is a powerful determinant of attitudes toward homosexuals).

In summary, anti-lesbian/gay prejudice is manifested in a wide range of behaviors, from verbal expressions of dislike to violent attacks. Discrimination in employment, housing, and public accommodations remains legal (Herek, 1988). In nearly one-half of the 50 states, it is illegal for consenting adults of the same sex to engage in private sexual relations. Lesbian and gay parents are often accused of being unfit parents despite extensive evidence to the contrary, and often lose custody of their children. Finally, disclosing one's lesbian or gay orientation carries with it the additional risk of rejection by family, friends,

nd colleagues. Clearly, freedoms that are highly valued in ur society are not accorded to lesbian women and gay men.

he Construct of "Homophobia"

The construct that describes negative beliefs, ttitudes, or behaviors toward lesbians and gay men has been ariously termed *homoerotophobia* (Churchill, 1968), *omophobia* (Smith, 1971; Weinberg, 1972), *homosexphobia* (Levitt & Klassen, 1974), *heterosexism* (Lehne, 1976), *omosexism* (Morin & Garfinkle, 1978), and *homonegativism* (Hudson & Ricketts, 1980). These various terms and definitions reflect the multiple theoretical assumptions and political orientations that have characterized the literature on this topic. Because precision in terminology is lacking, a more precise definition of the construct is currently being debated in the literature (Blumenfeld, 1992). Whether or not it is the most accurate term, "homophobia" has prevailed as the most commonly used label for any sort of stereotyping or negative attributions of gay and lesbian people (Falco, 1991).

In 1967, George Weinberg was the first to define negative attitudes toward lesbians and gay men with the construct *homophobia*: an irrational revulsion and condemnation of homosexuals resulting in not only fear of being in close quarters with lesbians and gay men, but also in antagonism, violence, deprivation, and separation

(Weinberg, 1972). This fear of homosexuality is postulated to originate from learning experiences early in life that influence belief systems and attitudinal or affect systems (Aguero, Bloch, & Byrne, 1984).

Pattison (1974) criticized Weinberg's original conceptualization of homophobia as a classic phobia. He argued that many of the negative responses to lesbians and gays are "ego-alien" ("not me") rather than phobic manifestations of fear, anxiety, hostility, and so forth. MacDonald (1976) pointed out that the term homophobia has a much broader meaning than what a phobia implies (i.e., an irrational persistent fear or dread). The evoked emotion may be fear, as well as anxiety, disgust, or anger, among other negative reaction toward lesbians and gay men. Despite such criticisms, the term homophobia has been generalized to refer to negative valuations and emotional reactions to lesbians and gays and homosexuality. Because a phobia or fear explanation does not account for all of the negative beliefs, attitudes and behaviors toward lesbians and gay men, the clinical origin of the term *phobia* inhibits inquiry into people's socialization to conform to the prevailing standards for "proper" behavior (MacDonald, 1976). Fyfe (1983) agreed that a broad usage of the concept homophobia may restrict more worthwhile inquiry into the possible sources of homosexual bias.

Haaga (1991) supported the claim that using the broad term homophobia may be counterproductive. Whereas a phobia refers to an intense, illogical, or abnormal fear of a specified thing, the word homophobia does not accurately represent the unfounded beliefs, negative attitudes and aggressive behavior directed toward lesbians and gay men. As typically used, the meaning of homophobia is more similar to a prejudice than a phobia. Haaga (1991) contrasted the meanings of phobia and prejudice in the following ways: (a) The emotional component of a phobia is anxiety, whereas that of prejudice and homophobia is anger. (b) Phobia includes seeing one's fears as excessive or unreasonable, whereas prejudice and homophobia usually involve seeing one's anger as justified. (c) The dysfunctional behavior involved in a phobia is avoidance, whereas in prejudice and homophobia it is aggression. (d) People with phobias generally have no political agenda (e.g., flying phobics do not protest the availability of flights), whereas prejudice and homophobia are linked with discrimination against targets. (e) Finally, phobic individuals are *themselves* motivated to change their malady, whereas efforts to reduce prejudice and homophobia come from people victimized by those who hold anti-lesbian/gay attitudes.

The nature of negative beliefs, attitudes and behaviors toward lesbian women and gay men needs to be clearly delineated. Haaga (1991) stated that the use of exact

terminology is a critically important issue, given the anger, hostility, and aggression toward lesbian women and gay men. Research into its causes and cures might be facilitated by "redescribing this emotional-attitude-action cluster as 'anti-homosexual prejudice,' 'anti-homosexual bias,' or perhaps simply 'prejudice against homosexuals'" (Haaga, 1991, p. 173). Blumenfeld (1992) concurred that the term homophobia does not precisely convey the true and complete extent of oppression based on sexual orientation or identity. Thus, for clarity during this research, the expressions anti-lesbian/gay prejudice or negative attitudes toward lesbian women and gay men will be used instead of the term homophobia.

Correlates of Anti-Lesbian/Gay Prejudice

Most societies, past and present, have disapproved of any form of homosexuality. Psychological research is replete with variables shown to be related to negative responses to lesbian women and gay men. Smith's (1971) inquiry was one of the first to study societal beliefs, attitudes and behaviors that contribute to the hardships faced by lesbians and gay men. He found the following characteristics associated with anti-lesbian/gay prejudice: authoritarianism, sexual rigidity, and status consciousness. On the other hand, Nyberg and Alston (1976) found that people having favorable attitudes were under the age of 30, resided in larger urban centers, and had more education.

A number of studies emphasize that non-support for equality between the sexes and the belief that males and females should maintain separate and traditional gender roles are related to negative attitudes toward homosexuality (Black & Stevenson, 1984; MacDonald, Huggins, Young, & Swanson, 1972; Morin & Garfinkle, 1978; Pharr, 1988). Research by MacDonald and Games (1974) advanced a sex-role confusion hypothesis, maintaining that deviation from the traditional sex role leads to confusion in an otherwise ordered reality. Other characteristics of those who hold anti-lesbian/gay prejudice include intolerance of ambiguity, cognitive rigidity (elements of the authoritarian personality), and conservative sex morality (MacDonald & Games, 1974).

In an investigation undertaken to identify yet additional correlates of anti-lesbian/gay prejudice, Minnigerode (1976) examined attitudes toward women, sexual conservatism, and gender role stereotyping. It was found that nonfeminist attitudes and sexual conservativism independently contributed to anti-lesbian/gay attitudes, and that psychological androgyny did not. Black and Stevenson (1984) found significant relationships between attitudes toward lesbians and gay men and cross-gender traits. Females with more instrumental ("masculine") characteristics were more accepting of than those with expressive ("feminine") traits, whereas males with more expressive

haracteristics were more rejecting than males with more nstrumental traits. Devlin and Cowan (1985) demonstrated hat anti-lesbian/gay prejudice is related to a strong raditional view of the male gender role and to conservatism n general.

Weinberger and Millham (1979) found that the differentiation between masculinity and femininity, rather than beliefs concerning sexual equality, was an important component of attitudes toward lesbians and gay men. Additionally, Lieblich's and Friedman's (1985) research suggested that anti-lesbian/gay prejudice attempts to reserve the distinction between the sexes in society. inally, Devlin and Cowan (1985) stated that negative esponses to lesbian women and gay men are almost normative, articularly among males. Herek (1986) agreed that to be onsidered a 'man' in contemporary society is to be hostile oward gay men and lesbians. Pharr (1988) concurred, in her engthy expose, that anti-lesbian/gay prejudice is a weapon f sexism.

In 1983, Larsen, Cate, and Reed investigated the elationship of anti-black and orthodox religious attitudes o attitudes toward lesbian women and gay men. Anti-black ttitudes and religious fundamentalism were found to be ignificant predictors of negative attitudes toward lesbians nd gays. It was suggested that research on attitude change or other minorities may be applied toward gay men and

sbians, because negative attitudes toward them may be part a broader syndrome of attitudes toward minority groups.

In a study investigating the relationships among sexual liefs, attitudes, experience, and anti-lesbian/gay ejudice, Aguero, Bloch, and Byrne (1984) suggested the esence of two systems: one comprised of an affective ientation, and another dealing with general beliefs (e.g., ether or not same-gender sexual behavior is a learned oblem or a physiological problem). It was found that ose with the greatest dislike toward lesbians and gay men th responded with negative affect *and* believed that same-nder sexual behavior was a learned problem. Persons lding negative affect and the belief that same-gender xual behavior was due to genetic factors tended to avoid cial situations where lesbians and gays might be present.

Herek (1984a) proposed that hostility toward lesbians d gay men is motivated by a variety of factors that obably serve different functions for different people: mple fear, need for acceptance by members of a valued cial group, as a defense against unconscious conflicts, d the expression of negative social stereotypes. Herek's 988) research investigating correlates of and gender ferences in attitudes of non-lesbians/gays found that the ie social psychological variables appear to underlie both .es' and females' attitudes toward both gay men and

lesbians: religiosity, adherence to traditional ideologies of family and gender, perception of friends' agreement with one's own attitudes, and past interactions with lesbians and gay men.

In a review of the empirical research, Herek (1991) found that the attitudes of non-lesbians/gays toward lesbians and gay men are consistently correlated with various psychological, social, and demographic variables. In contrast to non-lesbians/gays with favorable attitudes, those with negative attitudes are:

1. more likely to express traditional, restrictive attitudes about gender roles;

2. less likely to report having themselves engaged in homosexual behaviors or to self-identify as lesbian or gay;

3. more likely to perceive their peers as manifesting negative attitudes;

4. less likely to have had personal contact with gay men or lesbians;

5. likely to be older and less well educated;

6. more likely to have resided in areas where negative attitudes represent the norm (e.g., rural areas, the midwestern and southern states);

7. more likely to be strongly religious and to subscribe to a conservative religious ideology;

8. more likely to manifest higher levels of prejudice toward gay men if a heterosexual male than a heterosexual female;

9. more likely to score higher on measures of authoritarianism (expressing intolerant attitudes toward a variety of outgroups).

Overview of Attitudes, Values and Beliefs

The concepts of *attitude, value* and *belief* are psychological constructs, or hypothetical entities that are inferred from their consequences rather than observed directly. As a result of observations and inferences, information about mental states and processes is accumulated. Thus, psychological constructs must be measurable by some means in order to be useful. Accordingly, it is important to differentiate *attitude* from the constructs *belief, value,* and *behavior* (Mueller, 1986).

Definition of Attitudes

As a psychological construct, *attitude* requires a precise and unambiguous definition to specify its distinctiveness from, as well as its similarity to, related constructs (Mueller, 1986). However, there is no universally agreed-upon definition of the construct (Eagly & Chaiken, 1993; Olson & Zanna, 1993). Within the long tradition of social psychological research on attitudes, the variety of definitions presume specific models that dominated psychological theory of the day.

History of attitude definitions. Thurstone's (1928) interest in measuring attitudes provided one of the first definitions: "the sum total of a man's inclinations and feelings, prejudices and bias, preconceived notions, ideas, fears, threats, and convictions about any specific topic" (p. 531). Thurstone simplified this complex definition of attitude as "affect for or against a psychological object" (1931, p. 261). In 1946, Thurstone offered a final definition: "the intensity of positive or negative affect for or against a psychological object" (p. 39).

Gordon Allport (1935) also pioneered attitude research, claiming that the attitude construct was fundamental and unique to the field of social psychology. He defined attitude as "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related" (Allport, 1935, p. 810). Doob (1947) incorporated Hullian learning theory concepts, such as gradients of generalization and discrimination, to analyze and define attitudes as learned, implicit anticipatory responses. Campbell (1963) regarded attitude as an acquired behavioral disposition, as did Triandis (1971), who endorsed behavioral predispositions as central to the attitude construct: "a state of a person that predisposes a favorable or unfavorable response to an object, person, or idea" (p. 485).

There is substantial agreement that affect for or against is a critical component of the attitude concept. In a review of the literature, Mueller (1986) adopts Thurstone's (1928; 1946) definition of attitude: "the intensity of positive or negative affect for or against a psychological object" (p. 39). Specifically, attitude is (a) affect for or against, (b) evaluation of, (c) like or dislike of, or (d) positiveness or negativeness toward a psychological object (Mueller, 1986).

The many definitions of attitude include a reference to behavior or to a tendency or "set" to respond or to behave in a certain manner. However, attitude theorists have been uncertain whether to incorporate a reference to behavior or response set in the definition of attitude. Mueller (1986) argued that behavior and attitude are separate psychological phenomena. While under certain conditions they are highly related, they are not always, and should not be expected to be related. Hence, it is inappropriate to include one in the definition of the other.

However, statements about tendency to behave or set to respond can be used as indices of attitude (Mueller, 1986). Whether attitude does or does not predict behavior (in specific social situations) is an important research question which can be addressed by testing directly the relationship of attitude to actual behavior. Although attitude is a complex and multidimensional construct, most

instruments (measurement techniques developed by Thurstone, Likert, Bogardus, Guttman, and Osgood) use the simple, one-dimensional definition proposed by Thurstone. Mueller (1986) points out that unfortunately, in the realm of attitude, measurement and theory have developed somewhat independently.

More recently, Zanna and Rempel (1988) framed their definition of attitude in terms of a cognitive process that categorizes an entity by assigning some degree of evaluation. Kruglanski (1989) also emphasized the cognitive component of attitude in his definition, "a special type of knowledge, notably knowledge of which content is evaluative or affective" (p. 139). Fazio (1986, 1989) employed an associative learning model in his definition of attitude as an association in memory between an attitude object and an evaluation. Finally, breaking away from the emphasis on cognitive psychology and focusing on affect, Greenwald (1989) regarded attitude as "the affect associated with a mental object" (p. 432).

In summary, given the common, everyday usage of the word attitude, combined with various theoretical formulations from social psychology, a universal definition has been equivocal. However, there is general agreement that attitudes are evaluative in nature, indicating affect for or against some object (Mueller, 1986).

Eagly's and Chaiken's psychology of attitudes. In their comprehensive review and analysis of the attitude literature, Eagly and Chaiken (1993) emphasized that the evaluative component is central to the attitude construct. Their definition is the following: "Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" (Eagly & Chaiken, 1993, p. 1). Claiming that the many definitions of attitude appeal to specific psychological models that run the risk of going out of style, the authors advocate their more general and abstract definition that is more apt to endure.

To clarify the components of their definition, Eagly and Chaiken (1993) referred to psychological tendency as the internal state that an individual is experiencing, a type of bias predisposing a person to respond in a particular evaluative manner. This tendency may be learned or unlearned, relatively enduring or changeable, and important or unimportant to the people who hold them.

The second component of Eagly's and Chaiken's (1993) definition referred to attitudes as evaluative responses that may or may not be elicited. Evaluation, which attributes some degree of goodness or badness to an entity, is expressed through approval or disapproval, liking or disliking, approach or avoidance, and so forth. Such responses may be affective, cognitive and behavioral, as

well as overt or covert. Social scientists often represent evaluative responses on a bipolar continuum of both valence and intensity, that ranges from extremely positive to extremely negative, with a reference point of neutrality. Research has shown that behavior can be predicted based on knowledge of the evaluative meaning assigned to an entity, and that much of the meaning that people ascribe to entities in their environment is evaluative in nature (Eagly & Chaiken, 1993).

The third component of Eagly's and Chaiken's (1993) definition of attitude refers to an entity, or attitude object, that provides the stimuli which elicit the evaluative responses that follow from the attitude. Anything discriminable can be evaluated, whether the attitude objects are abstract or concrete, or refer to behaviors. Attitude objects most frequently examined by social scientists include social policies, ideologies, and social groups. Thus, an individual is inferred to hold an attitude when a class of stimuli that denote a given attitude object covaries with the individual's responses that express a given degree of evaluation (Eagly & Chaiken, 1993).

Eagly and Chaiken (1993) maintained that an attitude does not develop until a person responds to an object in an evaluative way. Responses may be overt or covert, and are internalized as a psychological tendency resulting in a

response bias or attitude that is formed about the object. Types of attitudes specific to people include prejudice, or attitudes toward minority groups; interpersonal attraction, or attitudes toward a specific person; and self-esteem, or attitudes toward one's self (Eagly & Chaiken, 1993). Representations of the attitude may then be stored in memory as a type of knowledge structure, such as a schema, or as an associative network (Eagly & Chaiken, 1993; Olson & Zanna, 1993).

