Preliminary Testing of The Sell Assessment of Sexual Orientation

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INTRODUCTION

The Kinsey Scale, the most widely known and well-regarded measure of sexual orientation ever developed, has been criticized recently as theoretically flawed and of limited value for research (Kinsey, 1948; Kinsey 1953; McWhirter et al., 1990; Sell, unpublished:a). The Kinsey Scale, first proposed 50 years ago by Alfred Kinsey, classifies subjects along a seven point continuum from heterosexuality to homosexuality (see Table 1). It is the simplicity of this scale, and its consequent inability to make critical distinctions between research subjects that is the basis of the most serious concerns with it.

These concerns are threefold. The first concern is that the Kinsey Scale reduces sexual orientations to a single category based upon multiple attributes of the subject being classified. Kinsey himself determined a subject's sexual orientation based upon their sexual behaviors and sexual attractions. For researchers, when a subject's sexual behavior and sexual attractions do not correspond, a single classification can be difficult to determine and deceptive. For example, a person may report sexual attractions to the same sex only, but report sexual contact with the opposite sex only. Here it is difficult to assign a single Kinsey score and doing so decreases the amount of information available to the investigator.

The second concern with the Kinsey Scale is that it shrouds the diversity of a subject's sexual orientation by lumping individuals with radically different histories of sexual behaviors and/or sexual attractions into the same category. For example, a person with only one same-sex sexual contact and no opposite-sex sexual contacts, and a person reporting hundreds of same-sex sexual contacts and no opposite-sex sexual contacts, would both be classified as "exclusively homosexual." The Kinsey Scale cannot distinguish between these individuals.

The final concern with the Kinsey Scale is that it inappropriately measures homosexuality and heterosexuality on a single continuum making one the tradeoff of the other. This concern arises out of research in the 1970's on masculinity and femininity which found that the concepts of masculinity and femininity are more appropriately measured independently, on separate scales rather than as a single

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Kinsey et al.'s (1948) own terms for these dimensions were "overt sexual experience" and "psychosexual reactions."

bipolar continuum (Bem, 1981). Measured on the same scale, masculinity and femininity acted as tradeoffs in which to be more feminine one had to be less masculine, or to be more masculine one had to be less feminine. Considered as separate dimensions, one could be simultaneously very masculine and very feminine (androgynous), or not very much of either (undifferentiated).

Applying this idea to sexual orientation by assessing homosexuality and heterosexuality on separate scales, subjects can be both very heterosexual and homosexual (bisexual), or not very much of either (asexual).² This idea was first put forth by Shively and DeCecco (1977) who proposed a five point scale on which heterosexuality and homosexuality would be independently measured (see Figure 2). Using this scale they proposed the assessment of two dimensions of sexual orientation: physical and affectional preference. Unfortunately the properties of this scale have never been examined and its use limited.³

While the three concerns with the Kinsey Scale outlined here are very serious, they can be overcome. This has been done in the Sell Assessment of Sexual Orientation (Sell, unpublished:a). The purpose of this paper is to examine the ability of the Sell Assessment to address the limitations of the Kinsey Scale in a test sample.

METHODS

Measure - The Sell Assessment of Sexual Orientation attempts to improve upon the Kinsey Scale by addressing each of the three concerns outlined in the Introduction (see Figure 3). First, the Sell Assessment avoids any difficulties in combining multiple attributes of a subject's sexual orientation by measuring multiple attributes separately. Specifically, the Sell Assessment measures sexual behavior and sexual attraction as proposed by Kinsey, as well as sexual orientation identity. Each of these three attributes provides investigators with valuable information about a subject's sexual orientation.⁴

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² Bullough (1990) echoes this concern with the Kinsey scale in the following statement: "I am, however, at this point in my research, convinced that the Kinsey scale has outlived its political usefulness and we need a more effective scholarly measuring tool. In fact, the Kinsey scale offers the same kind of difficulty that the traditional masculine-feminine scale did until it was realized that women could have masculine traits and still be feminine and vice versa."

No articles using or critically examining the properties of this scale were found during an extensive search of the medical and public health literature.

⁴ I argue that sexual orientation is most accurately assessed by measuring sexual attractions (Sell, unpublished:a). That is, sexual attractions more closely reflect popular conceptualizations of sexual orientation than other attributes such as sexual behavior or sexual orientation identity. I believes that sexual behaviors and sexual orientation identity are best measured in addition to sexual attractions only when there

Second, the Sell Assessment attempts to improve upon the Kinsey Scale by allowing a subject to report the extent of their sexual attractions, sexual behaviors, and sexual orientation identity. For example, questions 1 through 6 explore the frequency and intensity of sexual attractions to the same and opposite sex (see Figure 3). On the Sell Assessment, a subject can report how many different individuals they were sexually attracted to (see questions 1 and 4), how frequently these sexual attractions occurred (see questions 2 and 5), and how intense these attractions may have been (see questions 3 and 6).

