

AN ABSTRACT OF THE THESIS OF

Milton W. Nokes for the Master of Science in Psychology
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Gays and Heterosexuals

Abstract Approved: Cooper B. Holmes

The literature suggests there may be differences in gay and heterosexual intelligence. The purpose of this study was to determine if these differences truly exist. Thirty students at a midwestern university were given the Weschler Adult Intelligence Scale - Revised (WAIS-R). The students were women and men between the ages of 18 and 30. The 30 students were divided into two equal groups consisting of 15 students each. The placement of a student in a particular group depended on the student's sexual orientation. The researcher asked the students their sexual orientation before the WAIS-R was given. The researcher relied on the students to be honest about their sexual orientation. The students were not subdivided by gender because the researcher was only interested in IQ differences between gays and heterosexuals. As well, the samples were too small to allow the researcher to explore gender differences.

A statistically significant difference was found between the Verbal IQ's of gay and heterosexual students. The heterosexuals scored higher than the gays on the Verbal Scale of the WAIS-R, but the actual difference was too small to have clinical meaning. This researcher did not find any other statistically significant differences between the gays and heterosexuals. The literature regarding this topic would lead most researchers to assume that they would find a meaningful statistically significant difference between these two groups. This study did not support the results of other studies done in this area.

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IQ DIFFERENCES BETWEEN GAYS AND HETEROSEXUALS

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I respectfully dedicate this thesis to Grandma Icle Nokes who died January 10, 1991. This project, and the rest of my education, would not have been possible without her love and support.

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Chapter 1

Literature Review

The psychological community in the past believed that gays had distinct personality traits. These distinct personality traits were believed to be able to reveal themselves through psychological testing. The more notable of these traits were schizoid characteristics, narcissism, emotional instability, and artistic interests (Liddicoat, 1961). Regarding the following study, gays were thought to be slightly more intelligent, and it was thought that gays would score higher on the verbal section of an intelligence test. These types of beliefs have been strongly criticized (Morin, 1977; Morin & Rothblum, 1991), but the research regarding distinct personality traits for gays did leave some unanswered questions. For example, are gays more intelligent than heterosexuals. The purpose of the following study was to determine if there were statistically significant differences between gay and heterosexual IQ scores.

The intellectual capacity of gays has been largely ignored in research. An extensive review of the literature was conducted to determine if there was any information on IQ differences between gays and heterosexuals. This

researcher explored professional journals, sociology text books and psychology text books that dealt with gays and intelligence, and these sources only had limited information relating to this topic (Bootzin & Acocella, 1988; Henslin & Light, 1983; Kaufman, 1990; Penner, 1986; Robertson, 1981).

The few studies that have been done on the IQ differences between gays and heterosexuals are conflicting and contradictory (Weinrich, 1978; Willmott & Brierley, 1984). Liddicoat (1961) conducted a large scale study of married persons and people with a gay orientation. Part of his study included comparing IQ scores of the married persons to the IQ of gays; he used the married persons as his control group. The gays were volunteers from the Republic of South Africa. The data for the married subjects came from records that were collected when the Wechsler-Bellevue was being standardized for use in South Africa. Liddicoat (1961) acknowledged that some of the married persons would be gay, but he felt that most married persons were not gay. He assumed that subjects in the control group preferred sexual relations with members of the opposite sex because they were married. Before data are presented from Liddicoat's study a term needs to be