Evaluative responses which signify attitude may be divided into three general classes: affective, behavioral, and cognitive (Eagly & Chaiken, 1993; Olson & Zanna, 1993; Mueller, 1986). Affective evaluative responses include feelings, emotions, and moods that are experienced when an attitude object is encountered. Affective responses also include sympathetic nervous system activity. Behavioral evaluative responses refer to overt actions or intentions to act, which arise from exposure to an attitude object. Finally, cognitive evaluative responses, or beliefs, comprise overt or covert thoughts and ideas regarding an attitude object (Eagly & Chaiken, 1993).

Human beings evaluate just about everything with which they come into contact. Attitudes constitute an immensely important component in the human psyche. They strongly influence all of our decisions: the friends we pick, the jobs we take, the movies we see, etc. We choose the things

we choose, to a large extent, because we *like* them (Mueller, 1986).

The relation of attitudes to beliefs. Some theorists stress the importance of *beliefs* in their conceptualization of attitude. Newcomb called attitudes "stored cognitions that have some positive or negative associations" (Newcomb, Turner, & Converse, 1965, p. 40). Our beliefs about things affect the way we feel about them (for example, we like people who have many good qualities). Furthermore, our beliefs are influenced by our attitudes (for example, the tendency to more readily believe positive information about persons we like than about persons we don't like) (Mueller, 1986).

The reciprocal relationship between cognition and affect is useful in the measurement of attitude. Attitude measures can ask both how respondents *feel* about a particular object, as well as ask what they *believe*. Belief statements almost always contain an affective component (Ball-Rokeach, 1984; Mueller, 1986; Rokeach, 1973). A respondent with many positive beliefs and only a few negative beliefs is judged to have a positive attitude. One with many negative beliefs and few positive ones has a negative attitude. According to Mueller (1986) attitude measurement techniques developed by Thurstone, Likert, and Guttman are really just systematic methods of abstracting

the affective component of belief statements to effect an attitude score (Mueller, 1986).

Works by Rosenberg (1956) and Fishbein (1967a, 1967b) use mathematical equations to explain the relative contribution of each belief about an attitudinal object to attitude toward that object. The two major elements in these equations are (a) the magnitude of the particular value associated with the attitudinal object in each belief statement and (b) the extent to which the statement is believed (i.e., the extent to which the attitudinal object is believed to be associated with that value).

The relation of attitudes and behaviors. Mueller (1986) stated that a causal model, with attitude toward an object causing behaviors toward the object, is a basically correct model. But attitude is only one of many causes of behavior. A variety of values, other attitudes, and situational variables frequently cause people to behave in opposition to their attitudes (additionally, two attitudinal positions may be in direct conflict).

Situational variables have been used to explain the discrepancies between attitude and overt behavior toward an object. Situational variables, such as social pressures, actual behavioral options, economic circumstances, and the effects of competing values and conflicting attitudes, frequently cause people to act in violation of their attitudinal preferences (Mueller, 1986).

Attitude measures predict behavior patterns better than they predict isolated behaviors. Tittle and Hill (1967; cited in Mueller, 1986) demonstrated that the relationships between attitude-scale scores and behavior-scale scores were directly proportional to the number of behaviors measured. They also noted that predictive validity tended to be greater when behavioral criteria involved normal (usual) life behavioral choices rather than atypical or contrived experimental behaviors. Each behavior is caused by a complex interaction of attitudes, values, and situational variables. These must all be entered into the prediction equation in order for accurate prediction of a single behavior to result (Mueller, 1986).

Dissimilarity of attitudinal and behavioral objects. The problem of behavioral objects that are different from attitudinal objects is fairly common in studies attempting to predict behavior (Mueller, 1986). Attitudinal beliefs may refer to a variety of presumed social consequences, whereas the behavioral decision is based upon presumed personal consequences.

Fishbein and Ajzen (1975) have developed a model for the prediction of behavior within the realm of attitude theory. They proposed that a behavior can be predicted quite well from a measure of a person's *intention* to perform (or not to perform) that behavior. Further, the closer the intention measurement is to the time of the behavior, the

better will be the prediction (Fishbein & Ajzen, 1975). The origins of intention derive from the subjects' attitude toward the behavior and in terms of situational variables that (may) interfere with the execution of one's intention. These they called *subjective norms*.

In sum, attitude measures are not always good predictors of behavior. Conversely, behaviors are not always good indicators of attitude. The reliability and validity of both the attitude measure and the behavioral measure must be ascertained, particularly if an attitude measure is found not to correlate highly with an index of behavior toward a particular object.

Theories of Attitude Formation and Change

A number of theories have been proposed regarding the development of attitudes as well as attitude change (see Eagly and Chaiken, 1993, for a review). Katz (1960) classified attitudes according to one of four functions: the instrumental, adjustive, or utilitarian function; the ego-defensive function; the value expressive function; and the knowledge function.

The adjustive function is similar to behavioral learning principles. The basic premise is that individuals will attempt to maximize rewards and minimize penalties. Thus, positive attitudes develop toward objects which enable individuals to obtain rewards, and negative attitudes develop toward objects perceived to facilitate negative

outcomes. The term adjustive is used to signify the role of these attitudes in achieving a specific goal or avoiding an undesirable one.

The ego-defensive function incorporates Freudian and neo-Freudian concepts. Katz (1960) proposed that such attitudes serve as a defense of the individual's self-image and protect the ego from threatening impulses or information. For example, a person may feel superior to a minority group in order to cover up core feelings of insecurity. Ego-defensive attitudes are fundamentally different from adjustive attitudes in that they originate within the individual. The object to which the attitude is directed does not have any immediate connection, but is simply an available outlet for threatening feelings.

Attitudes that function to promote positive expression of core values and enhancement of self-image are termed value-expressive functions (Katz, 1960). The expression of attitudes congruent with a person's beliefs and values aid in the establishment of a stable self-identity through confirmation of the person's self-perceived image. In addition, value expressive attitudes can serve as ideals to shape an individual and aid in life direction.

The final function that an attitude may serve is one of knowledge acquisition. Katz (1960) defined the knowledge function by its ability to supply meaning and order to an otherwise confusing and incomprehensible reality. He

suggested that individuals require standards or frames of reference to organize and interpret the world in which they live. Attitudes are one source for these standards. Attitudes that serve the knowledge function not only supply meaning but are also characterized as malleable. Thus, when information is encountered that is inconsistent with the current attitude structure, modification and reorganization takes place.

Cognitive theories. A more contemporary theory describes attitudes in terms of associative networks, popularized by cognitive psychologists attempting to understand memory (Fazio, 1986). Fazio defined attitudes in terms of association between an object and an evaluation. In associative network terms, a concept or node is both the attitude object and the positive or negative evaluation. When the attitude is stored in long-term memory, an associative link is believed to have formed between the object and the evaluation. As explained by Eagly and Chaiken (1993), "an attitude is a proposition stored in the same form in which other propositions are stored and presumably following the same laws of memory that other propositions follow" (p. 102).

An important aspect of this theory is the assumption that, as in memory, the links between nodes within an associative network are strengthened when the linked nodes are activated. In addition, activation of linked nodes is

believed to spread, causing other linked nodes also to activate. This suggests that activation of one attitude may lead to activation of strongly held attitudes that are linked to similar beliefs, and which may then be retrieved into awareness (Eagly & Chaiken, 1993; Olson & Zanna, 1993).

Another body of research explored the effect of analyzing reasons for attitudes. It has been found that when subjects are asked to explain why they feel the way they do, there is often at least a temporary attitude change (Eagly & Chaiken, 1993; Hodges & Wilson, 1993; Olson & Zanna, 1993). This is consistent with Bem's (1972) self-perception theory, which suggests that people caught in ambiguous situations, where internal cues are weak, will infer information based on overt external behavior. Thus, an individual asked to explain or provide a reasonable explanation for an attitude she or he holds will draw on external cues (behavior) to explain the internal ambiguity. If the attitude is inconsistent with the external cue, an attitude change may occur. In addition, the attitude change will be somewhat contingent on the extent to which the individual believes the reasons given (external cues) accurately reflects the internal state.

However, Hodges and Wilson (1993) hypothesized that attitude accessibility was a moderating factor on the effect of analyzing reason on attitude change. They suggested that individuals with highly accessible attitudes would be less

likely to use reason as a basis for their attitudes, and would thus experience less attitude change if asked to explain the reason for an attitude they hold. The basic premise for the moderating effect of accessibility is the suggestion that more accessible attitudes have been stored in memory, are easily activated and exert more influence on evaluation than analytical reason. In other words, accessible attitudes are more salient and therefore less likely to change with reasoning.

To test their hypothesis, Hodges and Wilson (1993) conducted interviews assessing people's attitudes toward Ronald Reagan. Each subject's attitude was first assessed by completing an attitude accessibility test via computer. Accessibility was defined by response time. Several weeks later, subjects were telephoned and once more attitudes toward Ronald Reagan were assessed. Half of the participants were asked to give reasons for their attitude, the other half were not.

Results indicated that accessibility did have a moderating effect on the impact of analyzing reason on the stability of attitudes. Subjects with less accessible attitudes had a significant decrease in attitude stability when asked to analyze reasons for the attitude, whereas subjects with more accessible attitudes showed no significant effect. This research suggests that "People with inaccessible attitudes changed their attitudes after

thinking about reasons, whereas people with accessible attitudes did not" (Hodges & Wilson, 1993, p. 361).

Some theorists have proposed that the way an individual perceives an event is influenced by the cognitive structures held by that individual: the schemas, scripts, and attitudes which provide an interpretive framework of the social environment (Houston & Fazio, 1989). By so doing, attitudes may provide biased interpretation and thus prime individuals to see, think or feel a certain way.

The possibility that attitudes bias processing was proposed by Fazio (1986) in his attitude-to-behavior process model. As stated previously, Fazio conceptualized an attitude as a simple memory association between an object and an evaluation. He suggested that the strength of the association may vary and that the stronger the association the more highly accessible the attitude.

Given that attitudes bias perception, the logical conclusion is that stronger association leads to selective processing of information. In other words, the stronger the association between the object and the evaluation (the stronger one's attitude toward an object) the more likely the association (attitude) is to be activated and the more likely the result will lead to selective information processing. This selective attention may lead to a preference for attitude consistent evaluation and judgment of information (Fazio, 1986).

Houston and Fazio (1989) conducted research looking at the bias processing effect of accessibility on attitudinal information. In their two-part experiment, participants were first presented with 15 current public issues on a computer screen and told to rate each issue on a five point favorability scale. Response latency was recorded and used as a measure of accessibility of the attitude toward each issue. Participants were then presented with a description and critique of a study that investigated one of the 15 issues on the list (capital punishment). After reading each summary, subjects were asked to evaluate the study with regard to how well conducted the study was and how convincing the conclusions were.

Analysis of the data produced significant positive correlations suggesting that the more favorable the attitude to begin with, the more likely the subjects were to endorse favorable information in judging the descriptive study. In addition, Houston and Fazio (1989) found stronger correlations among those with high-accessible attitudes, as defined by response time to the original presentation of the material. Based on this research, they suggested that "relatively accessible attitudes can reinforce themselves through selective, attitude-influenced processing of relevant information" (p. 64).

Behavioral theories. Attitude formation and change has also been conceptualized in terms of both operant and

classical conditioning. Theories based on operant conditioning are founded on Skinner's concept of verbal learning and are governed by the principle of reinforcement, specifically, social reinforcement.

A classic study by Hildum and Brown (1956) involved subjects who were contacted by phone and asked a series of questions regarding a local university's policies. Subjects were divided into two groups, with one group receiving reinforcement for expressing positive attitudes and the other group receiving reinforcement for expressing negative attitudes. The two groups were further divided with half being reinforced with the word "good" and the other half being reinforced with the utterance "mm-hmm". Results demonstrated an increase in the responses conditioned with "good" but not with "mm-hmm", suggesting the effect of operant conditioning.

A number of mediating factors might explain these and similar results. Awareness of the response contingency, demand characteristics, and the possibility of higher-order cognitive conditioning effects have all been proposed. However, the operant conditioning paradigm remains a viable option for understanding attitude formation and change (Eagly & Chaiken, 1993; Olson & Zanna, 1993).

Classical conditioning has also been applied to the development of attitudes. Staats (1968, 1969) suggested that an individual is conditioned to the words "good" and

"bad" through repeated pairing with unconditioned stimuli such as physical punishment. In this view, the unconditioned stimuli consistently elicit either positive or negative reactions in the individual, resulting in first-order conditioning to the words "good" and "bad". These two words then become the unconditioned stimuli to other objects, resulting in higher-order conditioning of attitudes.

Attitude formation and change based on mere exposure has been investigated in relation to persuasion, consumer behavior, social interaction and prejudice (Eagly & Chaiken, 1993). Studies on persuasion focused on the repetition of the message (Cacioppo & Petty, 1985), whereas attraction research tends to focus on frequency of exposure heightening interpersonal appeal (Berscheid, 1985).

Zajonc (1968) hypothesized that repeated exposure to an object would increase the likelihood of developing a positive attitude. In a classic study, subjects were exposed to a set of stimuli presented at differing frequencies. The stimuli consisted of either nonsense words, meaningless "Chinese" characters, or yearbook photographs. Each set contained 12 objects presented for two seconds apiece. The number of exposures ranged from 25 times to no exposure of the stimulus objects. Subjects were informed that they would be tested on the ability to

pronounce the foreign word, learn a foreign character, or remember a visual image.

After presentation of the stimuli, the attitudes of the subjects toward objects were assessed by rating how "good" they believed the meaning of each nonsense word was, how good the "Chinese" character was, or how much they liked the person in the picture. Findings indicated that positive attitudes increased with repeated exposure to the stimulus.

Replication of Zajonc's (1968) research has provided consistent results. In 1989, Bornstein conducted a meta-analysis involving more than 200 studies investigating the mere exposure phenomenon. It was concluded that the effect was not only highly replicable, but also robust. Through the meta-analysis, Bornstein (1989a) identified potential moderating factors. For example, enhancement of attitudes tends to plateau after 10 to 20 presentations, the effect was larger with limited versus more long-term exposure, and long-term delay between exposure to the object had a larger effect than short-term delay. A compelling finding was the reliability of the mere exposure effect even when the stimulus was presented to a subject for a duration too small for conscious recognition. Bornsteins's (1989a, 1989b) results have initiated a resurgence of interest in the effects of subliminal messages.

Considerations for Attitude Measurement

Attitude toward an object does *not* consistently coincide with each and every behavioral instance toward that object. Nor is it reasonable to expect such an occurrence. People typically have "mixed" attitudes toward objects rather than "pure" (extreme or dogmatic) positive or negative attitudes. It seems obvious, then that they will have "mixed" (positive and negative) behaviors toward these same objects. Furthermore, it is clear that behaving within a particular situation involves contingencies that confound behavioral preferences and intentions (Mueller, 1986).

Positive attitude toward an object results from beliefs that the object is positively associated with the fulfillment of important values and/or from beliefs that the object is negatively associated with (or dissociated from) disvalued objects and concepts. Negative attitude, conversely, results from beliefs that the attitudinal object is dissociated from highly revered values and/or positively associated with disvalued objects and concepts. Hence, there is an interrelationship of beliefs, attitudes, and values (Mueller, 1986).

The Measurement of Attitudes Toward Lesbians and Gay Men

Smith's (1971) Homophobia Scale, or H-scale, launched the search for instruments to adequately measure the phenomenon of "homonegativism" or prejudice against lesbian women and gay men. This was followed by the development of

a number of additional including: the Heterosexual Attitudes toward Homosexuals (HATH) scale (Larsen, Reed, & Hoffman, 1980); the Homosexism Scale (Hansen, 1982); the Homophobic Scale (Aguero, Bloch, & Byrne, 1984); and the Social Distance Scale for Male and Female Homosexuals (Gentry, 1986, 1987). The following is a review of selected scales, including the instrument used in this study, the Attitudes Toward Lesbians and Gays (ATLG) scale.