Finally, the Sell Assessment attempts to improve upon the Kinsey Scale by assessing homosexuality and heterosexuality independently. For example, when a subject assesses the intensity of their sexual attractions, they do so in relationship to men (see question 3) and women (see question 6) separately. For each question to measure homosexuality, there is a corresponding question to measure heterosexuality. Therefore, the Sell Assessment is comprised of six matching pairs of questions.

Unmodified, the six pairs of questions and responses to the Sell Assessment provide a profile of a subject's sexual orientation. This is, however, more information than many researchers will find necessary for the assessment of a subject's sexual orientation. There are therefore four sets of "summaries" of the Sell Assessment that can be used to simplify data analysis. The first two of these summaries are labeled the Homosexuality Summary and the Heterosexuality Summary. As their names imply, these summaries of responses to the Sell Assessment examine a subject's homosexuality and heterosexuality.

The third and fourth summaries are labeled the Bisexuality Summary and the Asexuality Summary, and were created to account for the interaction between a subject's homosexuality and heterosexuality. Construction of the Homosexuality, Heterosexuality, Bisexuality and Asexuality Summaries is outlined below.

Homosexuality Summary and Heterosexuality Summary- The Homosexuality Summary and Heterosexuality Summary are constructed in the same manner. Construction of the Homosexuality Summary is described here.

is a valid research purpose. For example, a study examining the spread of HIV among homosexual men would want to measure sexual attractions to identify the population of homosexuals, and measure sexual behaviors to identify individuals most at risk for the spread of HIV. The same study may want to measure sexual orientation identity if the results will be used for prevention efforts. That is, individuals who identify as homosexual may be different from and easier to target with prevention efforts than homosexual men (identified as homosexual based upon reported sexual attractions and/or behaviors) who do not identify as homosexual.

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There are six questions in the Sell Assessment which examine homosexuality. Three of these assess homosexual attractions, two assess homosexual contacts and one assesses homosexual identity. The first step in the creation of the Homosexual Summary is the assignment of standardized responses to each of these six questions. These standardized responses are "not at all homosexual," "slightly homosexual," "moderately homosexual," and "very homosexual" (see Figure 4). For example, a man reporting he is "not at all sexually attracted" to men (see Figure 3, question 2) is labeled "not at all homosexual," a man reporting he is "slightly sexually attracted" or "mildly sexually attracted" to men is labeled "slightly homosexual," a man reporting he is "moderately sexually attracted" or "significantly sexually attracted" to men is labeled "moderately homosexual," and a man reporting he is "very sexually attracted" or "extremely sexually attracted" to men is labeled "very homosexual." This process is repeated for each of the remaining 5 questions assessing homosexuality in the Sell Assessment to produce a set of six questions each with a standardized response.

Finally, these six responses are reduced to only three by summarizing the three questions related to sexual attraction and the two related to sexual contact into a single score each.⁵ This is accomplished by taking the highest score from each set of questions. For example a man who is "slightly homosexual" based upon the number of different persons he is sexually attracted to (Figure 3, question 1), "slightly homosexual" based upon the frequency with which he is sexually attracted to the same sex (Figure 3, question 2), but is "moderately homosexual" based upon the intensity of his sexual attractions (Figure 3, question 3), would have his sexual attractions summarized as "moderately homosexual." Similarly, a subject's sexual contacts are summarized by a single score based upon the two questions assessing homosexual contacts. The final result of this summarization is a measure of homosexual attraction, a measure of homosexual contact and a measure of homosexual identity, each with one of four possible standardized responses (not at all homosexual, slightly homosexual, moderately homosexual or very homosexual).

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There is only one question related to homosexual identity, and one related to heterosexual identity. The sexual orientation identity questions therefore cannot be further reduced.

This process is repeated using the six questions measuring heterosexuality from the Sell Assessment to product the Heterosexuality Summary.

Bisexuality Summary and Asexuality Summary- Considering the interaction of the six questions from the Sell Assessment assessing homosexuality and the six corresponding questions assessing heterosexuality (six pairs), a subject's bisexuality and asexuality can be examined to produce a Bisexuality Summary and an Asexuality Summary. Figure 4 shows how this can be done. Here, using the pair of questions assessing the intensity of homosexual and heterosexual sexual attractions, subjects are classified as "not at all bisexual," "slightly bisexual," "moderately bisexual" and "very bisexual." This process is repeated for each of the remaining five sets of corresponding homosexuality/heterosexuality questions to produce three scores measuring bisexual attractions, two measuring bisexual contacts and one measuring bisexual identity. As was explained in the previous section, the multiple questions assessing sexual attraction and the multiple questions assessing sexual contacts can each be reduced to a single score by using the highest score. The Bisexuality Summary is therefore comparable to the Homosexuality and the Heterosexuality Summaries with its set of three standardized responses assessing sexual attractions, sexual contacts and sexual orientation identity.