clarified. Liddicoat used the term General IQ to describe the combination of the Verbal Scales and Performance Scales, we now call this the Full Scale IQ (FIQ). The term General IQ will be used in place of FIQ when discussing his study. The IQ scores for the gay men were as follows 119.90 Verbal IQ (VIQ), 116.86 Performance IQ (PIQ), and 119.94 General IQ. The IQ scores for the married men were as follows: 114.34 VIQ, 112.92 PIQ, and 114.84 General IQ. The IQ's for the lesbians were as follows: 117.04 VIQ, 116.98 PIQ, and 118.38 General IQ. The IQ's for the married women were as follows: 110.14 VIQ, 111.28 PIQ, and 111.42 General IQ. Liddicoat (1961) found a statistically significant difference on all three scales. That is, the gays and lesbians were found to have higher IQ's on all three scales than the heterosexuals. Weinrich (1978) conducted a meta-analysis of the literature regarding gays and intelligence, and he found that gays tend to have higher IQ's than heterosexuals. The only exception to this trend was found in a particular subgroup (i.e., prisoners). McCauley and Ehrhardt (1977) compared lesbians and female transsexuals by using the Wechsler Adult Intelligence Scale (WAIS). The mean IQ's for the lesbians were 115.7 VIQ, 108.27 PIQ, and 113.3 FIQ. For the transsexuals the mean

IQ's were 119.9 VIQ, 112.53 PIQ, and 112.9 FIQ. This study did not use a heterosexual control group. Willmott and Brierley (1984) found no significant differences between gays' and heterosexuals' FIQ scores by using the WAIS. Willmott and Brierley (1984) did find significant differences between PIQ's and VIQ's. That is, they found gays scored higher on the verbal section of the test than heterosexuals, and heterosexuals scored higher on the performance section of the test than gays. The mean prorated VIQ of the gay group was 133.50 and the mean prorated PIQ was 117.40. The mean prorated VIQ of the heterosexual group was 124.20 and the mean prorated PIQ was 128.50. This indicates that there is a difference between gays' and heterosexuals' IQ scores. The fact that Willmott and Brierly (1984) found no difference in FIQ's may have been the result of using prorated scores, none of the other studies indicated that they used prorated scores.

This author found two other problems with the literature concerning the intellectual capacity of gays. First, some of the studies used persons who were not gay; that is, some of the studies used transsexuals (McCauley & Ehrhardt, 1977). This confuses the data, and suggests a misunderstanding by the authors of a gay orientation.

Second, Weinrich (1978) found studies that used personality tests to infer intelligence rather than using well designed devices that are specifically intended to measure intelligence. For example, when Weinrich published his meta-analysis of the literature in 1978, he only found two articles that used the WAIS, but both of these studies did indicate significantly higher IQ's for gays.

Significance of the Following Study

The literature suggests there is a difference between gay and heterosexual IQ scores. That difference is not well understood and past results were conflicting. The conflicting results may have been the result of poor sampling or using different measures of intelligence. The purpose of this study was to determine whether a difference existed, so gay and heterosexual IQ scores could be better understood.

CHAPTER 2

METHOD

Sample

The students in this experiment came from a midwestern university. They were women and men students between the ages of 18 and 30. This experiment used 30 students, and these students were divided into 2 groups consisting of 15 students each. The placement of a student in a particular group depended on his or her sexual orientation. The first group of students (Group A) were drawn from members and friends of the Gay and Lesbian Services of Kansas (GLSOK), and it only consisted of gays. GLSOK is a student organization that services the needs of gay students. The second group of students (Group B) was drawn from comparable students at the same university, and it only included heterosexuals. The students were tested outside of their normal academic studies. Their participation in the study was not intended to be a reflection of their university, and their participation in the study was totally voluntary. The students were not subdivided by gender because the researcher was only interested in IQ differences between gays and heterosexuals. As well, the samples were too small to allow the researcher to explore gender differences.

The students were asked their sexual orientation. All of the students were between the ages of 18 and 30.

Group A consisted of 15 gay or lesbian students, 2 women and 13 men, whose median age was 22. The educational levels for the students of Group A were as follows: one student who failed to identify his level of education, four students who indicated that they had been attending college for four or more years, seven seniors, one junior, one sophomore, and one freshman. Group B consisted of 15 heterosexual students, 9 women and 6 men, whose median age was 20. The educational level for the students in Group B were as follows: one student who indicated that she had been attending college for four or more years, three seniors, seven juniors, and four sophomores.