The Homophobia Scale ("H-Scale"). Smith (1971) designed one of the first studies to investigate the contribution of societal attitudes to the problem of homosexuality. Specifically, Smith was interested in gathering information about the individual who is particularly negative or fearful regarding homosexuality, rather than focusing on the homosexual individual. That is, the research focused on those members of society whose attitude and behavior contribute to the difficulties homosexuals face, rather than on the victims. The study was designed to approach an aspect of the milieu or "system" by attempting to gather some information about the individual who is negative or fearful regarding homosexuality.

In order to measure negative or fearful responding to homosexuality, a nine item H-scale was constructed. A definition of the construct "homophobia" was not outlined. Smith's questionnaire consists of 24 items, nine of which comprise the Homophobia or "H-scale." The remaining 15

items sample opinions and attitudes on varied issues. A few of the items comprising the H-Scale include: Homosexuals should be locked up to protect society; It would be upsetting for me to find out I was alone with a homosexual; Homosexuals should be allowed to hold government positions; I find the thought of homosexual acts disgusting; I would be afraid for a child of mine to have a teacher who was a homosexual.

Each of the 24 items requires a response of either "yes" or "no". Of the nine items comprising the H-scale, seven are worded negatively (i.e., Homosexuals should be locked up to protect society), and two in a more positive direction (e.g., Homosexuals should be allowed to hold government positions; and A homosexual could be a good president of the United States.) Scores range from 0 to a maximum of 9 points. Non-homophobic groups are considered to be those who score below an approximate 25th percentile, and homophobic groups are those scoring above an approximate 25th percentile.

The remaining 15 items were used to compare male and female homophobics and nonhomophobics regarding various opinions and attitudes. No theoretical foundation for choice of these items was specified; however, they reflected a variety of attitudes such as chauvinism, materialism, religiosity, attitudes toward sex roles, and attitudes toward mental illness.

Regarding test construction and development, Smith 1971) did not specify how the 24-item questionnaire was levised. Questionnaires, which included age range, sex, cademic major, and religious affiliation, were distributed o 130 students in psychology classes. Students were asked o complete questionnaires at home ("to mitigate observer nfluence") and to return them the next day in class, with o further instructions. Ninety-three (77%) of the uestionnaires were returned. The author did not indicate he percentages of females and males completing the survey, or did he include additional demographic information egarding the sample. However, the author did test for ignificant differences between scores for men and women, ut he found none (he did not report the statistical rocedure used). Consequently, scores for men and women ere combined for each group (homophobic and nonhomophobic). o information regarding standardization/norming was rovided, and assessment of reliability and validity was not ncluded in his methodology.

Evidence for reliability and validity was not pecifically reported. However, tentative conclusions were rawn to present a working profile of the homophobic ersonality. Although not specified as evidence of onstruct validity, the author indicated that the homophobic ndividual was status conscious, authoritarian, sexually igid, and attracted to the nursing profession. It is

essential to note that this profile was based on 21 homophobic and 21 nonhomophobic individuals.

Lumby (1976) modified the H-Scale with the rationale that the psychological correlates of homophobia ("the dread of being in close quarters with homosexuals") are scant. Based on what Smith (1971) called a "homophobic scale," Lumby substituted a 5-point Likert index for Smith's yes/no answers. The rationale for doing this is the assumption that attitude strengths vary along a continuum, and that some people are genuinely undecided.

Index of Homophobia (IHP). Hudson and Ricketts (1977) developed the IHP to provide a dependable means for obtaining good measurements of the degree or magnitude of homophobia. Their rationale was that previous researchers focused on negative attitudes toward homosexuality rather than reactions to gay people, failing to distinguish between intellectual attitudes and personal affective responses. Items requiring evaluative responses to questions of legality, morality, or social desirability, are unsuitable for measuring emotional or affective responses. Hudson and Ricketts (1980) proposed the term *homonegativism* to refer to an entire domain of anti-gay responses which are clearly multidimensional. Homophobia is one of these dimensions.

The IHP was developed to allow researchers to investigate sources of homophobia in heterosexual populations and to understand the ways in which homophobia

relates to other areas of human social and psychological functioning. The IHP is a 25-item summated category partition scale with a score range from 0 to 100. Some of the items represent positive statements about gay people and their social interactions, and the remainder are negative to control for response set bias.

The Attitudes Toward Lesbians and Gay Men (ATLG Scale). Herek (1984, 1988) developed the ATLG scale so that separate scores for attitudes toward lesbians and gay men could be obtained. The working of existing scales, referring to "homosexuals" in general, tended to have respondents equate homosexuality with male homosexuals, to the exclusion of female homosexuals. In order to study sex differences in anti-lesbian/gay attitudes, The ATLG scale was developed to distinguish attitudes toward lesbians from attitudes toward gay men (Herek, 1988).

The ATLG is a 20-item scale in summated rating scale format with two 10-item sub-scales: Attitudes Toward Lesbians (ATL) and Attitudes Toward Gay Men (ATG). Herek (1988) reported satisfactory levels of internal consistency reliability for the scale and subscales (*alpha* = .90 for the ATLG, .89 for the ATG, .77 for the ATL). The 20 statements are presented to respondents with a 9-point scale ranging from *strongly disagree* to *strongly agree*.

Scoring is accomplished by summing scores across items for each subscale. Reverse scoring is used for some items,

and total scale scores can range from 20 (extremely positive attitudes) to 180 (extremely negative attitudes). Each subscale score can range from 10 to 90. If gender differences are the focus of the study, the ATG and ATL can be treated separately, or the ATLG can be used in combination. Herek (1988) recommended computing subscale scores and, when appropriate, combining them in a single ATLG score.

A short version of the ATLG was developed in which five ATG items and five ATL items, which correlated highly with total ATLG scores were selected (referred to as the ATLG-S). Items with reverse scoring were included to avoid response sets. The ATG-S coefficient *alpha* was .87; for the ATL-S it was .85. When the ten items were combined in the ATLG-S, *alpha* was .92. Each short version correlated highly with its longer counterpart (ATG, r = .96; ATL, r = .95; ATLG r = .97). Appendix A contains a copy of the ATLG short form. The construct validity of the ATLG-S and (ATLG) is supported by its significant correlations with other measures, for example: (a) the Attitudes Toward Women Scale (for males: r = .72 with the ATL-S, and .87 with the ATG-S; for females: r = .90 with the ATL-S and .85 with the ATG-S); (b) the Traditional Family Ideology scale (for males: r = .73 with the ATL-S and .91 with the ATG-S; for females: r = .93 with the ATL-S and .91 with the ATG-S); and (c) the Religious Ideology Scale (for males: r = .69 with the ATL-S and .70

with the ATG-S; for females: r = .90 with the ATL-S and .87 with the ATG-S (Herek, 1988).

Definition of Values

Similar to attitude, the value construct does not have a clear and well-established definition. Due to its more abstract nature relative to the attitude construct, psychological research on values has been more limited (Mueller, 1986; Petty & Cacioppo, 1981; Rokeach & Ball-Rokeach, 1989). Nevertheless, interest in values, the number and type of values that exist, the impact of values on an individual, and the relationship of values to behavior and cognition has been addressed by social psychologists since the early 20th century (Mueller & Wornhoff, 1990; Rokeach, 1968). For example, in 1931, Dewey published his manuscript *Theory of Valuation*, which focused on distinguishing types of values. In differentiating values, Dewey (1931) delineated two major divisions of values: the desired and the desirable.

Schwartz and Bilsky (1987) suggested the presence of five fundamental attributes in most definitions of values. The first basic feature involves the conceptualization of values as concepts or beliefs. The second feature suggests that values are end states or behaviors which an individual desires. A third feature implies that values go beyond specific situations to encompass many different circumstances. Fourth, values are typically defined as aids

in selecting and evaluating objects, events and behavior. The final common aspect of definitions of values involves the structure of a values system and presupposes an ordering within the values system based on the importance of the value for the individual (Schwartz & Bilsky, 1987).

Rokeach's conceptualization of values. Rokeach defined value as an "enduring belief that a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end state of existence" (Rokeach, 1973, p.5). Values become internalized into a system which, consciously or unconsciously, serves as a standard to guide actions, to develop and maintain attitudes, to justify self and others, and to influence others through a basis of comparison.

Like attitudes, values involve evaluating, but values are more abstract, higher order constructs. Thus, values are more permanent and resistant to change, and they have a direct or indirect causal influence on both attitudes and behaviors. Values may serve either as ends or as means to ends (Rokeach, 1968, 1973).

Rokeach (1969) distinguished between *modes of conduct* and *end states of existence*. A mode of conduct was considered a specific means for achieving a goal that is both personally and socially preferable, for example the value *honesty*. An end state of existence was considered to be a preferable end or life goal that is both personally and

socially desired, for example the value *a world at peace*. Within Rokeach's theoretical framework, modes of conduct are termed *instrumental values* and end states of existence are termed *terminal values*.

Values are hypothesized to cause attitudes (Mueller, 1986; Rokeach, 1968, 1973). An attitude toward an object is a function of the extent to which that object is perceived to facilitate the attainment of important values. Thus, one's attitude toward persons, groups, and all cognitive objects will be determined largely by the extent to which each of these objects is associated with the fulfillment of one's values.

Although values are determinants of attitudes, there is not a one-to-one relationship between particular attitudes and particular values. Rather, a single attitude is caused by many values -- by one's whole value system. A person's attitude toward an object is determined by a hierarchical ordering of values and by beliefs regarding the extent to which the object is associated with the fulfillment of each value (Mueller, 1986; Rokeach, 1973).

Feather's conceptualization of values. Feather's (1969, 1982, 1988, 1990) modification of Rokeach's work introduced an expectancy-value approach to understanding value organization and function. He defined values as, "organized summaries of experience that capture the focal, abstracted qualities of past encounters, that have a

normative or oughtness quality about them, and that function as criteria or frameworks against which present experiences can be tested...and can function as general motives" (Feather, 1982, p. 275). This conceptualization assumes a relationship between values and normative criteria involving an aspect of goodness versus badness. Feather also considers a functional overlap in the definition of needs and values, and an evaluative component which differentiates between the desired (preferred) and the desirable (preferable).

Feather (1990) proposed that both needs and values are of the same general class of motives. As such, they impact an individual's subjective definition of an experience or object. This impact of needs and values is interpreted as valence or subjective value, which can be either positive, inducing attraction, or negative, inducing aversion. Thus, the valence feature of values and needs becomes indirectly linked to the affective system.

The cognitive-affective component to Feather's (1969, 1982, 1988, 1990) conceptualization of values is associated with both the possible actions an individual may perform and the potential outcome of those actions. The actions and consequences become linked to either positive or negative affect. Therefore, anticipation of positive or negative affect becomes linked to cognitive appraisal, which in turn influences motivational states. In summary, the expectation

that an individual experiences within a situation is related to both the actions taken and the subjective value ascribed to the outcome of the action.

Schwartz's conceptualization of values. Calling for a universal structure of values, Schwartz (1990; Schwartz & Bilsky, 1987) also modified and integrated Rokeach's theory and inventory of values. Values are defined as "people's conceptions of the goals that serve as guiding principles in their lives" (Schwartz, 1990, p. 142). Values are said to function beyond specific situations, and express not only the interests of the individual but also the interests of the collective or group to which the individual belongs. Like Rokeach, Schwartz suggested that there are a limited number of values, and in addition proposed that values refer to a finite number of motivational domains.

Schwartz relied on a set of assumptions to support his claim that values belong to motivational domains. One assumption is that values are cognitive representations of fundamental human conditions. These conditions are universal, and consist of three different divisions: "biologically based needs of the organism, social interfactional requirements for interpersonal coordination, and social institutional demands for group welfare and survival" (Schwartz & Bilsky, 1987, p. 551). Based on theoretical assumptions and analysis of values from the Rokeach Values Survey, among other values instruments,

Schwartz (1990) identified ten universal value domains: hedonism, achievement, self-direction, social power, stimulation, prosocial, restrictive conformity, security, tradition, and maturity. He further divided these domains into three major value types: individual types, collective types, and both individual and collective types. The theory of universal value domains has been supported in cross-cultural studies conducted in Australia, Finland, Germany, Hong Kong, Israel, Spain, and the United States (Schwartz & Bilsky, 1990).

Rokeach's Belief System Theory of Stability and Change in Personality

Introduction

Belief system theory is a "social psychological theory of organization that attempts to understand and to explain the general problems of stability and change in belief systems" (Ball-Rokeach, Rokeach & Grube, 1984, p. 17). This is different from trait and factor theories of personality, which primarily focus on stability. Changing the (relatively stable) organization of traits that comprise personality (contrasted with changing habits) is a particularly difficult challenge that is seldom addressed in the experimental literature. Rather than personality being conceptualized as an organization of traits, belief system theory proposes that personality is an organization of beliefs. The assumption is that beliefs (rather than

traits) are the regulators of behavior. Although beliefs are relatively enduring, they can also undergo change (Ball-Rokeach, et al., 1984; Rokeach, 1973, 1968).

Theories of experimental social psychology that concentrate on cognitive or attitude change are typically unconcerned with stability. The focus is usually on understanding the process of attitude change, such as the process of persuasion or resistance to persuasion. Little attention has been paid to understanding the maintenance of or changes in the cognitive or belief structure of the whole person (Ball-Rokeach, et al., 1984; Rokeach, 1985). Belief system theory addresses both the dynamics underlying change and the dynamics that maintain the stability of belief systems and behaviors. Stability is viewed as more than mere absence of change or return to a state of equilibrium. Stability, like change, requires a theoretical analysis and explanation. This theory views both stability and change of belief systems and behaviors as motivated by underlying needs for self-maintenance and self-enhancement.

Maintenance and Enhancement of Self-Esteem

Belief system theory rejects the idea that human beings are motivated by a basic need for consistency. Ball-Rokeach et al. (1984) suggest that social psychologists are in error when they infer, via observations of behavior being congruent with psychological dispositions (motives, biological urges, genetic dispositions, and instincts), that

people often act in ways that are consistent with their beliefs or often change their beliefs to make them more consistent with their behavior. Thus, rather than claiming that people's beliefs and behaviors are consistent with their need for consistency, belief system theory assumes that humans believe and behave in ways that are consistent with a need to maintain and enhance their self-esteem (see Jones, 1973, for a review of experimental evidence suggesting the greater power of self-esteem theories over consistency theories as explanations of behavior).

Rokeach (1973, 1985) and Ball-Rokeach, et al. (1984) identify two processes that must be differentiated from one another: *maintaining* self esteem and *enhancing* self-esteem. The motivation for maintenance means preserving the current stance of one's self-conceptions or self-presentations and not losing the present level of self-esteem. On the other hand, the motivation for enhancement implies improving upon what one believes, says or does to attain a higher level of competence or morality.

Competence and morality are considered two exhaustive self-enhancing motives that are central to self-esteem. Thus, a person is not totally satisfied with merely maintaining self-esteem. The self is active and aspires to improve competence or morality in some way; hence people strive for growth through enhancement of self-esteem. All other human needs might be subsumed under the need to

maintain and enhance self-esteem, which has its origins in society, the individual, and the interactions between society and the individual (Ball-Rokeach, 1984; Rokeach, 1968, 1973).

Self-conception and self-presentation components of self-esteem. Self-esteem has two components: *self-conceptions* (the private beliefs we have about ourselves -- what we are and want to become) and *self-presentations* (what others might think of us). In private self-reflection, we all need to maintain and enhance our own images or thoughts of ourselves as worthy to self and others. Furthermore, during private self-reflection we can be more realistic and less ego defensive about acknowledging shortcomings than when presenting ourselves to others. What others think of us is also important to the maintenance and enhancement of self-esteem. Even if we fall short of our own ideals, we can present ourselves in a manner such that others will think well of us (Ball-Rokeach, et al., 1984; Rokeach, 1968, 1973).