Like the previous three summaries, the Asexuality Summary assesses three domains: sexual attractions, sexual contacts and sexual orientation identity. However, the Asexuality Summary differs from the other summaries because it is measured dichotomously. That is, subjects are labeled either "not at all asexual," or "asexual." A subject's sexual attractions are labeled "asexual" only if they report no homosexual or heterosexual attractions across all six questions assessing sexual attractions. Similarly, a subject's sexual contacts are labeled "asexual" only if they report no homosexual or heterosexual contacts across all four questions assessing sexual contacts, and finally, a subject's sexual orientation identity is labeled "asexual" only if they report being both "not at all homosexual" and "not at all heterosexual."

Sell Assessment Sexual Orientation Profile- The Homosexuality, Heterosexuality, Bisexuality and Asexuality Summaries provide a profile of a subject's sexual orientation. This profile can be summarized on a grid as shown in Figure 5. On this grid a person's homosexuality, heterosexuality,

bisexuality and asexuality, as measured by their sexual attractions, sexual contacts and sexual orientation identity are presented.

Kinsey Summary- For the examination of construct validity, the Sell Assessment responses can be classified into corresponding Kinsey-type responses. Figure 6 shows how such groupings of Sell Assessment responses can be made. Subjects can be classified as "exclusively heterosexual," "predominantly heterosexual but incidentally homosexual," "predominantly heterosexual but more than incidentally homosexual," "equally heterosexual and homosexual," "predominantly homosexual but more than incidentally heterosexual," "predominantly homosexual but incidentally heterosexual," or "exclusively homosexual." This set of 7 classifications can be applied to each of the six pairs of corresponding homosexuality and heterosexuality questions to produce what is labeled in this document as the "Kinsey Summary." This set of six scores allows for the comparison of the Sell Assessment and Kinsey-type questions to determine construct validity. However, the Kinsey Summary obscures many of the advantages of using the Sell Assessment by re-imposing the limitations of the Kinsey Scale. It is discussed here only for the establishment of construct validity.

Subjects - Three hundred and sixty subjects were sampled from two Internet newsgroups for this study over a two week period in February 1995. Three hundred subjects were sampled from the "alt.politics.homosexuality" newsgroup which provides a forum for discussions about the gay civil rights movement, and 60 subjects were sampled from the "talk.politics.medicine" newsgroup which provides a forum for discussions about the politics and ethics involved with health care. These newsgroups were selected to produce a sample with a broad range of sexual orientations. Sample sizes are based upon results of pre-testing and were determined to provide a final sample of at least 30 "exclusively heterosexual" males based upon Kinsey scoring methods, 30 bisexual males, and 30 "exclusively heterosexual" males.

Hundreds of thousands of Internet users participate in newsgroups with 25 million connected to the Internet itself (Elmer-Dewitt, 1994). Computer network surveys have advantages over other methods of survey administration as they have been shown to increase self-disclosure and response rates, and

provide immediate access to remote locations and individuals (Keisler and Sproull, 1986; Martin and Nagao, 1989; Sproull, 1986; Waterton and Duffy, 1984). It has been hypothesized that an increase in self-disclosure occurs because subjects experience less anxiety interacting with a computer than when responding in other manners (Erdman et al, 1985; Servan-Schreiber and Binik, 1989; Sproull and Kiesler, 1986). This is of particular value when investigating sensitive issues such as sexual orientation where self-disclosure has traditionally been an obstacle.

Design - Using methods proposed by Kiesler and Sproull (1986) the most recent postings to each newsgroup were enumerated and subjects randomly sampled from the enumerated list. Selected individuals were sent an email message informing them of the nature of the study and asking for their participation. Upon their consent, a questionnaire containing demographic information, the Sell Assessment, and corresponding Kinsey-type measures of sexual attraction, sexual contact and sexual orientation identity was sent to them for their completion (see Appendix A). To determine test-retest reliability, the questionnaire (excluding demographic information), was sent a second time to respondents 13-14 days after completion of the first questionnaire.

Data Analysis- The politics.medicine and the politics.homosexuality newsgroups were compared across demographic variables and Sell Assessment questions using the Wilcoxon rank sum test. Subjects from the two newsgroups were then combined for the remaining analyses.