Materials

The Wechsler Adult Intelligence Scale-Revised was (WAIS-R) used to obtain the IQ's of the students. The WAIS-R is intended to measure all aspects of intelligence and it consists of eleven separate tests. The WAIS-R is divided into a verbal and performance section. These two sections are referred to as scales. The Verbal Scale consists of six subtests and the Performance Scale consists of five subtests. These two scales are combined and give a third

scale, the Full Scale, which is a global assessment of intelligence. Thus, the WAIS-R provides three different IQ's: Verbal IQ (VIQ), Performance IQ (PIQ), and Full Scale IQ (FIQ). The WAIS-R is intended to measure intelligence between the ages of sixteen through seventy-four (Kaufman, 1990). Wechsler (1981) reported that the mean reliability coefficients were: .97 for VIQ, .93 for PIQ, and .97 for FIQ. These are the mean reliability coefficients for all the age groups the test is intended to measure. Wechsler (1981) reports a correlation of .85 between the WAIS-R and the Stanford-Binet, another highly reliable and valid intelligence test.

The researcher created a questionnaire with an explanation of the study for the students. The questionnaire consisted of a short explanation of the study and a few questions. The questionnaire was used to gather demographics on the students (e.g., age, gender, college level, and sexual orientation); a copy of the questionnaire is in Appendix B. The researcher relied on the students to answer the questions frankly and honestly.

Procedure

The students in Group A were drawn from GLSOK. The designated representatives of GLSOK allowed the researcher

to make a brief presentation at one of their weekly meetings. A sign up sheet was passed around after the presentation. A copy of the sign up sheet can be found in Appendix C. The sign up sheet requested that the students provide their names and telephone numbers. The sign up sheet stated that the researcher would contact them in a few days and schedule an appointment. The researcher only received 10 names the first time he contacted GLSOK, so he contacted the designated representatives again and asked if they knew anybody else who would be interested in participating in this study. He provided GLSOK with another copy of the sign up sheet, and asked that it be returned if any more names were collected. The second sign up sheet was returned, and the researcher had five more names. Some of the students who initially signed up were unable to participate in the study because of scheduling difficulties. The researcher was left with an insufficient number of students to make the study statistically significant, so he began asking students who participated in the study if they knew anybody else who was interested in participating in the study. He then began to give every student who participated in the study a business card that had his name, address, and phone number on it. The students

were asked to give the business card to any other interested students, and to have those students contact the researcher. The researcher contacted students who he knew attended GLSOK, and asked them if they wanted to participate. The researcher was able to obtain 15 gays and lesbians through this process.

The students for Group B were acquired in the same way the students from GLSOK were obtained. The researcher contacted designated representatives of university sanctioned organizations. He made a brief presentation at these organizations' meetings, and passed around the sign up sheet that is in Appendix C. There is one notable exception to this. One of the groups he used for the study did not feel it was necessary for the researcher to attend a meeting. The representative of that group sent the researcher a list of members. The researcher called the members on this list and explained individually to each student in a telephone conversation the nature of the study, and asked each student if he or she wanted to participate. Some of the students who initially agreed to participate could not participate because of scheduling difficulties. The researcher asked every student who participated in the study to contact other interested students, and gave

each student a copy of a business card. The students who had participated were asked to have other interested students contact the researcher. The researcher contacted students at this university who he knew and asked them to participate. The researcher was able to obtain 15 heterosexual students through presentations, phone conversations, individual contacts, and by the use of a business card.

Most of the students in this study were tested at the student union. The researcher attempted to test each student in a quiet meeting room. In some cases, the researcher was unable to test the students in this meeting room. The researcher attempted to find a secluded area of the union to test the student in when he was unable to do to test a student in a meeting room. Five of the gay students were tested in their own apartments because they were unable to keep appointments at the union. One of the heterosexual students was tested at the school library in a quiet study room. All of the students were tested individually. The testing session took an hour fifteen minutes to an hour and a half.