The distinction between self-conceptions and self-presentations is important to methods developed to facilitate growth and enhancement of self-esteem. Belief systems theory posits that self-presentations are often accompanied by processes of ego defense and reality distortion, leading us to exaggerate our positive attributes and to minimize our negative attributes. However, since

self-conceptions are private, ego defenses are less likely to be present and we are more apt to think about and be influenced by disconcerting realities about ourselves.

Self-conceptions and self-presentations concern the person's need to strive for *competence* (a sense of mastery or effectance in whatever we do) and *morality* (ideas and judgments about rightness-wrongness, helping, and loving rather than harming or exploiting self and others). Belief system theory assumes that our basic motivation is the need to maintain and enhance self-conceptions and self-presentations of competence and morality. This explains why people are willing to change (to enhance self-esteem), as well as why they resist change (which may threaten self-esteem).

Origins of self-conceptions and self-presentations.

Where do self-conceptions and self-presentations come from? They originate both in society and in the individual. Societal demands encompass both competence and morality, and are of two kinds: *terminal demands* (achievement of socially desired end states such as wisdom, salvation, and peace,); and *instrumental demands* (engaging in socially desired behaviors that become standards of judgment for realizing idealized end states such as behaving honestly, capably, and compassionately). Ball-Rokeach et al. (1984) stated that "society makes such demands for competence and morality upon individuals, who, through the process of socialization,

internalize these demands so that they make these same demands upon themselves and eventually, as agents of society, upon others" (p. 24).

Societal and individual values. Belief system theory proposes that societal demands for competence and morality are communicated through *values*. Shared values become internalized as the standards for judging the competence and morality of one's self and of others. The demands of society (and its institutions) must be parallel to individual needs, such that what is good for the individual is good for society, and what is good for society is good for the individual. Societal demands are transmitted from generation to generation through modeling and positive and negative reinforcement (Ball-Rokeach, et al., 1984; Rokeach, 1973). The values that are learned by individuals serve a dual purpose: they are the cognitive representations of both societal demands and individual needs for competence and morality. Thus, people think about their individual needs in the same terms as the demands made upon them by society and its institutions, and in addition, they may see their own needs as conforming to societal demands.

Rokeach (1968, 1973) viewed values as organized into hierarchies. Individual differences in value hierarchies originate as a result of differences in culture, in the influences of various institutions, the individual's rank in society, and differences in gender roles, age roles, group

membership, occupation, lifestyle, and personal experience. Furthermore, a distinction is made between *terminal* value hierarchies (prioritized end states of behavior) and *instrumental* value hierarchies (prioritized modes of behavior that lead to desired end states of behavior). Value hierarchies are relatively stable, but, unlike traits, they can undergo change.

Values about self and others can be continually arranged, rearranged, and differentially reinforced throughout life as society, institutions, and reference groups undergo changes. Individuals must continually compare the relative importance of values in the value hierarchy, and hence they are subject to change. In sum, values and value hierarchies become the standards applied to oneself and others. Value hierarchies develop during childhood out of individual needs and coordinated societal demands. Values are crucial in the formation of attitude toward self, which is the set of beliefs organized around the self that become central to one's belief system. When values are applied externally, value hierarchies guide the formation of innumerable favorable and unfavorable attitudes toward others (Ball-Rokeach, 1984; Rokeach, 1968, 1973).

The Belief System

Ball-Rokeach et al. (1984) offered a comprehensive *belief system* comprising the organization of beliefs around the self, the organization of values, and the value-related

attitudes toward objects and situations. The belief system forms a cognitive framework for mental activities (e.g., information processing, decision-making, ego defense, judging, and persuading) which, in turn, lead to behaviors. "This structure of beliefs, attitudes, and values is organized to serve primarily the maintenance and enhancement of self-esteem (p. 27)."

Rokeach (1980) summarized the components of the belief system as follows:

> A *belief* is any expectancy concerning existence, evaluation, prescription-proscription, or cause.
>
> An *attitude* is a relatively enduring organization of existential, evaluative, prescriptive-proscriptive, and causal beliefs organized around an object or situation, predisposing one to respond (a) preferentially to the object or situation, (b) discriminatingly to all persons perceived to vary in their attitude to object or situation, and (c) differentially to social controls or pressures intended to coerce expression to specified positions toward object and situation. All such preferential, discriminatory, or differential responses are instrumental to the realization of societally-originating values.
>
> *Values* are (societally-originating) shared prescriptive or proscriptive beliefs about ideal modes

of behavior and end-states of existence that are activated by, yet transcend object and situation.

All responses to objects and situations, to people who agree or disagree, and to social controls are congruent with one another, and are also congruent because they are directed by one's hierarchically-organized cognitive system of beliefs, attitudes, and values. This cognitive system will remain stable to the extent that it will maintain or enhance societally-originating self-conceptions and self-presentations concerning competence and morality.

Thus, personality is a stable arrangement of interrelated parts that are capable of undergoing continuing change. A change in any part of the belief system influences other parts, and the more central the part, the wider the influence on related beliefs, attitudes, mental activities, and behaviors. In cognitive terms, personality is "an organization of beliefs, attitudes, and values around the self rather than an organization of traits" (Ball-Rokeach, et al., 1984, p. 28).

Questions regarding Belief System Theory. Three questions arise regarding belief system theory. First, since the theory presents a cognitive focus, is the belief system a conscious system that disregards unconscious forces? Ball-Rokeach et al. (1984) contend that the content and structure of a belief system is not necessarily conscious. In fact, people are often unable or unwilling to

inform others directly about their beliefs. Thus, the observer must make inferences about any belief or cognition about another's mental state from what the person says or does.

The second question asks if the formulation of personality as an organization of beliefs, attitudes, and values serving the self is an overly rational model of human functioning. Ball-Rokeach, et al. (1984) contended that beliefs are not necessarily rational. Belief systems contain elements that are conscious, unconscious, rational, and irrational, and conscious beliefs are not necessarily rational. Because societal demands and individual needs for competence and morality are sometimes incompatible (e.g., demands to be ambitious yet honest, creative yet conforming, competitive yet cooperative, dependent yet independent, self-serving yet altruistic), it is unlikely that belief systems are always rational, logical, or consistent. Thus, at most, belief systems are consistent with strivings for self-esteem rather than with strivings for logical consistency.

The final question concerns whether the emphasis on cognitive functioning neglects affective components. Ball-Rokeach, et al. (1984) conceptualized all beliefs as having affective, as well as cognitive, components. Any cognition may imply an affect, and any affect may imply a cognition.

The arousal of self-satisfaction and self-dissatisfaction. Feelings of self-satisfaction and self-dissatisfaction are important to the maintenance and enhancement of self-esteem. Either implicitly or explicitly, people ask themselves whether what they said, did, or found out about themselves is consistent with their self-conceptions or self-presentations of being competent or moral. When there is consistency, the feeling of self-satisfaction (and hence self-esteem) increases. However, discrepancies lead to feelings of self-dissatisfaction (Ball-Rokeach, 1984; Rokeach, 1973).

Belief system theory proposes that the basic mechanism accounting for both long-term change and long-term stability in cognitions and behaviors is the maintenance and enhancement of self-esteem. The motivation for change occurs through either the alleviation of the noxious affective state associated with self-dissatisfaction, or activation and perpetuation of the pleasurable and reinforcing affective state associated with self-satisfaction. In summary,

> any information directly or indirectly provided to a person that is perceived to have implications for conceptions and presentations of the self as competent or moral, whether self-dissatisfying or self-satisfying, will become salient to the person. The impetus that brings about change in belief systems and

> behaviors is salient information that first arouses and then sets in motion a process of alleviation or elimination of feelings of self-dissatisfaction. Conversely, the impetus for stability, maintenance, increasing integration, and persistence comes from salient information that first arouses and then sets in motion a process of perpetuating for as long as possible feelings of self-satisfaction about competence or morality (Ball-Rokeach, et al., 1984, p.31).

The authors also distinguished between diffuse and focused feelings of self-dissatisfaction and self-satisfaction. Ordinarily, people experience these feelings as vague because they are not accustomed to reflecting on their beliefs, attitudes or values, observing connections between what they believe, or what they say or do, and their self-conceptions and self-presentations. Thus, when states of self-dissatisfaction are diffuse or ambiguous, self-esteem is barely maintained but rarely enhanced. On the other hand, when a person is consciously aware or knowledgeable of some salient attribute of the self that has important positive or negative implications for self-esteem, a more focused state of self-satisfaction or self-dissatisfaction is experienced.

Inducing salient self-knowledge. It is assumed that people generally lack self-knowledge due to the complex structure and function of the belief system, intellectual

limitations, and ego defense. However, self-knowledge is induced when a person selectively receives previously unknown (important) information about the belief system, which has implications for self-esteem. This provides the impetus for stability or change. Most people have a socially learned and natural curiosity to know more about themselves and about others, and when comparisons are made, judgments are made about one's level of competence and morality.

Focused feelings of self-satisfaction occur when a person is provided with important comparative information that is compatible with self-conceptions and self-representations. This results in both reinforcement and stabilization of beliefs or actions, as well as making them more available to activation or arousal. When important comparative information is not compatible with self-esteem, focused feelings of self-dissatisfactions occur. This results in feelings that hinder further expression of beliefs or actions, making them more open to change (Ball-Rokeach, et al., 1984).

Selective experimental feedback of information about people's own and others' belief systems or behaviors, which are designed to induce salient self-knowledge, occurs when the following criteria are met (Ball-Rokeach, et al., 1984):

1. If the information appeals to the curiosity that people have to understand themselves better.

2. If the information is potentially useful, that is, holds out a promise of increasing one's knowledge about something that is truly important to oneself. We assume that the most important information that persons can obtain about themselves is that which directly involves their competence or morality. We further assume that information about one's values, because they are central and because they serve as standards for evaluating self and others, will be more important than information about one's attitudes or behaviors.
3. If the information is unambiguous and does not require too much specialized training or effort to understand.
4. If the information appears credible and intuitively correct.
5. If the information arouses a feeling of self-satisfaction because it reinforces or confirms one's self-conceptions or self-presentations of competence or morality or, alternatively, if it arouses a feeling of self-dissatisfaction because it raises doubts about one's present level of competence or morality and thus becomes in impetus for change.

6. If it is within the repertoire of the person to act upon the information, either to alleviate or eliminate the focused feeling of self-dissatisfaction or to extend and enhance the focused feeling of self-satisfaction.
7. If the information is presented under conditions that minimize ego defense (pp. 35-36.)

The Method of Self-Confrontation

Rokeach (1973) and Ball-Rokeach, et al. (1984) used the method of self-confrontation to induce salient self-knowledge, rather than confrontation by another. The method is more likely to activate self-conceptions, instead of self-presentations, resulting in a focused experience of either self-satisfaction or self-dissatisfaction. The experience of self-dissatisfaction results in the reduction or elimination of such feelings as the belief system is reorganized and behaviors regulated in a manner that enhances self-esteem.

Ball-Rokeach, et al. (1984) listed the following advantages of the method of self-confrontation:

1. Ego-defensive reactions are reduced or eliminated, as self-representations are not activated.

2. Participants find out about their own salient beliefs and behaviors in privacy.

3. In providing important information about values, attitudes, and behaviors, deception is not employed.

4. The method of self-confrontation is a method of education (increasing self-knowledge) rather than persuasion (use of inducement, control, or coercion).

5. The method of self-confrontation can be employed to induce self-knowledge with all channels of communication -- face-to-face contact, written material, computer interaction, and audiovisual means.

Summary

Lesbian women and gay men face extreme prejudice in our society. Myths and misconceptions abound, and negative attitudes contribute to the oppression experienced by this minority group. To address this problem, considerable research on the development of scales to assess negative attitudes, as well as research to determine the etiology and correlates of anti-lesbian/gay prejudice has been conducted. However, little research has met the challenge of investigating change in attitudes. This project is designed to respond to the call for attitude change research (Plasek & Allard, 1984; Herek, 1988).

Rokeach offers a comprehensive theory of attitude formation and change in his belief systems theory of stability and change in personality. Tied into his theory is the method of self-confrontation designed to effect attitude change. It is believed that negative attitudes toward lesbians and gay men can be changed in a positive

direction through confronting individuals with possible inconsistencies between their values and attitudes.

Figure 1 illustrates the model used in this attitude change research. The exogenous variables at the extreme left of Figure 1 are consistent with some of the correlates of anti-lesbian/gay prejudice shown in the social psychological literature (i.e., the demographic variables sex, age, size of home town, and type of previous contact with lesbians and gay men). Values (pretest Equality, Freedom and Wisdom) from the Rokeach Values Survey (RVS) are also posited to influence individuals' attitudes, as measured by the ATLG pretest. The group variable represents participants' assignments to either control or experimental conditions, and it is assumed that there is no relationship between group membership and the demographic, values, and ATLG pretest variables. However, group membership is hypothesized to influence one or more of the RVS values at posttest, with the experimental group showing a significant increase in value rankings following self-confrontation procedures (controlling for RVS values pretest rankings). The anticipated increase in value rankings is hypothesized to result in more positive attitudes toward lesbians and gay men at posttest (measured by the decrease in ATLG posttest scores, controlling for ATLG pretest measures). Finally, in addition to the direct effects, the indirect effects of group membership on attitude change through values will be

demonstrated through the increase in rankings in one or more values, which in turn results in change in attitudes in the positive direction.

Experimental Hypotheses

Given the model illustrated in Figure 1, the following hypotheses are advanced:

1. The demographic characteristics of sex, age, size of home town, type of previous contact with lesbians and gay men, and the values Equality, Freedom, and Wisdom influence students' attitudes toward lesbians and gay men.

2. Attitudes can be experimentally affected through confronting individuals with possible inconsistencies between their values and attitudes.

3. Changes in ranking of values following self-confrontation will be related to changes in attitudes, thereby reducing anti-lesbian/gay prejudice.

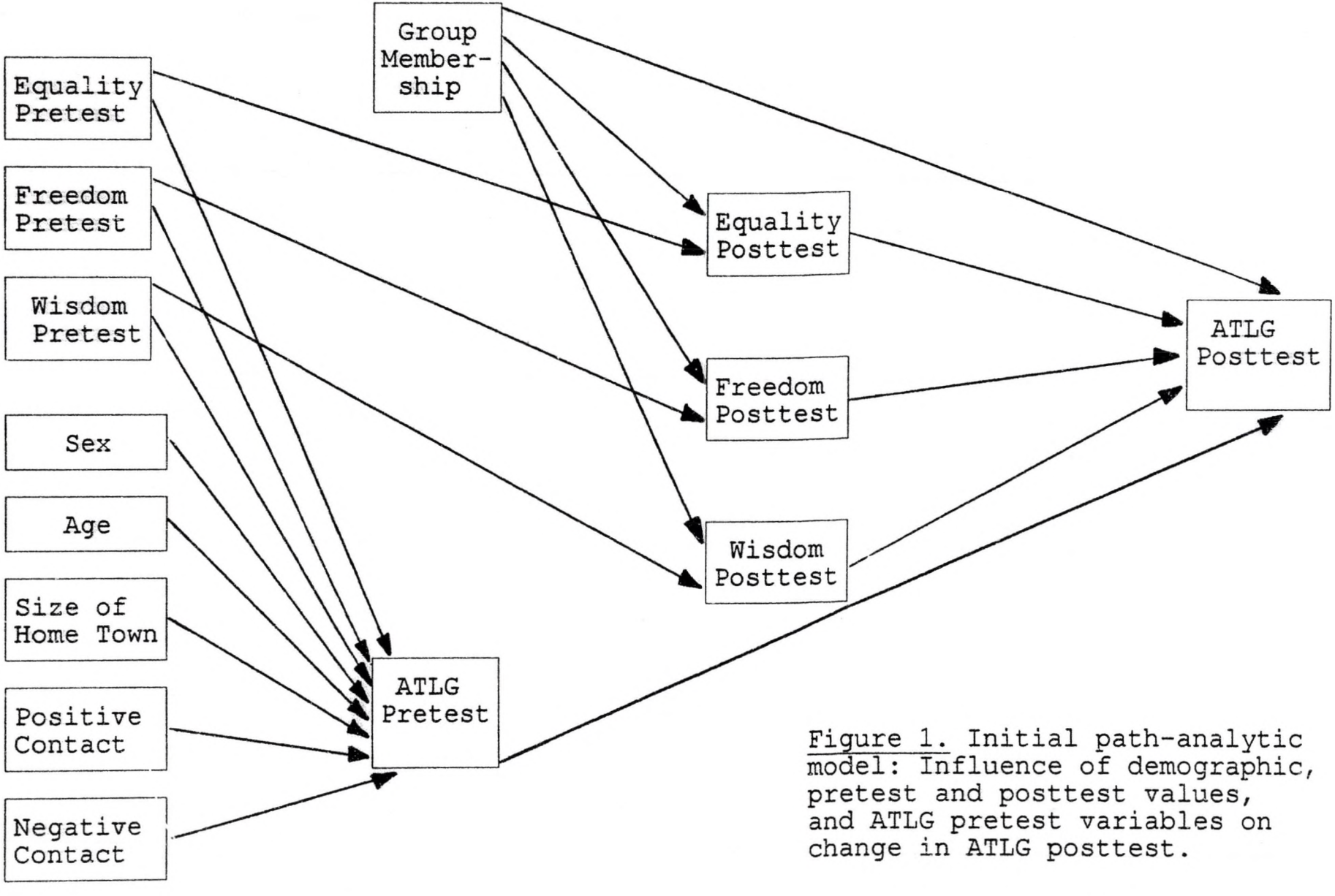

Figure 1. Initial path-analytic model: Influence of demographic, pretest and posttest values, and ATLG pretest variables on change in ATLG posttest.