Reliability of the Sell Assessment was determined using a test-retest process. Two weeks after initially completing the survey, respondents were asked to complete the survey once again. The correlation between the test and retest results is a measure of test stability or reliability. It is widely recognized that a scale cannot be considered stable unless its reliability coefficient is greater than 0.5. This is based upon readministering the scale within 2 to 14 days (Streiner and Norman, 1989).

Construct validity is examined by correlating the results of the Kinsey Summary of the Sell Assessment with the Kinsey-type questions of sexual attraction, sexual contact and sexual orientation identity included in the survey. High correlations between these measures is indicative of construct

validity. As with reliability, the higher the correlation the more conclusive the result (Streiner and Norman, 1989).

Finally, subjects' responses to the Sell Assessment were recoded for this analysis into the Homosexuality, Heterosexuality, Bisexuality and Asexuality Summaries as described above and the frequency of each was determined. To compare and contrast the Sell Assessment with more traditional Kinsey-type questions of sexual orientation, the results of the Homosexuality and Heterosexuality Summaries of the Sell Assessment were cross-tabulated with Kinsey-type measures of sexual attraction, sexual contact and sexual orientation identity. Correlations were determined between these variables.

Correlations were estimated throughout this document using Kendall Tau. In all instances, estimated Spearman's rank coefficients and gamma coefficients were even higher than Kendall's Tau, making Kendall's Tau a more conservative estimate of correlation.

RESULTS

Sampling - Three hundred and sixty subjects were selected from the two newsgroups for study. Of these, nine could not be contacted (two of which posted anonymously, and seven of which had addresses to which email could not be delivered) resulting in a total sample size of 351 (see Table 1). Of these, 232 (66.1%) wrote back requesting a survey, and 198 (56.4%) completed the survey. Of subjects completing the survey, 177 (89.4%) were men, and 21 (10.6%) were women. Not enough women were sampled to make valid inferences concerning them and they were excluded from this analysis.

Twenty-nine of the 177 men were from the politics.medicine newsgroup and 148 were from the politics.homosexuality newsgroup. Most (23) of the politics.medicine respondents reported themselves as "exclusively heterosexual" on the Kinsey-type measure of sexual attraction. Because these subjects were similar to the 40 men in the politics.homosexuality newsgroup who reported themselves as "exclusively heterosexual," the two groups were combined for this analysis. Across demographic and Sell Assessment responses, only age was found to be significantly different between the two groups (Wilcoxon rank sum

test, p=0.03). The median age among respondents from the politics.medicine newsgroup was 30-34 years, while the median age among respondents from the politics.homosexuality newsgroup was 25-29 years.

Of the 177 men participating, 152 (85.9%) completed the retest. Mean time between test and retest was 15 days with a range of retest periods from 13 to 28 days.

Demographics - Respondents reported ages across all categories with a median age in the 30-34 year range (see Table 2). Subjects were overwhelmingly white (85.9%) and highly educated, with over half completing at least 4 years of college (see Table 2). Subjects were geographically dispersed, with almost a quarter coming from outside the United States (10.2% from Canada, 5.6% from the United Kingdom, and 7.2% coming from other countries). Finally, a fifth (19.2%) of the subjects resided in areas with populations of under 50,000, while just over a third (36.2%) resided in cities with populations in excess of 250.000.

Reliability and Validity - All test-retest correlations were extremely high with values ranging upward from 0.93 for the correlation between reported heterosexual identity in the test and reported heterosexual identity in the retest (see Table 3). This is a strong indication of the reliability of the Sell Assessment questions.

The correlations between the Kinsey Summary of the Sell Assessment questions and the corresponding Kinsey-type measures of sexual attraction, sexual contact and sexual orientation identity were all very high. Correlations ranged upward from 0.85 for the correlation between the Kinsey Summary of the Sell Assessment questions measuring sexual orientation identity, and the Kinsey-type measure of sexual orientation identity (see Table 4). These high correlations are an indication of the Sell Assessment's construct validity.

SELL ASSESSMENT: Homosexuality Summary and Heterosexuality Summary - Results of the Homosexuality and Heterosexuality Summaries of the Sell Assessment are presented in Table 5.6 The most important finding to highlight is the proportion of subjects classified as "not" homosexual or "not" heterosexual. This proportion is different across the sexual attraction, sexual behavior and sexual orientation identity domains. A researcher identifying subjects that were at least "slightly homosexual" would identify 46.9% of the sample based upon the sample's sexual behaviors, 55.4% of the sample based upon their sexual orientation identities and 62.7% of the sample based upon their sexual attractions. The Kinsey Scale, which usually combines these three domains into a single value would obscure these differences.