The data for the study were collected in the following manner. First, the students were asked to sign

a human consent form which can be found in Appendix A. Second, the students were asked to complete the questionnaire in Appendix B. Third, the students were given the complete WAIS-R.

The questionnaires and test score sheets were labeled Group A or Group B. This insured the anonymity of the students, and allowed the researcher to keep the two groups separate. The only place the students names appeared was on the consent form. The researcher was not able to trace the IQ's or sexual orientation of the students.

Statistical Design

The three IQ scores (e.g., VIQ, PIQ, and FIQ) of the students were the dependent variables. The independent variables were the sexual orientation of the students (e.g., heterosexual or gay). Three independent t-tests were conducted, each IQ score was compared to it's counterpart. For example, the VIQ's of the gays were compared to the VIQ's of the heterosexuals to determine if there was a statistically significant difference. This process was done with each IQ score. The alpha was set at .05.

Chapter 3

Results

The focus of this study was to determine if there were differences between gay and heterosexual IQ scores. Thirty students were placed into 2 groups of 15 students each, depending on their sexual orientation. Group A consisted only of gays and lesbians. Group B consisted only of heterosexuals. As stated before, each student was given the WAIS-R which gives three different IQ's: Verbal IQ (VIQ), Performance IQ (PIQ), and Full Scale IQ (FIQ). A summary of the results of this study can be found in Table 1.

Table 1

Means, Standard Deviations, and t-tests of WAIS-R Scores for Groups A and B

	<u>Group A</u>		<u>Group B</u>		<u>t</u>	<u>df</u>	<u>p</u>
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>			
VIQ	113.87	9.24	120.40	8.23	2.05	28	< .05
PIQ	117.80	16.09	120.20	10.13	.49	28	> .05
FIQ	117.93	12.98	123.60	8.13	1.44	28	> .05

There was a statistically significant difference between Group A's mean VIQ and the Group B's mean VIQ, $t(28) = 2.05$, $p < .05$. The mean VIQ for Group A was 113.87, and the mean VIQ for Group B was 120.40. The heterosexuals scored higher on the verbal section of the WAIS-R than the gays. There was no statistically significant difference between Group A's mean PIQ and Group B's mean PIQ, $t(28) = .49$, $p > .05$. The mean PIQ was 117.80 for Group A, and the mean PIQ was 120.20 for Group B. There was no statistically significant difference between Group A's mean FIQ and Group B's mean FIQ, $t(28) = 1.44$, $p > .05$. The mean FIQ was 117.93 for Group A, and the mean FIQ was 123.60 for Group B.

Chapter 4

Discussion

The samples used in this study were drawn from a large and diverse university. Universities allow students to explore many areas in a protective, non-judgmental academic atmosphere, so the results of this study may only be a reflection of using a college population. That is, the results of this study may not be a reflection of the general population, and that should be taken into consideration when interpreting the results of this study.

This author found no practical significant differences in the IQ's of gays and heterosexuals; although, there was a statistical significance in the Verbal IQ of these groups. The conclusion of no practical significance is based upon the fact that one would not expect meaningful differences in intellectual performance with IQ's this similar.

This study did not support the results of the earlier studies (Liddicoat, 1961; Weinrich, 1978). There are three possible explanations for this. First, one's sexual orientation is not related on how well one scores on an intelligence test, so there is no reason to expect a difference. Second, the previous studies did not use the