CHAPTER II

METHOD

Subjects

All of the participants in this project were students attending the University of North Dakota during the fall of 1993. A total of 273 students were recruited as volunteers from two mass-lecture classes in introductory sociology. They may be considered to be representative of the university population, as approximately 90% of all students take an introductory sociology course as part of general educational requirements (K. Tiemann, personal communication, September 1993). Participation in the project was during normal class hours or in labs assigned to each class. Extra credit bonus points were offered as an incentive to participate in the project.

Instruments

The participants in each group received a packet of survey instruments after completing a consent form for both pretest and posttest procedures. Appendix A contains the survey instruments used in this study, as well as the informed consent form.

Rokeach Value Survey

The Rokeach Value Survey (RVS; Rokeach, 1982) was used to measure the importance of "terminal" values. This instrument asks participants to rank order 18 terminal values "in order of their importance to YOU, as guiding principles in YOUR life." Eighteen "instrumental" values may also be rank ordered, but were not used in this project. Each value term is accompanied by a short defining phrase, e.g., "freedom (independence, free choice)," and they are presented in alphabetical order. The value terms are on gummed labels which are easily detached and reaffixed at the desired rank position. A value's score is simply its rank. The survey has been used with ages 11 to 90 years.

According to Cohen (1986), the reliability, construct validity, and extensive norms are such as to make the RVS a useful research instrument. Test-retest reliability using the Spearman rank correlation (rho) coefficient has ranged from .78 to .80 for terminal values (college students) over 3 to 7 weeks. Median rho's were lower for college students (in the .60s) over 14 to 17 months, which Rokeach considers adequate. Kitwood (1986) stated that test-retest reliabilities were somewhat low, though not unduly so for a test of its kind.

Issue was taken with the ipsative nature of the instrument and the omission of using factor analysis of nonipsative measures in the final selection of values during

survey construction. Furthermore, the use of ranks to measure value strengths, which are probably not uniformly distributed either within or between people, was considered problematic (Cohen, 1986). Kitwood (1986) pointed to the logical difficulty with the RVS, given its basic assumption that all respondents have a personal value system in which there is a strict rank-ordering of the value elements. On the other hand, Cohen (1986) remarked on the extensive amount of interesting data for evidence of construct validity of the RVS, in which Rokeach's theories of values were related to quality of life, attitudes, political and social behavior, and cognitive change. Although the RVS has its limitations, Kitwood (1986) stated that it is more directly concerned with values, as philosophically understood, than most, if not all, other available instruments.

The Attitudes Toward Lesbians and Gay Men (ATLG) Scale

The ATGL (Herek, 1988) is a 20-item scale with two 10-item sub-scales: Attitudes Toward Lesbians (ATL) and Attitudes Toward Gay Men (ATG). Twenty statements are presented to respondents in rating scale format with a 9-point scale ranging from *strongly disagree* to *strongly agree*. Scoring is accomplished by summing scores across items for each subscale. Reverse scoring is used for some items, and total scale scores can range from 20 (extremely positive attitudes) to 180 (extremely negative attitudes).

ach subscale score can range from 10 to 90. Herek (1988) eported satisfactory levels of internal consistency eliability for the scale and subscales (*alpha* = .90 for the TLG, .89 for the ATG, .77 for the ATL).

The ATLG-S is a short version of the ATLG. It contains ive ATG items and five ATL items, which correlated highly ith total ATLG scores. Items with reverse scoring were ncluded to avoid response sets. For the ATG-S, coefficient *lpha* was .87; for the ATL-S it was .85. When the ten items ere combined in the ATLG-S, *alpha* = .92. Each short ersion correlated highly with its longer counterpart (ATG, =.96; ATL, *r*=.95; ATLG, *r*=.97) (Herek, 1988).

For the purposes of this study, a modified, self-scoring version of Herek's (1988) ATLG-S scale was developed. The purpose of the self-scoring format was to provide immediate feedback to participants during the self-confrontation procedure. The shortened version was used to facilitate ease of self-scoring, as was a 5-point Likert format (rather than the author's 9-point format). Participants were instructed to complete the ten items of the ATLG-S scale, and then to self-score the instrument by entering the value for each item on a chart, reverse scoring those items indicated, and then adding up the numbers in the final column for a total score.

Total scores on the modified, self-scoring ATLG-S were divided into three categories for the experimental

intervention. Scores ranging from 10 to 20 were designated as the *mostly positive* category, scores ranging from 21-40 were designated as the *neutral* category, and scores ranging from 41-50 were designated as the *mostly negative* category.

Type of Contact with Lesbians and Gay Men

Participants were requested to answer three questions to determine the number of personal contacts (if any) with lesbians or gay men, whether the contact was positive or negative, and how many of their close friends were lesbians or gay men (see Appendix A). The purpose of this inquiry was to determine if students' type of contact was an important variable in their explaining attitudes.

Research has shown that people who have interacted with lesbians and gay men have more positive attitudes than people who have had no contact with them (Herek, 1988, 1991). The current research added the dimension of type of contact, presuming that people who reported their contact as negative would have more unfavorable attitudes than people reporting no contact or positive contact.

Participants were grouped according to whether they reported positive, negative, or no contact with lesbians or gay men according to the following criteria. A participant was determined to have had positive contact if reporting two or more personal contacts with lesbians or gay men, and indicating that the experience for each contact was positive. A participant was determined to have had negative

contact if reporting two or more personal contacts with lesbians or gay men, and indicating that the contact was negative for at least two of those contacts. If the participant reported having one or more close friends who were either lesbians or gay men, they were considered to have had positive contact. The remaining participants were considered to have had no contact.

Self-Dissatisfaction

Although not analyzed in the current project, subjects were asked to indicate on a 7-point Likert scale whether they were "completely satisfied" (1) or "completely dissatisfied" (7) with their scores on the ATLG. Additional ratings of self-dissatisfaction were obtained for ranking of the values Equality, Freedom, and Wisdom. Reasons for dissatisfaction were also obtained.

Procedure

The Norm Session

The purpose of the norm group was to obtain information to be presented during the experimental intervention, which is detailed below. Norm group responses were also used to examine reliability of the ATLG-S, and to assess for student characteristics that contribute to the explanation of attitudes toward lesbians and gay men. Participants were 96 students from an introductory sociology class who completed the RVS, the self-scoring ATLG-S scale, the three questions about type of contact with lesbians and gay men, and the

demographic questionnaire. Three of the cases were eliminated due to missing data, leaving 93 useable instruments. The information obtained was summarized and subsequently used for the development of data tables and interpretations for the experimental intervention.

Control Group Procedures

A control group of 66 participants was formed from a second mass-lecture introductory sociology class (the experimental group also came from this class). Each of the small lab sections from the mass class was randomly assigned to either control or experimental procedures, with all students in specific lab sessions undergoing the same treatment.

During the pretest procedure, all control group participants completed the RVS, the self-scoring ATLG-S scale, the three questions reporting type of contact with lesbians and gay men, and the demographic questionnaire. Posttest measures were obtained for the control group during a mass lecture period occurring six weeks after the pretest measures (during which time the experimental group also completed posttest measures). Posttest measures consisted of the ATLG-S, RVS, and the demographic questionnaire. After the posttest, a total of 59 participants remained in the control group, as 7 of those taking the pretest measures did not return for the posttest session.

Experimental Group Procedures

The experimental group consisted of 111 students from the same mass-lecture class as the control group. Each of the small lab sections from the mass class was randomly assigned to either control or experimental procedures, with all students in specific lab sessions undergoing the same treatment. The experimental group completed the same pretest instruments as the control group.

Immediately following the pretest measures, the experimental treatment was administered. The data from the norm group was presented in tabular form, printed as part of the questionnaire packet. Three tables compared the average rankings of the RVS values Equality, Freedom and Wisdom, according to responses of norm group students who reported positive, neutral or negative attitudes toward lesbians and gay men. Interpretations of each table were provided both in printed form and orally by the investigator. Immediately following each data table was an interpretation of the information contained in the table. The interpretation consisted of a confrontational statement about the rank of each value and how this related to positive, neutral, or negative attitudes toward lesbians and gays.

The interpretations were designed to elicit self-confrontation due to self-dissatisfaction with their rankings of the specific values presented in the tables. Reading the statements to the subjects served to focus their

attention on the information contained in the table. This facilitated the self-confrontation component of the intervention. Subjects were instructed to take a minute to reflect on the information presented to them. Finally, participants were asked to indicate how satisfied or dissatisfied they were with their scores on the ATLG scale and their rankings of RVS Equality, Freedom, and Wisdom. Reasons for dissatisfaction were also obtained, but were not used in subsequent analyses.

Six weeks after the pretest procedure, the experimental group (along with the control group) was asked to complete posttest measures consisting of the RVS and ATLG-S scale. After the posttest, a total of 102 participants remained in the experimental group, as 9 of those taking the pretest measures did not return for the posttest session.

Data Analysis

Prior to analysis, the following variables were examined through various SPSS/PC+ V2.0 (SPSS Inc., 1988) programs for accuracy of data entry, missing values, and fit between their distributions and the assumptions of regression analysis: group, sex, age, size of home town, positive contact, negative contact and no contact with lesbians and gay men, pretest and posttest rankings of RVS Equality, Freedom and Wisdom, and pretest and posttest scores on ATLG. The variables were examined separately for the norm, experimental and control groups.

Two cases had missing values on the dummy variable size of home town. Rather than deleting the cases from the analysis, missing values were assigned the mean value of 0.5. Casewise plots of standardized residuals from the regression equation designating ATLG posttest as the dependent variable identified nine regression outliers ($|Z| > 2.0$) ranging from -2.84 to 2.52. These outliers were due to extreme differences between pretest and posttest ATLG scores. Three of the outliers were from the control group and six were from the experimental group. However, these outliers were not deleted from the analysis, as there was insufficient substantive reason to do so. No variable transformations to correct for skewed distributions were necessary.

Group differences were analyzed using the SPSS/PC+ procedures ANOVA, CROSSTABS and ONEWAY. The SPSS/PC+ procedure RELIABILITY was used to assess the ATLG-S scale. Regression analysis was performed using SPSS/PC+ REGRESSION with an assist from FREQUENCIES in evaluation of model assumptions. The purpose of the regression analysis was to test the first hypothesis, namely that the demographic variables sex, age, size of home town, and type of previous contact with lesbians and gay men, as well as the RVS values (pretest) Equality, Freedom and Wisdom, influence attitudes toward lesbians and gay men. The regression equation

designated pretest ATLG as the dependent variable in partial testing of the model pictured in Figure 1.

To test the hypothesis that attitudes toward lesbians and gay men can be experimentally affected through confronting individuals with possible inconsistencies between their values and attitudes, Analysis of Covariance was used, with pretest ATLG as the covariate, and group membership as the group factor. In order to test the third hypothesis, LISREL 7 (Joreskog & Sorbom, 1989) was used to perform an observed variable path analysis. The following exogenous variables were specified: Equality pretest, Freedom pretest, Wisdom pretest, sex, age, size of home town, positive contact with lesbians/gays and negative contact with lesbians/gays, and group membership. The endogenous variables consisted of posttest measures of RVS Equality, Freedom and Wisdom, and ATLG pretest and posttest measures.

For both regression and path analysis procedures, the following dummy variables were specified: (a) for size of home town, 0 = towns with a population of less than 10,000 people and 1 = towns with a population of more than 10,000 people; (b) for type of previous contact, in which two dummy variables were created, 0 = no contact and 1 = positive contact, and 0 = no Contact and 1 = negative contact; (c) for group membership, 0 = control group and 1 = experimental group).

CHAPTER III

RESULTS

Sample Description

Participants were 253 students enrolled in undergraduate introductory sociology courses at a major midwestern university. Table 1 summarizes the demographic information for all participants by gender. The sample included 132 females and 121 males. The mean age was 20.1 years (*SD* = 4.2, range = 18 - 47). First year students comprised 43.7% (*n* = 111) of the sample, second year students comprised 44.9% (*n* = 113) of the sample, and 11.4% (*n* = 29) were third and fourth year students. The majority, 54.4% (*n* = 135), came from towns with a population of 10,000 people or less. Additionally, 37.0% (*n* = 94) of the participants reported having positive contact with lesbians and gay men, 10.2% (*n* = 26) reported having negative contact, 52.0% (*n* = 131) reported having no contact, and 0.8% (*n* = 2) chose not to respond. The participants were divided into three groups: a norm group, an experimental group, and a control group. Table 2 provides demographic information for the experimental and control groups.