Tables 6, 7 and 8 were created to further highlight the differences between the Kinsey Scale and the Sell Assessment. Here the variability of individuals in a single Kinsey category can be examined across the Homosexuality and Heterosexuality Summaries of the Sell Assessment. For example, subjects that would be labeled as "exclusively homosexual" based upon their Kinsey Scores are distributed across the Homosexuality and Heterosexuality Summaries as shown in Table 7. The magnitude of the correlations between these variables is always high (with the lowest being 0.75). This indicates that, to a large degree, the Sell Assessment is measuring the same thing that the Kinsey Scale is measuring. The Sell Assessment, however, allows for much more variability among subjects than Kinsey type measures of sexual orientation.

SELL ASSESSMENT: Bisexuality and Asexuality Summary - Results of the Bisexuality and Asexuality Summaries of the Sell Assessment are presented in Table 9. As with the Homosexuality and Heterosexuality Summaries, the most interesting finding is the variability in the proportion of subjects classified as at least slightly bisexual or asexual across the sexual attraction, sexual contact and sexual orientation identity domains. Examining bisexuality, 9.5% of the subjects are at least slightly bisexual based upon their sexual behaviors, 23.8% are at least slightly bisexual based upon their sexual orientation identities and 34.6% are bisexual based upon their sexual attractions. Further, only 1.1% of subjects are

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⁶ Appendix B contains the one-way frequencies and crosstabulations of the Sell Assessment questions and Kinsey-type questions. It

asexual based upon their sex attractions, 3.4% are asexual based upon their sexual orientation identity, while 12.4% are asexual based upon their sexual behaviors.

Other Results - Respondents were asked to report how frequently they thought of sex (see Appendix A, question 24) to determine how our sample compared with a nationally representative sample on a question related to the Sell Assessment questions. Seventy-six percent of our sample reports thinking about sex at least daily (see Table 10). The subjects selected from the politics.homosexuality newsgroup and the politics.medicine newsgroup were equally as likely to think about sex on a daily basis (76.3% and 75.9% respectively).

Virtually all respondents (97.7%), when thinking about who they were sexually attracted to during the previous year, considered individuals they had met or knew personally, while 73.4% also considered individuals they only experienced through media sources such as print, television or the movies (see Table 10).

DISCUSSION

The assessment of sexual orientation is becoming ever more prevalent in research studies as serious interest in this subject grows (Sell, unpublished:b). However, methods to assess sexual orientations have not been thoroughly examined, and the ability of some methods to accurately assess sexual orientations questioned. The Kinsey Scale, the most well-regarded measure of sexual orientation, has not avoided these questions and concerns. In response, the Sell Assessment was created. Specifically, the Sell Assessment was created to provide a measure of sexual orientation that: 1) measured different attributes of a subject's sexual orientation separately (sexual attraction, sexual behavior, and sexual orientation identity), 2) allowed for the determination of degrees of sexual orientation (not at all, slightly, moderately, and very), and 3) measured homosexuality and heterosexuality independently.

I have shown here how the Sell Assessment addresses these issues. First, by measuring sexual attraction, sexual behavior, and sexual orientation identity, the Sell Assessment measures separate

is from this raw data that the results presented on this and the following pages are derived from.

dimensions of sexual orientation independently. The degree to which this is of value to researchers is apparent from the degree to which each of these dimensions provides different information. For example, if a researcher wanted to identify subjects in this sample who were at least slightly homosexual, they would identify the least proportion of this sample based upon sexual behaviors, the next least based upon sexual orientation identities and the largest proportion based upon sexual attractions.

Second, the Sell Assessment allows subjects to report degrees of homosexuality and heterosexuality. For example, while some subjects could be classified as only "slightly homosexual" based upon their sexual attractions, sexual behaviors, or sexual orientation identities, other could be classified as "moderately homosexual" or even "very homosexual." For example, based upon their sexual attractions, 4.5% of subjects were classified as slightly homosexual, 10.7% as moderately homosexual and 47.5% as very homosexual.

Third, the Sell Assessment measures a subject's homosexuality and heterosexuality independently. Unlike on the Kinsey Scale, this allowed subjects in this sample to be classified as "asexual", "slightly bisexual," "moderately bisexual," or "very bisexual." For example, based upon sexual attractions, we found that 1.1% of subjects were asexual, 1.7% were slightly bisexual, 12.4% were moderately bisexual, and 20.3% were very bisexual.

Finally, the advantages of the Sell Assessment over the Kinsey Scale are apparent when we examine the variability found in the Sell Assessment for subjects with identical Kinsey Scores. For example, subjects who were classified on a Kinsey-type scale as "predominately heterosexual, only incidentally homosexual" based upon their sexual attractions, were found to have extensive variability on the Sell Assessment. Thirty-six percent of these individuals were "not at all homosexual," while 27.3% were "slightly homosexual" and 36.4% were "moderately homosexual." Further, 9.1% of these subjects were found to be only "slightly heterosexual," while 27.3% were "moderately heterosexual," and 63.6% were "very heterosexual."