WAIS-R; they used the WAIS, an earlier version of the WAIS-R. The WAIS was revised because it was thought to have some flaws. The WAIS-R may be a better test; therefore, it may give a better estimate of intelligence. The results of this study may be a reflection of using a better test. Third, we are living in a more enlightened time, and gays may be less afraid of exploring their sexual orientation. When previous studies were done there was a great deal more prejudice against gays, and gay persons may have been afraid of openly participating in studies similar to this one. When some of the early studies were done, the American Psychological Association (APA) still listed homosexuality as an illness. To be openly gay and to participate in studies similar to this one in the early 60's and late 70's took courage. It is possible that the gay persons who participated in the earlier studies had a point to make. That is, they wanted to demonstrate to the world that gays were not sick or pathological, so on the basis of self selection, more intelligent gays may have participated in those studies. The APA has made great strides in the last fifteen years in correcting their earlier mistake of listing homosexuality as a mental disorder. This does not remove the stigma of being gay,

but it allows people to explore their sexuality in a less restricted environment (Morin & Rothblum, 1991; Herek, Kimmel, Amaro, & Melton, 1991; Committee, 1991). This study may be a reflection of this more enlightened time. It is possible that the samples used in this study may be more typical of the gay population than the ones used in the past.

Recommendations for Future Research

This study had three limitations that should be addressed in future research. First, the samples used in this study were small. If one is interested in exploring IQ differences between gays and heterosexuals, the size of the samples should be increased. Second, the researcher in this study did not subdivide the samples by gender; so future research should take the effect of gender differences into consideration. Third, the results of this study were based upon samples drawn from a single university; future research should use more diverse samples.

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APPENDIX A
Informed Consent Form

INFORMED CONSENT FORM

The Department of Psychology at Emporia State University Supports the practice of protection for human subjects participating in research and related activities. The following information is provided so that you can decide whether you wish to participate in the present study. You should be aware that even if you agree to participate, you are free to withdraw at any time, and that if you do withdraw from the study, you will not be subjected to reprimand or any other form of reproach.

1. Procedures to be followed in the study, as well as identification of any procedures which are experimental.

Students will be asked to complete a written questionnaire. The purpose of the questionnaire is to obtain demographic information on the students, and to determine their sexual orientation. After the questionnaire has been completed, the students will be asked to take the WAIS-R.

2. Description of any discomforts or other forms of risk involved for students taking part in the study.

The students will be asked to disclose their sexual orientation; this might provoke some anxiety.

The students will be asked to take the WAIS-R, an intelligence test. The WAIS-R can be anxiety provoking and frustrating. All IQ scores will be kept confidential, and even the experimenter will not be able to associate any particular IQ with a student. The students will not receive an assessment of their intelligence.

The names of all students will only appear on the human consent forms. The names of the students will be not used in any other information produced by this study.

3. Description of benefits to be expected from the study.

The purpose of the experiment is to determine if there is a difference in IQ scores between gays and heterosexuals.

"I have read the above statement and have been fully advised of the procedures to be used in this project. I have been given sufficient opportunity to ask any questions I had concerning the procedures and possible risks involved. I understand the potential risks involved and I assume them voluntarily. I likewise understand that I can withdrawal from the study at any time without being subject to reproach."

Subject and/or authorized representative

Date

APPENDIX B
Questionnaire

QUESTIONNAIRE

The purpose of this study is to determine if there is a difference in gay and heterosexual intelligence. The experimenter needs two groups of students: one comprised of gays and the other comprised of heterosexuals. Please provide the following information.

Age:

College Level:

Gender:

Sexual Orientation:

Appendix C
Sign Up Sheet

If you are an undergraduate between the ages of 18 and 30 and would like to participate in my study, please provide your name and number; I'll get back with you in a matter of days.

Name

Number

TO: All Graduate Students Who Submit a Thesis
or Research Problem/ Project as Partial
Fulfillment of the Requirements for an
Advanced Degree.

FROM: Emporia State University Graduate School

I, Milton W. Nokes, hereby submit this thesis/ report to
Emporia State University as a partial fulfillment of the
requirements for an advanced degree. I agree that the
library of the University may make it available for use
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February 25, 1992
Date

IQ Differences Between Gays and
Heterosexuals
Title of Thesis/Research Project

Douglas B. Cooper
Signature of Graduate Office Staff
Member

May 18, 1992
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