Norm Group

The norm group consisted of 92 participants. Of these,

Table 1

Demographic Information for All Participants by Gender

Variable	Females (*n*=132)		Males (*n*=121)		Total (*n*=253)	
	n	(%)	*n*	(%)	*n*	(%)
Age						
18	42	(32.3)	38	(31.4)	80	(31.9)
19	49	(36.8)	41	(33.9)	90	(35.4)
20	15	(11.3)	20	(16.5)	35	(13.8)
21	6	(4.5)	7	(5.8)	13	(5.1)
22	4	(3.0)	6	(5.0)	10	(3.9)
23	1	(0.8)	4	(3.3)	5	(2.0)
24+	14	(11.0)	5	(4.0)	19	(7.6)
Year in College						
First	68	(51.1)	43	(35.5)	111	(43.7)
Second	50	(38.3)	63	(52.1)	113	(44.9)
Third	9	(6.8)	9	(7.4)	18	(7.1)
Fourth	5	(3.8)	6	(5.0)	11	(4.3)
Size of Home Town						
< 500	15	(11.3)	10	(8.3)	25	(9.8)
500-1500	28	(21.8)	20	(16.5)	48	(19.3)
1501-3000	16	(12.0)	10	(8.3)	26	(10.2)
3001-5000	2	(1.5)	2	(1.7)	4	(1.6)
5001-10,000	21	(15.8)	11	(9.1)	32	(12.6)
10,001-20,000	11	(8.3)	16	(13.2)	27	(10.6)
20,001-50,000	22	(16.5)	23	(19.0)	45	(17.7)
> 50,001	15	(11.3)	27	(22.3)	42	(16.5)
Missing	2	(1.5)	2	(1.7)	4	(1.6)
Type of Contact with Lesbians and Gay Men						
Positive Contact	55	(41.4)	39	(32.2)	94	(37.0)
Negative Contact	6	(4.5)	20	(16.5)	26	(10.2)
No Known Contact	71	(54.1)	60	(49.6)	131	(52.0)
Missing			2	(1.7)	2	(0.8)

Table 2

Demographic Information for Participants by Group

Variable	Experimental (*n*=102)		Control (*n*=59)		Total (*n*=161)	
	n	(%)	*n*	(%)	*n*	(%)
Sex						
Female	56	(54.9)	32	(54.2)	88	(54.7)
Male	47	(45.1)	27	(45.8)	74	(45.3)
Age						
18	46	(45.1)	21	(35.6)	67	(42.0)
19	29	(28.4)	20	(33.9)	49	(30.4)
20	8	(7.8)	7	(11.9)	15	(9.3)
21	5	(4.9)	2	(3.4)	7	(4.3)
22	4	(3.9)	2	(3.4)	6	(3.7)
23	3	(2.9)	2	(3.4)	5	(3.1)
24+	7	(7.0)	5	(8.5)	12	(7.2)
Year in College						
First	58	(56.9)	29	(49.2)	87	(54.0)
Second	34	(33.3)	22	(37.3)	56	(34.8)
Third	7	(6.9)	4	(6.8)	11	(6.8)
Fourth	3	(2.9)	4	(6.8)	7	(4.3)
Size of Home Town						
< 500	8	(7.8)	10	(16.9)	18	(11.2)
500-1500	19	(18.6)	11	(18.6)	30	(18.6)
1501-3000	11	(10.8)	7	(11.9)	18	(11.2)
3001-5000	2	(2.0)	0	(0.0)	2	(1.2)
5001-10,000	16	(15.7)	7	(11.9)	23	(14.3)
10,001-20,000	11	(10.8)	7	(11.9)	18	(11.2)
20,001-50,000	20	(19.6)	9	(11.9)	27	(16.8)
> 50,001	14	(13.7)	9	(15.3)	23	(14.3)
Missing	1	(1.0)	1	(1.7)	2	(1.2)
Type of Contact with Lesbians and Gay Men						
Positive Contact	37	(36.3)	28	(47.5)	65	(40.4)
Negative Contact	12	(11.8)	4	(6.8)	16	(9.9)
No Known Contact	53	(52.0)	27	(45.8)	80	(49.7)

44 were female, and 48 were male. The mean age for the norm group was 20.1 years (*SD* = 3.5). First year students comprised 25.8% (*n* = 24) of the participants, second year students comprised 62.4% (*n* = 57) of the participants, and the remaining 11.8% (*n* = 11) were third and fourth year students. Of this group 49.5% (*n* = 44) were from towns with a population of 10,000 people or less, and 50.5% (*n* = 48) were from towns with a population of more than 10,000 people. Additionally, 31.2% (*n* = 29) of the norm group participants reported having positive contact with lesbians and gay men, 10.8% (*n* = 10) reported having negative contact, 55.9% (*n* = 51) reported having no contact, and 2.2% (*n* = 2) chose not to respond.

Experimental Group

The second group was designated as the experimental group. This group consisted of 102 participants, with 56 females and 46 males. The mean age was 20.0 (*SD* = 4.2). First year students comprised 56.9% (*n* = 58) of the sample, second year students comprised 33.3% (*n* = 34) of the sample, and the remaining 9.8% (*n* = 10) were third and fourth year students. Of this group, 55.4% (*n* = 56) came from towns with a population of 10,000 people or less, and 44.6% (*n* = 46) came from towns with a population of more than 10,000 people. Additionally, 36.3% (*n* = 37) of the experimental group participants reported having positive contact with lesbians and gay men, 11.8% (*n* = 12) reported having

negative contact, and 52.0% (n = 53) reported having no contact.

Control Group

The control group consisted of 59 participants. Thirty-two were female and 27 were male. The mean age was 20.4 (SD = 5.1). First year students comprised 49.2% (n = 29) of the sample, second year students comprised 37.3% (n = 22), and the remaining 13.5% (n = 8) were third and fourth year students. Of the students in this group, 60.3% (n = 35) were from towns with a population of 10,000 people or less, and 39.7% (n= 24) were from towns with a population of more than 10,000 people. Additionally, 47.5% (n = 28) of the control group participants reported having positive contact with lesbians and gay men, 6.8% (n = 4) reported having negative contact, and 45.8% (n = 27) reported having no contact.

Pretest Group Comparisons

To assess for differences in demographic characteristics among norm, experimental, and control groups, chi-square analyses and oneway ANOVAs were computed. An alpha level of .05 (two-tailed observed significance level) was used for all statistical tests. Chi-square analysis of gender by group was not statistically significant $\chi^2(2, N = 254) = .94$, $p = .63$. Thus, the distribution of females and males among the three groups was not significantly different. On the variable age, oneway

ANOVA resulted in $F(2, 253) = .25$, $p = .78$, indicating that mean differences in age among groups were not significantly different from zero.

Chi-square analysis of the variable year in college by group resulted in statistically significant differences, $\chi^2 (6, N = 254) = 22.69$, $p < .001$. Comparison of the proportions for each group showed that the norm group was composed of fewer first year students (25.8%) than the experimental (56.9%) or control (49.2%) groups. However, since the only purpose of the norm group was to gather preliminary information in preparation for the intervention phase of the study, differences in year in college were deemed inconsequential.

On the variable size of home town subjects were grouped into two classes, those from towns with less than 10,000 people and those from towns with more than 10,000 people. Chi-square analysis resulted in no statistically significant differences among groups, $\chi^2(2, N = 250) = 1.77$, $p = .41$. This shows that there were no significant differences among the norm, experimental, and control groups in the proportion of students coming from towns less than or greater than 10,000 people.

Finally, chi-square analysis of type of contact with lesbians and gay men by group resulted in non-significant differences, $\chi^2(4, N = 252) = 4.23$, $p = .37$. Thus, participants in the norm, experimental and control groups

did not differ in the distribution of students having positive contact, no contact, or negative contact.

Pretest Group Comparisons on RVS Values and ATLG

Means and standard deviations by group for pretest and posttest ATLG and mean rankings of RVS Equality, Freedom, and Wisdom are summarized in Table 3. ATLG scores ranged from a minimum of 10 points to a maximum of 50 points, and RVS Equality, Freedom, and Wisdom rankings ranged from a minimum of 1 to a maximum of 18. Appendix B displays the means and standard deviations of pretest and posttest rankings for all 18 of the RVS terminal values. In addition, internal consistency reliability analysis of the ATLG for the total sample of students was performed and is reported in Appendix C.

To assess for differences among the norm, experimental and control groups on pretest ATLG and RVS measures, oneway ANOVAs were performed. The results of oneway ANOVA by group on pretest ATLG scores was not statistically significant, $F(2, 253) = .99$, $p = .37$. Thus, the mean differences in pretest ATLG scores among the norm, experimental, and control groups were not significantly different from zero.

The oneway ANOVA performed by group on pretest RVS Equality was statistically significant, $F(2, 253) = 4.92$, $p < .005$. Multiple comparison tests, using the Tukey-

Table 3

Means and Standard Deviations for Pretest and Posttest Intervention Variables

Variable	Group		
	Norm[a]	Experimental	Control
ATLG Pretest			
M	29.25	31.09	29.22
SD	9.71	10.73	10.24
ATLG Posttest			
M		30.28	30.36
SD		11.36	11.06
Equality Pretest			
M	11.07	9.87	8.81
SD	4.20	4.26	4.97
Equality Posttest			
M		8.49	8.68
SD		4.86	5.10
Freedom Pretest			
M	7.04	7.43	6.47
SD	4.24	4.05	3.58
Freedom Posttest			
M		6.58	6.00
SD		4.22	3.50
Wisdom Pretest			
M	9.02	9.50	9.22
SD	4.61	4.05	4.41
Wisdom Posttest			
M		9.33	9.93
SD		4.89	4.86

[a]Posttest values were not obtained for the norm group.

HSD procedure denoting pairs of groups significantly different at the $p < .05$ level, revealed mean differences between the norm group and the control group on pretest RVS Equality. However, there were no statistically significant differences between the experimental and control groups on the mean rankings of pretest Equality. The oneway ANOVA for group by pretest RVS Freedom was not statistically significant, $F(2, 253) = 1.06$, $p = .35$, nor was group by pretest RVS Wisdom, $F(2, 253) = .30$, $p = .74$. In summary, there were no pre-existing differences between the experimental and control groups with respect to attitudes toward lesbians and gay men, or the ranking of the values Equality, Freedom, and Wisdom.

Factors Contributing to ATLG Pretest

Hypotheses 1 proposed that the demographic characteristics of sex, age, size of home town, type of previous contact with lesbians and gay men, and the values Equality, Freedom, and Wisdom influence students' attitudes toward lesbians and gay men. Oneway ANOVA of ATLG pretest by sex showed no significant differences in attitudes between females and males, $F(1,160) = 2.83$, $p = .09$. The correlation of ATLG pretest with age was non-significant, $r = -.12$, $p > .05$. Oneway ANOVA of pretest ATLG by size of home town showed significant mean differences between groups of students from larger towns versus smaller towns, $F(1, 159) = 8.97$, $p < .001$. Participants from towns with a

population of more than 10,000 people scored lower (M = 27.59, SD = 11.15) on pretest ATLG (indicating more positive attitudes toward lesbians and gay men) than those from towns with a population of less than 10,000 people (M = 32.51, SD = 9.62).

Oneway ANOVA of pretest ATLG by type of contact showed significant mean differences between groups, $F(2, 158)$ = 21.22, $p < .001$. Tukey's HSD procedure revealed that the positive contact group's pretest ATLG scores were significantly different from those of both the no contact and negative contact groups at the $p < .05$ level. The mean difference between the pretest ATLG scores for the no contact and negative contact groups was not significantly different from zero. Students reporting positive contact with lesbians and gay men scored lower on pretest ATLG (M = 24.89, SD = 10.13) than those having no contact (M = 33.15, SD = 9.21) or negative contact (M = 39.06, SD = 7.24). Thus, positive contact was related to positive attitudes toward lesbians and gay men, whereas students having either no contact or negative contact held more negative attitudes.

Correlations between ATLG pretest and the three RVS pretest rankings of the values Equality, Freedom, and Wisdom demonstrated that pretest RVS Equality was significantly related to attitudes toward lesbians and gay men, participants who placed higher value on Equality higher had more positive attitudes, $r = .37$, $p < .001$. The

correlations of the ATLG pretest with the RVS pretest values Freedom and Wisdom were not significant, r's = .16 and -.16 respectively, p's > .05.

Finally, multiple regression analysis was performed between pretest ATLG as the dependent variable and the following independent variables: group, gender, age, type of contact with lesbians and gay men, and the pretest RVS values Equality, Freedom, and Wisdom. An alpha level of .05 was used for all statistical tests. Interaction effects were tested, and none were found to be statistically significant. Appendix D displays the zero-order correlations among all of the independent and dependent variables specified in this research. Table 4 displays a summary of the analysis for variables explaining pretest ATLG.

With all of the variables entered into the equation, R^2 = .34, $F(8, 152) = 9.86$, $p < .001$. Of the three RVS variables, only the RVS pretest ranking of Equality made a significant contribution to explaining the variance in pretest ATLG, $t(152) = -4.34$, $p < .001$. The variables size of home town and positive contact were significant. In addition, the independent variable negative contact with lesbians and gay men was significant, $t(152)$, = 2.52, p = <.05.

In summary, results of the multiple regression analysis demonstrated that the independent variables size of home

Table 4

Summary of Hierarchical Regression Analysis for Variables Predicting ATLG Pretest

Variable	*r*	*b*	*SE b*	*b**
Size of Home Town	-.23	-2.95	1.48	-.14*
Negative Contact	.27	5.04	2.52	.14*
Age	-.12	-0.02	0.16	-.00
Gender	-.13	-1.38	1.15	-.06
Positive Contact	-.43	-6.75	1.55	-.31*
Freedom Pretest	.17	0.12	0.20	.04
Wisdom Pretest	-.16	-0.32	0.17	-.13
Equality Pretest	.37	0.61	0.17	.26*

$R^2 = .34$, $p = < .001$

*p < .05.

town, positive contact with lesbians and gay men, negative contact with lesbians and gay men, and the RVS pretest value Equality made statistically significant contributions in explaining the variance in the dependent variable, pretest ATLG.

Factors Contributing to Change in ATLG Posttest

Hypothesis 2 proposed that attitudes can be experimentally affected through confronting individuals with possible inconsistencies between their values and attitudes. To test this hypothesis, ANCOVA was computed to analyze ATLG posttest by group, controlling for ATLG pretest. This resulted in significant differences between the experimental and control groups, $F(1, 160) = 6.83$, $p = .01$. The experimental group scored lower than the control group on the ATLG posttest, resulting in more positive attitudes toward lesbians and gay men after the self-confrontation intervention. Thus, hypothesis 2 was supported.

Path Analyses for Recursive Model of Factors Influencing Attitude Change

Figure 2 shows the path diagram for the three recursive path models analyzed. Although not specified by curved arrows in Figure 2 (for clarity in simplifying the number of paths represented), the demographic variables and Equality, Freedom and Wisdom pretest values variables are intercorrelated. The paths in Model 1 are represented by

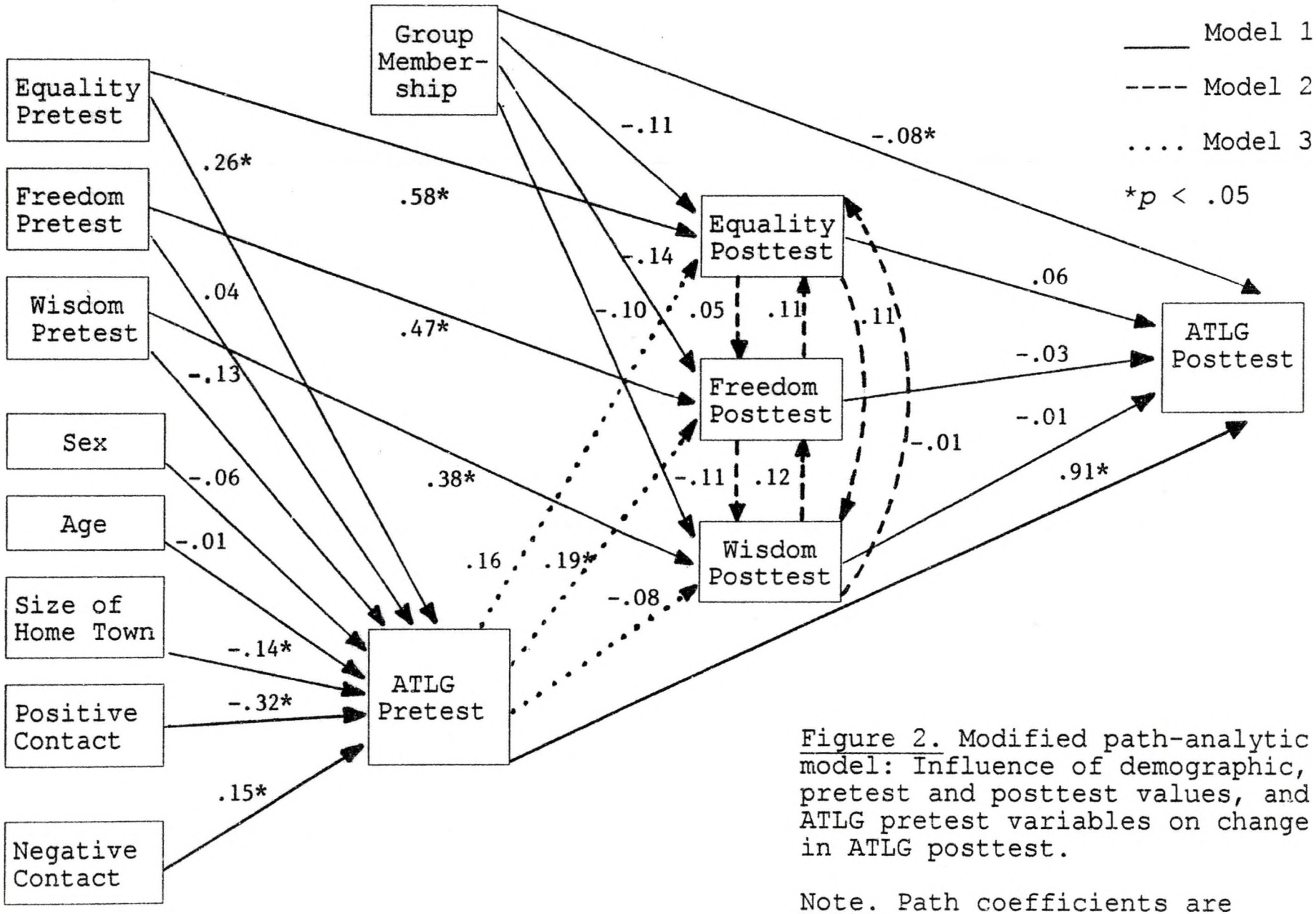

Figure 2. Modified path-analytic model: Influence of demographic, pretest and posttest values, and ATLG pretest variables on change in ATLG posttest.