While the Sell Assessment clearly provides different and additional information than Kinsey-type measures of sexual orientation as has been shown above, the Sell Assessment is of little value if it is not reliable and valid. Correlating the findings of the initial administration of the test with the retest produced

very high correlations indicating the reliability or stability of the Sell Assessment. Further, correlations between the Kinsey Summary of the Sell Assessment and Kinsey-type questions were all found to be high providing evidence of the Sell Assessment's construct validity.

Therefore, at least in this sample, there is evidence of the validity and reliability of the Sell Assessment. However, the validity and reliability of the Sell Assessment must be examined in additional samples before it can be confirmed. This sample was not intended to be representative of the general population and only includes males selected from a computer network who were at least 18 years of age. The sampled subjects were also more likely to think about sex at least daily (75%) than subjects in a nationally representative sample (54%; Laumann, 1994).

Further this study found that the Sell Assessment may be improved by telling people before they answer the sexual attraction questions to additionally consider individuals they were sexually attracted to, but only had access to through media sources (TV, movies, magazine, or newspaper). While 73% of respondents said that they considered individuals from such sources when answering these questions, about one-quarter did not. These subjects may not have been sexually attracted to people they only know from these sources. On the other hand, they may simply have not thought to consider these individuals, or thought the questions did not apply to such attractions.

For researchers wanting more detailed and accurate assessments of sexual orientations than the Kinsey Scale can provide, the Sell Assessment is an attractive alternative. Specifically, the Sell Assessment can make distinctions between subjects based upon their sexual orientation that the Kinsey Scale cannot. Further, because it is modular, researchers can use sections of the Sell Assessment as they are required. For example, researchers can use questions from the Sell Assessment to measure sexual attractions, sexual orientation identity or sexual behaviors. They may also choose to measure homosexuality or heterosexuality by asking only the appropriate Sell Assessment questions. However researchers choose to use the Sell Assessment its advantages over the more simplistic Kinsey method of sexual orientation measurement are clear.

Researchers examining the sexual orientation of subjects must become more cognizant of the questions and measures they use to identify and classify sexual orientations. The Sell Assessment was

designed in part to make researchers aware of the limitations of the measures they may be using, and suggest questions they may use to better assess sexual orientations in the future.

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FIGURES

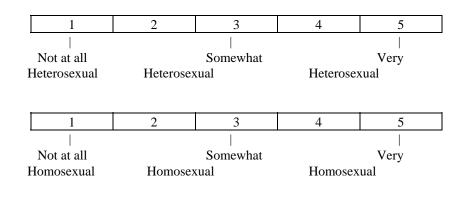
Figure 1 - The Kinsey Scale of Sexual Orientation.1

- 0 Exclusively heterosexual- Individuals who make no physical contacts which result in erotic arousal or orgasm, and make no psychic responses to individuals of their own sex.
- 1 Predominantly heterosexual/only incidentally homosexual- Individuals which have only incidental homosexual contacts which have involved physical or psychic response, or incidental psychic response without physical contact.
- 2 Predominantly heterosexual but more than incidentally homosexual- Individuals who have more than incidental homosexual experience, and/or if they respond rather definitively to homosexual stimuli.
- 3 Equally heterosexual and homosexual- Individuals who are about equally homosexual and heterosexual in their overt experience and/or their psychic reactions.
- 4 Predominantly homosexual but more than incidentally heterosexual- Individuals who have more overt activity and/or psychic reactions in the homosexual, while still maintaining a fair amount of heterosexual activity and/or responding rather definitively to heterosexual contact.
- 5 Predominantly homosexual/only incidentally heterosexual- Individuals who are almost entirely homosexual in their overt activities and/or reactions.
- 6 Exclusively homosexual - Individuals who are exclusively homosexual, both in regard to their overt experience and in regard to their psychic reactions.

Notes:

^{1 -} Adapted from: Kinsey AC, Pomeroy WB, Martin CE. Sexual Behavior in the Human Male. Philadelphia: WB Saunders, 1948.

Figure 2 - The Shively Sexual Orientation Scale.¹



Notes:

^{1 -} From: Shively MG, DeCecco JP. Components of Sexual Identity. *Journal of Homosexuality*. 1977;3(1):41-48.

Figure 3 - The Sell Assessment of Sexual Orientation

I. Sexual Attractions - The following six questions are asked to assess how frequently and intensely you are sexually attracted to men and women. Consider times you had sexual fantasies, daydreams or dreams about a man or woman, or have been sexually aroused by a man or woman.