Note. Path coefficients are standardized.

the solid lines. Model 2 adds the intercorrelation of the Equality, Freedom and Wisdom posttest values to the variables specified in Model 1, and these paths are represented by dashed lines. Model 3 adds the paths from ATLG pretest to the Equality, Freedom, and Wisdom posttest values, and these paths are represented by dotted lines.

Table 5 displays a summary of the Goodness of Fit Indices for the three models. Although the fit indices for Model 1 represented a reasonably good fit of the model to the data, inspection of residuals suggested the addition of Model 2, the paths between the RVS values posttest, and Model 3, the paths from ATLG pretest to RVS values posttest. The two modifications of Model 1 improved Goodness of Fit, with the final modification of Model 3 resulting in a model that fit the data quite well.

Table 5

Summary of Goodness of Fit Indices for LISREL Path Models

Model	χ^2	*df*	*p*	GFI	AGFI
Model 1	50.71	36	.053	.958	.877
Model 2	38.93	30	.127	.968	.890
Model 3	24.61	27	.596	.980	.921

Note. Model 2: $\Delta\chi^2$ (df = 6) = 11.78, $p > .05$;

Model 3: $\Delta\chi^2$ (df = 6) = 14.32, $p < .01$

Appendix D displays correlations and standard errors for the variables specified in the three path models analyzed. Appendix E displays the Maximum Likelihood Estimates of the standardized path coefficients, Standard Errors, and *t* values for the paths represented in Model 3. The standardized path coefficients for Model 3 are presented in Figure 2. Referring to Figure 2, it can be seen that the paths from Equality pretest ($t = 3.56$, $p < .05$), size of home town ($t = -2.04$, p .05), positive contact ($t = 4.37$, p .05) and negative contact ($t = 2.05$, p .05) to ATLG pretest are significant. Furthermore, all of the pretest variables show significant paths to their corresponding posttests.

Hypothesis 3 proposed that changes in ranking of values following self-confrontation will result in changes in attitudes, thereby reducing anti-lesbian/gay prejudice. However, the paths from the group variable to Equality, Freedom and Wisdom posttest variables were not significant, *t*'s = -1.77, .21 and -1.32 respectively, *p*'s > .05. In addition, the path from the Equality, Freedom, and Wisdom posttest to the ATLG posttest did not reach significance, *t*'s = 1.55, .85, and -.31 respectfully, *p*'s > .05. More importantly, the path from group to ATLG posttest is significant ($t = 2.05$, $p < .05$), indicating that group membership made an important contribution to the ATLG posttest. Thus, although there was a significant group difference in ATLG posttest, changes in ranking of values

did not explain this difference. In other words, the demonstrated change in attitude was not influenced by the values designated in this research.

CHAPTER IV

DISCUSSION

The results showed partial support for the first hypothesis, that the demographic characteristics of sex, age, size of home town, type of previous contact with lesbians and gay men, and the values Equality, Freedom, and Wisdom would influence students' attitudes toward lesbians and gay men. With ATLG pretest as the dependent variable, regression analysis revealed that the independent variables size of home town, negative contact and positive contact with lesbians and gay men, and ranking of the RVS value Equality (pretest) made significant contributions in explaining attitudes toward lesbian women and gay men.

Participants from smaller towns (populations less than 10,000 people) held more negative attitudes than those from larger towns. This is consonant with the literature demonstrating that individuals from more rural areas hold more anti-lesbian/gay prejudice. Students who reported having positive contact with lesbians and gay men showed more positive attitudes toward them when compared with those who reported having no known contact. On the other hand, participants who reported having negative contact showed more negative attitudes toward lesbians and gay men than

those reporting having no known contact. These results are consistent with research demonstrating the positive aspects of exposure in reducing anti-lesbian/gay prejudice. It is important to note that in the present sample, only 10% of the participants reported having negative experiences with lesbians and gay men, whereas 37% reported having positive experiences, and 52% reported having no known contact. Clearly, the more contact people have, the less prejudice toward lesbian women and gay men was evidenced.

Gender and age of participants were not significant predictors of attitudes toward lesbians and gay men, as hypothesized, although females tended to show more positive attitudes. Since the age range of students was restricted, it is felt that this may account for the non-significance of this variable.

Finally, in considering factors contributing to attitudes toward lesbians and gay men, the average ranking of the RVS value Equality was a significant predictor. Students who valued Equality (of opportunity) higher held more positive attitudes than those with lower rankings. The rankings of the values Freedom and Wisdom did not make significant contributions in explaining attitudes in this study.

The second hypothesis stated that attitudes can be experimentally affected through confronting individuals with possible inconsistencies between their values and attitudes.

This hypothesis was supported in that group membership did make a significant contribution to ATLG posttest scores. Students assigned to the experimental group held more positive attitudes toward lesbian women and gay men after the intervention than students in the control group, after controlling for pretest variation.

The third hypothesis was that changes in the ranking of values following self-confrontation would be related to changes in attitudes, thereby reducing anti-lesbian/gay prejudice. However, analysis of the data indicated that posttest attitudes was not significantly related to posttest ranking of the values Equality, Freedom, or Wisdom, as had been expected according to Rokeach's Belief System Theory.

Given the significant path coefficient of group to ATLG posttest, group membership did affect posttest attitudes. In considering the reasons for the experimental group's more positive attitudes toward lesbians and gay men after the self-confrontation intervention, it is reasonable to draw upon the cognitive psychology research. Quackenbush (1989) compared cognitive theory with Rokeach's Belief Systems theory and discussed similarities as well as differences. In cognitive theory, a major focus involves challenging distorted thought content and the assumptions underlying the cognition. This is similar to Rokeach's method of self-confrontation used in the present research.

Research by Hodges and Wilson (1993) demonstrated that when subjects are asked to think about and explain the reasons for their attitudes, there is often at least a temporary attitude change. It is reasonable to suggest that the intervention prompted the experimental group to think about the reasons for their attitudes toward lesbians and gay men. Given that the information presented to the students was positive in content, this exposure may have contributed to change in attitudes.

Although the adjusted difference between experimental and control groups on the ATLG posttest was significant, inspection of the means reveals a raw difference of less than one point (experimental group M = 30.28, SD = 11.36; control group M = 30.36, SD = 11.06). This small difference in ATLG posttest scores may not be deemed substantial. Note however, that mean ATLG pretest scores differed by nearly two points, with the experimental group scoring higher (M = 31.09, SD = 10.73) than the control group (m = 29.22, SD = 10.24). Considering that the control group showed more positive attitudes at pretest than the experimental group (lower scores indicate more positive attitudes), and that the control group's posttest scores were higher than its pretest scores, it might be concluded that exposure to the ATLG pretest resulted in higher ATLG posttest scores for the control group. Because the experimental group had lower scores at posttest than at pretest, the intervention may

have prevented an increase in negative attitudes demonstrated by the control group, in addition to enhancing positive attitudes toward lesbians and gay men.

Research by Hodges and Wilson (1993) may provide an additional explanation for the small group differences in ATLG posttest scores. When individuals are asked to provide a reasonable explanation for their attitudes, they will draw on external cues (e.g., self-confrontation attitude change intervention) to explain any internal ambiguity they may hold. If the attitude is inconsistent with the external cue, attitude change might occur. Furthermore, the attitude change will be somewhat contingent on the extent that the individuals believe the reasons given (external cue) accurately reflect their internal state.

However, Hodges and Wilson (1993) hypothesized that attitude accessibility moderated the effect of analyzing reasons for attitude change. They suggested that individuals with highly accessible attitudes would be less likely to use reason as a basis for their attitudes, thereby experiencing less attitude change if asked to explain the reason for their attitudes. The basic premise for the moderating effect of accessibility is that more accessible attitudes are stored in memory, are easily activated, and exert more influence on evaluation than analytical reason. In other words, accessible attitudes are more salient and therefore less likely to change with reasoning.

In applying the attitude accessibility research to the present project, participants holding very positive or very negative attitudes (more salient) toward lesbians and gay men may be less likely to change their attitudes after the self-confrontation intervention. This is compatible with Rokeach's (1973, 1980, 1985) theory regarding stability and change of belief systems, suggesting that human beings believe and behave in ways that are consistent with a need to maintain and enhance their self-esteem. The motivation for maintenance involves preserving the current stance of one's self-conceptions or self-presentations. Stronger attitudes, whether positive or negative, are more salient (accessible), and thereby more central to self-esteem and less likely to change. Attitude accessibility may be an important factor to consider in future attitude change research.

Further research is needed to develop practical models of attitude change. Exposure to positive information and increased contact with lesbian women and gay men, as well as prompting people to think about their attitudes in a self-confrontation intervention appear to be useful. Furthermore, attention to attitude accessibility as a change factor should be included in future research. Finally, reaching an audience that has more ambivalent than strong attitudes may be more productive in affecting positive attitude change. Given the hostile social climate and

denial of civil rights experienced by lesbians and gay men, continued research in this area is a critical need.

Generalization of these results beyond the present sample should be done with caution. Suggested modification for the procedures in this study include: more completely randomized assignment to experimental and control groups; a more heterogenous sample in terms of socio-demographic variables; intervention techniques that incorporate the affective and cognitive components of attitudes; and attention to attitude accessibility as a moderating factor in attitude change.

APPENDICES

APPENDIX A
INSTRUMENTS

CONSENT FORM

You are invited to participate in a study about values and attitudes of college students toward lesbian women and gay men. By completing the following questionnaire, you will not only assist in a doctoral dissertation research project, but you will also be provided with information about your own values and attitudes. In return for your voluntary participation, we hope to increase your own self-knowledge. This should take about 20 minutes to complete.

The information that you provide will be held in strict confidence at all times. Names will not be associated with the questionnaire, since unique number codes will be used for identification purposes on the questionnaire. This signed Informed Consent sheet will be separated from the questionnaire packet as soon as you finish, and be kept in a separate file. The responses will be entered into a computer and the information will be held in aggregate form. Only the investigator (Sally Kennedy) and supervising professor (Dr. George Henly) will have access to the raw data.

Since your identity cannot be determined, please feel free to respond to the questions accurately and honestly. It is possible that some of these questions might be uncomfortable for you, and for this reason your participation is entirely voluntary. The decision whether or not to participate is completely yours and you are free to end your participation at any time. If you choose not to take part in this study, you will not be penalized in any way.

If you have any questions about this project, its purposes, or your participation, please contact Sally Kennedy or Dr. George Henly, UND Department of Counseling, at 777-2729. Please sign both copies of this form and keep one for your own reference. Thank you for your help.

I have read all of the above and willingly agree to participate in this study explained to me by Sally Kennedy.

Signed_____ Date_____

DEMOGRAPHIC QUESTIONNAIRE

*****YOUR ID NUMBER_____*****

Please be sure to complete each item below:

1. Sex: _____Female _____Male

2. Age: _____Years

3. Class: ____1st Yr ____2nd Yr ____3rd Yr ____4th Yr

4. College Major:_____
(Please complete even if uncertain)

5. Approximate Population of Home Town_____ (State___)

- -

VALUES

On the next page are 18 values listed in alphabetical order. Your task is to arrange them in order of their importance to **YOU**, as guiding principles in **YOUR** life. Each value is printed on a gummed label which can be easily peeled off and pasted in the boxes on the left hand side of the page.

Study the list carefully and pick out the one value which is the most important to you. Peel it off and paste it in Box 1 on the left. Then pick out the value which is the second most important to you. Peel it off and paste it in Box 2. Then do the same for the remaining values. The value which is least important goes in Box 18.

Work slowly and think carefully. If you change your mind, feel free to change your answers. The labels peel off easily and can be moved from place to place. The end result should truly show how you really feel.

PLEASE GO ON TO THE NEXT PAGE

ATLG Scale

This questionnaire is designed to measure your attitudes toward lesbians and gay men. It is not a test, so there are no wrong answers. Answer each item as carefully and accurately as you can by placing a number beside each one as follows:

1 = Strongly Agree
2 = Agree
3 = Neither agree or disagree
4 = Disagree
5 = Strongly disagree

_____ 1. Lesbians just can't fit into our society.

_____ 2. State laws regulating private, consenting lesbian behavior should be loosened.

_____ 3. Female homosexuality is a sin.

_____ 4. Female homosexuality in itself is no problem, but what society makes of it can be a problem.

_____ 5. Lesbians are sick.

_____ 6. I think male homosexuals are disgusting.

_____ 7. Male homosexuality is a perversion.

_____ 8. Just as in other species, male homosexuality is a natural expression of sexuality in human men.

_____ 9. Homosexual behavior between two men is just plain wrong.

_____ 10. Male homosexuality is merely a different kind of lifestyle that should not be condemned.

GO ON TO THE NEXT PAGE

SCORING THE ATLG SCALE

To give yourself a score in the ATLG, enter your score for each item in the Answer column in the chart below. **REVERSE SCORE** the statements as indicated in the Factor column in the following way:

1 = 5
2 = 4
3 = 3
4 = 2
5 = 1

Add up the numbers you assigned to each of the 10 items for your total score.

SCORING CHART

Item #	Answer	Factor	Score
1		reverse	
2		=	
3		reverse	
4		=	
5		reverse	
6		reverse	
7		reverse	
8		=	
9		reverse	
10		=	
TOTAL = Your Score			

If your score is 10-20, your attitude is mostly POSITIVE.
If your score is 21-40, your attitude is mostly NEUTRAL.
If your score is 41-50, your attitude is mostly NEGATIVE.

PLEASE GO ON TO THE NEXT PAGE

PLEASE ANSWER THE FOLLOWING QUESTIONS

How many lesbian women have you had personal contact with in the past two years? _____

In general, has this contact been:

_____Positive or _____Negative?

How many gay men have you had personal contact with in the past two years? _____

In general, has this contact been:

_____Positive or _____Negative?

How many of your close friends are lesbians or gay men? _____

PLEASE STOP HERE.

WAIT FOR FURTHER INSTRUCTIONS.

COMPARE YOURSELF TO OTHER UND STUDENTS

We recently asked 92 students in another Introductory Sociology class at UND to complete a questionnaire similar to this one. We were interested in finding the relationships between students' ranking of values and their attitudes toward lesbians and gays. Table One below summarizes the information obtained from your peers.

While reading this, keep in mind **your** ranking of the value EQUALITY, and your attitude (positive, neutral, negative) based on the **ATLG Scale.**

TABLE ONE

	37 UND STUDENTS WITH **POSITIVE** SCORES TOWARD LESBIANS/GAYS (scored 10-25)	31 UND STUDENTS WITH **NEUTRAL** SCORES TOWARD LESBIANS/GAYS (scored 26-35)	25 UND STUDENTS WITH **NEGATIVE** SCORES TOWARD LESBIANS/GAYS (scored 36-50)
Average Ranks:			
EQUALITY	10	14	15

Table One shows the average importance placed on the value EQUALITY. For example, the 37 students who had positive attitudes toward lesbians/gays ranked the value EQUALITY, on average, 10th. In contrast, the 31 students with neutral attitudes toward lesbians/gays ranked EQUALITY, on average, 14th. The 25 students with negative attitudes toward lesbians/gays ranked EQUALITY even lower, on average, 15th.

WHAT THESE RESULTS MEAN

Apparently, by ranking EQUALITY 10th, students with positive attitudes are saying that equal opportunity for all is more important than are 8 other values. On the other hand, by ranking EQUALITY 15th, students with negative attitudes toward lesbians/gays are really saying that only 3 other values are less important to them than equal opportunity for all.

In other words, students with negative attitudes toward lesbians/gays are less in favor of EQUALITY for all than are those with positive attitudes.

Take a minute to compare your score on the ATLG Scale and your ranking of EQUALITY with those of these other UND students.

COMPARE YOURSELF TO OTHER UND STUDENTS

While reading this, keep in mind **your** ranking of the value FREEDOM, and your attitude (positive, neutral, negative) based on the **ATLG Scale.**

TABLE TWO

	37 UND STUDENTS WITH **POSITIVE** SCORES TOWARD LESBIANS/GAYS (scored 10-25)	31 UND STUDENTS WITH **NEUTRAL** SCORES TOWARD LESBIANS/GAYS (scored 26-35)	25 UND STUDENTS WITH **NEGATIVE** SCORES TOWARD LESBIANS/GAYS (scored 36-50)
Average Ranks:			
FREEDOM	3	6	8

Table Two shows the average importance placed on the value FREEDOM. For example, the 37 students who had positive attitudes toward lesbians/gays ranked the value FREEDOM, on average, 3rd. In contrast, the 31 students with neutral attitudes toward lesbians/gays ranked FREEDOM, on average, 6th. The 25 students with negative attitudes toward lesbians/gays ranked FREEDOM even lower, on average, 8th.

WHAT THESE RESULTS MEAN

Apparently, by ranking FREEDOM 3rd, students with positive attitudes are saying that independence and free choice are more important than are 15 other values. On the other hand, by ranking FREEDOM 8th, students with negative attitudes toward lesbians/gays are really saying that only 8 other values are less important to them than independence and free choice.

In other words, students with negative attitudes toward lesbians/gays are less in favor of FREEDOM for all than are those with positive attitudes.

Take a minute to compare your score on the ATLG Scale and your ranking of FREEDOM with those of these other UND students.

COMPARE YOURSELF TO OTHER UND STUDENTS

While reading this, keep in mind **your** ranking of the value WISDOM, and your attitude (positive, neutral, negative) based on the **ATLG Scale.**

TABLE THREE

	37 UND STUDENTS WITH **POSITIVE** SCORES TOWARD LESBIANS/GAYS (scored 10-25)	31 UND STUDENTS WITH **NEUTRAL** SCORES TOWARD LESBIANS/GAYS (scored 26-35)	25 UND STUDENTS WITH **NEGATIVE** SCORES TOWARD LESBIANS/GAYS (scored 36-50)
Average Ranks:			
WISDOM	6	10	11

Table Three shows the average importance placed on the value WISDOM. For example, the 37 students who had positive attitudes toward lesbians/gays ranked the value WISDOM, on average, 6th. In contrast, the 31 students with neutral attitudes toward lesbians/gays ranked WISDOM, on average, 10th. The 25 students with negative attitudes toward lesbians/gays ranked WISDOM even lower, on average, 11th.

WHAT THESE RESULTS MEAN

Apparently, by ranking WISDOM 6th, students with positive attitudes are saying that a mature understanding of life is more important than are 12 other values. On the other hand, by ranking WISDOM 11th, students with negative attitudes toward lesbians/gays are really saying that only 7 other values are less important to them than a mature understanding of life.

In other words, students with positive attitudes toward lesbians/gays value a mature understanding of life more than those with negative attitudes.

Take a minute to compare your score on the ATLG Scale and your ranking of WISDOM with those of these other UND students.

Appendix B

Table 6

Means and Standard Deviations for Pretest and Posttest RVS Values by Group

Value	Group		
	Norm[a]	Experimental	Control
Comfortable Life			
Pretest			
M	7.99	8.60	7.10
SD	4.89	4.88	4.08
Posttest			
M		8.17	7.61
SD		4.97	4.16
Equality			
Pretest			
M	11.07	9.87	8.81
SD	4.20	4.26	4.97
Posttest			
M		8.49	8.68
SD		4.86	5.10
Exciting Life			
Pretest			
M	9.99	10.63	11.32
SD	4.71	4.82	4.24
Posttest			
M		10.61	10.75
SD		5.06	4.02

able 6 Continued

eans and Standard Deviations for Pretest and Posttest RVS alues by Group

Value	Group		
	Norm[a]	Experimental	Control
Family Security			
Pretest			
M	4.64	4.98	5.02
SD	4.16	3.63	3.92
Posttest			
M		5.99	5.75
SD		4.29	4.27
Freedom			
Pretest			
M	7.04	7.43	6.47
SD	4.24	4.05	3.58
Posttest			
M		6.58	6.00
SD		4.22	3.50
Health			
Pretest			
M	4.97	5.17	5.78
SD	3.62	3.46	3.84
Posttest			
M		5.35	5.98
SD		3.98	3.66
Inner Harmony			
Pretest			
M	9.81	10.21	10.24
SD	4.74	4.64	4.61
Posttest			
M		9.62	9.42
SD		4.34	4.87

Table 6 Continued

Means and Standard Deviations for Pretest and Posttest RVS Values by Group

Value	Group		
	Norm[a]	Experimental	Control
Mature Love			
Pretest			
M	7.77	8.13	8.41
SD	3.62	4.79	4.81
Posttest			
M		8.26	8.61
SD		4.64	4.18
National Security			
Pretest			
M	15.13	14.83	13.41
SD	2.84	3.48	4.83
Posttest			
M		13.34	13.02
SD		4.57	4.73
Pleasure			
Pretest			
M	10.53	11.12	11.08
SD	4.55	4.55	4.29
Posttest			
M		10.46	10.51
SD		4.69	4.31
Salvation			
Pretest			
M	10.64	9.90	11.15
SD	6.26	6.57	6.80
Posttest			
M		9.85	10.81
SD		6.29	6.37

Table 6 Continued

Means and Standard Deviations for Pretest and Posttest RVS Values by Group

Value	Group		
	Norm[a]	Experimental	Control
Self Respect			
Pretest			
M	6.48	5.51	7.08
SD	3.45	3.45	4.27
Posttest			
M		6.55	6.50
SD		3.79	3.99
Sense of Accomplishment			
Pretest			
M	9.57	9.11	9.44
SD	3.87	4.47	3.63
Posttest			
M		9.98	9.54
SD		4.12	4.44
Social Recognition			
Pretest			
M	12.76	12.57	12.95
SD	4.09	3.84	3.87
Posttest			
M		12.91	12.83
SD		4.38	3.74
True Friendship			
Pretest			
M	6.13	6.35	7.00
SD	3.27	3.65	4.37
Posttest			
M		7.83	7.95
SD		4.12	4.54

Table 6 Continued

Means and Standard Deviations for Pretest and Posttest RVS Values by Group

Value	Group		
	Norm[a]	Experimental	Control
Wisdom			
Pretest			
M	9.02	9.50	9.22
SD	4.61	4.05	4.41
Posttest			
M		9.04	9.93
SD		3.81	4.86
World at Peace			
Pretest			
M	12.82	12.53	11.73
SD	4.95	4.76	5.00
Posttest			
M		14.73	15.36
SD		3.62	3.71
World of Beauty			
Pretest			
M	14.49	14.32	14.51
SD	3.58	3.64	4.13
Posttest			
M		12.14	11.52
SD		4.90	5.68

[a]Posttest values were not obtained for the norm group.

APPENDIX C

Reliability of ATLG

The test score reliability for the total sample of participants responding to the ATLG pretest was completed. Table 7 displays the means and standard deviations for each of the ten items comprising the ATLG. After reverse scoring, the average scores for the items ranged from 3.37 (*SD* = 1.38) for item 6 to 2.57 (*SD* = 1.09) for item 1. Item 6 had the largest standard deviation, 1.38. The correlation coefficients among the items are shown in Table 8. The item having the smallest correlation with the other items was item 8, with a correlation of .41 with item 2. Item 8's highest correlation was .63 with item 7.

The average score for the scale was 29.98 (*SD* = 10.25). The average score on an item was 3.00, with a minimum of 2.57 and a maximum of 3.37. The average of the item variances was 1.56, with a minimum of 1.19 and a maximum of 1.91. The mean inter-item correlation was .63, with the correlations between items ranging from .41 to .80.

Table 9 shows the relationship between the individual items and the composite score. All items correlated highly with one another. Cronbach's *alpha* procedure was used to estimate internal consistency reliability of the 10 items as an index of the reliability of the ATLG. Results show that *alpha* = .95, indicating that the ATLG scale is quite reliable.

Table 7

Means and Standard Deviations for ATLG Items After Reverse Scoring

Item	n = 254	*M*	*SD*
1.	Lesbians just can't fit into our society.	2.57	1.09
2.	State laws regulating private, consenting lesbian behavior should be loosened.	2.96	1.17
3.	Female homosexuality is a sin.	2.98	1.26
4.	Female homosexuality in itself is no problem, but what society makes of it can be a problem.	2.68	1.18
5.	Lesbians are sick.	2.75	1.30
6.	I think male homosexuals are disgusting.	3.37	1.38
7.	Male homosexuality is a perversion.	3.16	1.27
8.	Just as in other species, male homosexuality is a natural expression of sexuality in human men.	3.35	1.22
9.	Homosexual behavior between two men is just plain wrong.	3.26	1.31
10.	Male homosexuality is merely a different kind of lifestyle that should not be condemned.	2.90	1.28

Note. The values are based on the following Likert Scale: 1 = Strongly Agree, 2 = Agree, 3 = Neither agree or disagree, 4 = Disagree, and 5 = Strongly Disagree.

Table 8

Correlations Among Items on the ATLG

Item	1	2	3	4	5
1	----				
2	.616	----			
3	.621	.505	----		
4	.576	.524	.641	----	
5	.665	.513	.639	.535	----
6	.637	.530	.605	.534	.758
7	.669	.553	.726	.603	.747
8	.510	.410	.593	.595	.567
9	.662	.622	.803	.669	.706
10	.694	.610	.668	.620	.612

	6	7	8	9	10
6	----				
7	.784	----			
8	.597	.630	----		
9	.777	.798	.671	----	
10	.669	.719	.601	.767	----

Note. Item numbers refer to the following: 1 = Lesbians just can't fit into society; 2 = State laws regulating private, consenting lesbian behavior should be loosened; 3 = Female homosexuality is a sin; 4 = Female homosexuality in itself is no problem, but what society makes of it can be a problem; 5 = Lesbians are sick; 6 = I think male homosexuals are disgusting; 7 = Male homosexuality is a perversion; 8 = Just as in other species, male homosexuality is a natural expression of sexuality in human men; 9 = Homosexual behavior between two men is just plain wrong; 10 = Male homosexuality is merely a different kind of lifestyle that should not be condemned.

Table 9

Item-Total Statistics ATLG Scale Items

Item	Scale Mean If Item Deleted	Scale Variance If Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation
1	27.41	88.31	.76	.62
2	27.02	89.32	.65	.49
3	27.00	85.20	.79	.70
4	27.30	87.95	.71	.54
5	27.23	84.79	.78	.67
6	26.61	83.02	.80	.74
7	26.82	83.73	.85	.76
8	26.62	87.69	.69	.52
9	26.72	82.24	.89	.83
10	27.08	84.40	.81	.68

Note. Item numbers refer to the following: 1 = Lesbians just can't fit into society; 2 = State laws regulating private, consenting lesbian behavior should be loosened; 3 = Female homosexuality is a sin; 4 = Female homosexuality in itself is no problem, but what society makes of it can be a problem; 5 = Lesbians are sick; 6 = I think male homosexuals are disgusting; 7 = Male homosexuality is a perversion; 8 = Just as in other species, male homosexuality is a natural expression of sexuality in human men; 9 = Homosexual behavior between two men is just plain wrong; 10 = Male homosexuality is merely a different kind of lifestyle that should not be condemned.

APPENDIX D

Table 10

Correlation Coefficients for Independent and Dependent Variables

Variable	1	2	3	4	5	6	7
Group(1)	---	.00	-.05	.11	.12	.03	.09
Gender(2)	.00	---	.12	-.16	.09	.22	-.13
Age(3)	-.05	.12	---	-.06	.05	.08	-.12
Equality Pretest(4)	.11	-.16	-.06	---	.37	-.11	.37
Freedom Pretest(5)	.12	.09	.05	.37	---	-.07	.17
Wisdom Pretest(6)	.03	.22	.08	-.11	-.07	---	-.16
ATLG Pretest(7)	.09	-.13	-.12	.37	.17	-.16	---
Equality Posttest(8)	-.02	-.15	-.03	.66	.29	-.14	.39
Freedom Posttest(9)	.07	-.12	-.06	.27	.52	-.00	.28
Wisdom Posttest(10)	-.10	.04	.05	-.07	-.06	.38	-.14
ATLG Posttest(11)	-.00	-.18	-.13	.33	.13	-.16	.92
Positive Contact(12)	-.11	-.01	.20	-.14	-.09	.00	-.43
Negative Contact(13)	.08	-.20	-.08	.13	-.09	.08	.27
Town Size(14)	.03	-.17	.08	-.03	-.04	.00	-.23

Table 10 Continued

Correlation Coefficients for Independent and Dependent Variables

Variable	8	9	10	11	12	13	14
Group(1)	-.02	.07	-.10	-.00	-.11	.08	.03
Gender(2)	-.15	-.12	.04	-.18	-.01	-.20	-.17
Age(3)	-.03	-.06	.05	-.13	.20	-.08	.08
Equality Pretest(4)	.66	.27	-.07	.33	-.14	.13	-.03
Freedom Pretest(5)	.29	.52	-.06	.13	-.09	-.09	-.04
Wisdom Pretest(6)	-.14	-.00	.38	-.16	.00	.08	.00
ATLG Pretest(7)	.39	.28	-.14	.92	-.43	.27	-.23
Equality Posttest(8)	---	.34	-.01	.41	-.12	.07	.04
Freedom Posttest(9)	.34	---	-.01	.23	-.17	.03	-.05
Wisdom Posttest(10)	-.01	-.01	---	-.13	.01	.03	-.05
ATLG Posttest(11)	.41	.23	-.13	---	-.42	.29	-.24
Positive Contact(12)	-.12	-.17	.01	-.42	---	-.27	.26
Negative Contact(13)	.07	.03	.03	.29	-.27	---	-.08
Town Size(14)	.04	-.05	-.05	-.24	.26	-.08	---

APPENDIX E

Table 11

Summary of Path-analytic Model: Influence of Demographic, Pretest and Posttest Values, and ATLG Pretest Variables on Change in ATLG Posttest

Path	*b**	*SE*	*t*
Y1,Y2	.156	.067	2.35*
Y1,Y2	.192	.082	2.35*
Y1,Y4	-.080	.092	- .87
Y1,Y5	.908	.035	25.65*
Y2,Y3	.053	.111	.48
Y2,Y4	.109	.131	.83
Y2,Y5	.056	.036	1.55
Y3,Y2	.115	.090	1.28
Y3,Y4	-.110	.144	- .77
Y3,Y5	-.029	.034	- .85
Y4,Y2	-.008	.090	- .09
Y4,Y3	.116	.119	.98
Y4,Y5	-.010	.032	- .31
X1,Y1	.262	.074	3.56*
X1,Y2	.578	.066	8.81*
X2,Y1	*.045*	*.073*	*.61*

able 11 Continued

ath	*b**	*SE*	*t*
2,Y3	.473	.074	6.38*
3,Y1	-.130	.069	- 1.89
3,Y4	.383	.076	5.03*
4,Y1	-.059	.072	- .81
5,Y1	-.007	.068	- .10
6,Y1	-.141	.069	- 2.04*
X7,Y1	-.316	.072	- 4.37*
X8,Y2	-.106	.059	- 1.77
X8,Y3	.014	.069	.21
X8,Y4	-.100	.076	- 1.32
X8,Y5	-.081	.032	- 2.52*
X9,Y1	.147	.072	2.05*

Note. Y1 = ATLG pretest; Y2 = Equality posttest; Y3 = Freedom posttest; Y4 = Wisdom posttest; Y5 = ATLG posttest; X1 = Equality pretest; X2 = Freedom pretest; X3 = Wisdom pretest; X4 = sex; X5 = age; X6 = size of home town; X7 = positive contact; X8 = group; X9 = negative contact.
$N = 161$.
*$p < .05$

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