1. During the <u>past year</u>, how many <u>different men</u> were you sexually attracted to (choose one answer):

a. None.
b. 1.
c. 2.
d. 3-5.
e. 6-10.
f. 11-49.
g. 50-99.
h. 100 or more.
2. During the past year, on average, how often were you sexually attracted to a man (choose one answer):
a. Never.
b. Less than 1 time per month.
c. 1-3 times per month.
d. 1 time per week.
e. 2-3 times per week.
f. 4-6 times per week.
g. Daily.
g. Dung.
3. During the <u>past year</u> , the most I was sexually attracted to a <u>man</u> was (choose one answer): a. Not at all sexually attracted. b. Slightly sexually attracted. c. Mildly sexually attracted. d. Moderately sexually attracted. e. Significantly sexually attracted. f. Very sexually attracted. g. Extremely sexually attracted. 4. During the <u>past year</u> , how many different <u>women</u> were you sexually attracted to (choose one answer): a. None. b. 1. c. 2. d. 3-5. e. 6-10. f. 11-49. g. 50-99. h. 100 or more.
5. During the <u>past year</u> , on average, how often were you sexually attracted to a <u>woman</u> (choose one answer): a. Never. b. Less than 1 time per month. c. 1-3 times per month.

d. 1 time per week.

e. 2-3 times per week. f. 4-6 times per week. g. Daily.
6. During the <u>past year</u> , the most I was sexually attracted to a <u>woman</u> was (choose one answer): a. Not at all sexually attracted. b. Slightly sexually attracted. c. Mildly sexually attracted. d. Moderately sexually attracted. e. Significantly sexually attracted. f. Very sexually attracted. g. Extremely sexually attracted.
II. Sexual Contact - The following four questions are asked to assess your sexual contacts. Consider times you had contact between your body and another man or woman's body for the purpose of sexual arousal or gratification.
1. During the past year, how many different men did you have sexual contact with (choose one answer): a. None. b. 1. c. 2. d. 3-5. e. 6-10. f. 11-49. g. 50-99. h. 100 or more.
2. During the past year, on average, how often did you have sexual contact with a man (choose one answer): a. Never. b. Less than 1 time per month. c. 1-3 times per month. d. 1 time per week. e. 2-3 times per week. f. 4-6 times per week. g. Daily.
3. During the past year, how many different women did you have sexual contact with (choose one answer): a. None. b. 1. c. 2. d. 3-5. e. 6-10. f. 11-49. g. 50-99. h. 100 or more.

- 4. During the <u>past year</u>, on average, how often did you have sexual contact with a <u>woman</u> (choose one answer):
- a. Never.
- b. Less than 1 time per month.
- c. 1-3 times per month.
- d. 1 time per week.
- e. 2-3 times per week.
- f. 4-6 times per week.
- g. Daily.

III. Sexual Orientation Identity - The following two questions are asked to assess your sexual orientation identity.

- 1. I consider myself (choose one answer):
- a. Not at all homosexual.
- b. Slightly homosexual.
- c. Mildly homosexual.
- d. Moderately homosexual.
- e. Significantly homosexual.
- f. Very homosexual.
- g. Extremely homosexual.
- 2. I consider myself (choose one answer):
- a. Not at all heterosexual.
- b. Slightly heterosexual.
- c. Mildly heterosexual.
- d. Moderately heterosexual.
- e. Significantly heterosexual.
- f. Very heterosexual.
- g. Extremely heterosexual.

Figure 4 - Homosexuality, Heterosexuality, Bisexuality and Asexuality Summaries of male responses to sexual attraction intensity questions from the Sell Assessment.

Intensity of Sexual Attraction to Women:

	intensity of	Settitett 1 1tt: etc	mon to monte					
Intensity of Sexual	Not at all	Slightly	Mildly	Moder-	Signif-	Very	Ex-tremely	
Attraction to Men:				ately	icantly			TOTAL
Not at all	0	1	1	1	1	1	1	A
Slightly	1	2	2	2	3	3	3	В
Mildly	1	2	2	3	3	3	3	В
Moderately	1	2	3	3	3	3	4	С
Significantly	1	3	3	3	3	4	4	С
Very	1	3	3	3	4	4	4	D
Extremely	1	3	3	4	4	4	4	D
TOTAL	Е	F	F	G	G	Н	Н	

KEY:

Homosexuality	Heterosexuality	Bisexuality	Asexuality
Summary:	Summary:	Summary:	Summary:
A- Not at all Homosexual	E- Not at all Heterosexual	0, 1- Not at all Bisexual	1, 2, 3, 4 - Not at all Asexual
B- Slightly Homosexual	F- Slightly Heterosexual	2- Slightly Bisexual	0 - Asexual
C- Moderately Homosexual	G- Moderately Heterosexual	3- Moderately Bisexual	
D- Very Homosexual	H- Very Heterosexual	4- Very Bisexual	

Figure 5 - Sell Assessment Sexual Orientation Profile using the Homosexuality, Heterosexuality, Bisexuality and Asexuality Summaries of the Sell Assessment as suggested in Figure 4.

	Homosexuality	Heterosexuality	Bisexuality	Asexuality
Domains Assessed:	Summary	Summary	Summary	Summary
Sexual Attraction				
Sexual Behavior				
Sexual Orientation Identity				

Figure 6 - Kinsey Summaries of male responses to sexual attraction intensity questions from the Sell Assessment.

Intensity of Sexual Attraction to Women:

Intensity of Sexual	Not at all	Slightly	Mildly	Moder-	Signif-	Very	Ex-tremely
Attraction to Men:				ately	icantly		
Not at all	0	1	1	1	1	1	1
Slightly	7	4	3	3	2	2	2
Mildly	7	5	4	3	3	2	2
Moderately	7	5	5	4	3	3	2
Significantly	7	6	5	5	4	3	3
Very	7	6	6	5	5	4	3
Extremely	7	6	6	6	5	5	4

KEY:

Kinsey

Summary:

- 0 Asexual
- 1 Exclusively Heterosexual
- 2 Predominantly heterosexual/only incidentally homosexual
- 3 Predominantly heterosexual but more than incidentally homosexual
- 4 Equally heterosexual and homosexual
- 5 Predominantly homosexual but more than incidentally heterosexual
- 6 Predominantly homosexual/only incidentally heterosexual
- 7 Exclusively Homosexual

TABLES

Table 1 - Results of sampling: males and females.

	Total	Total	Total	Total	Total
	Sample	Contacted ¹	Requesting	Completing	Completing
	Size		Survey	Survey	Re-Test
Newsgroup:	Count	Count	Count % ²	Count % ²	Count % ²
politics.homosexuality	300	293	197 67.2	168 57.3	144 49.1
politics.medicine	60	58	35 60.3	30 51.7	26 44.8
Total	360	351	232 66.1	198 56.4	170 49.0

- 1 Not all individuals sampled could be contacted using the email system. In such cases, emails were returned to the investigator as undeliverable.
- 2 Percent of total contacted.

 Table 2 - Age and educational distribution of male respondents.

AGE:	Count	%
18-19	16	9.0
20-24	34	19.2
25-29	31	17.5
30-34	37	20.9
35-39	15	8.5
40-44	13	7.3
45-49	15	8.5
50-54	7	4.0
55-59	5	2.8
60-64	1	0.6
65+	3	1.7
Total	177	100.0
EDUCATION:	Count	%
Grade School	1	0.6
High School	16	9.0
Trade/Tech/Vocational	7	4.0
Some College	51	28.8
Some College Two-Year College	51	28.8 1.7
_		
Two-Year College	3	1.7
Two-Year College Four-Year College	3 33	1.7 18.6
Two-Year College Four-Year College Some Graduate School	3 33 26	1.7 18.6 14.7
Two-Year College Four-Year College Some Graduate School Graduate School	3 33 26 36	1.7 18.6 14.7 20.3

Table 3 - Test/retest correlations of Sell Assessment questions.

	Correlation
SELL ASSESSMENT QUESTIONS: 1	Coefficient ²
1. Number of men sexually attracted to	0.94
2. Frequency of sexual attraction to men	0.95
3. Intensity of sexual attraction to men	0.95
4. Number of women sexually attracted to	0.95
5. Frequency of sexual attraction to women	0.94
6. Intensity of sexual attraction to women	0.94
7. Number of men sexual contact with	0.97
8. Frequency of sexual contact with men	0.97
9. Number of women sexual contact with	0.98
10. Frequency of sexual contact with women	0.96
11. Homosexual identity	0.94
12. Heterosexual identity	0.93

- 1 Total sample size for each row is 152.
 2 Correlations are determined using Kendall's Tau. All correlations were found to have p<0.0001

Table 4 - Correlations between the Kinsey Summaries of Sell Assessment responses with Kinsey-type measures of sexual attraction, sexual contact and sexual orientation identity.

	Kinsey-Type Measures of Sexual Attraction, Sexual Contact and Sexual Orientation Identity: ²						
Kinsey Summary of Sell Assessment Responses: ¹	Sexual Attraction	Sexual Contact	Sexual Orientation Identity				
Sexual Attraction 1) Number of Different Partners							
Attracted to	0.92						
2) Frequency of Attractions	0.91						
3) Intensity of Attractions	0.86						
Sexual Contact							
1) Number of Different Partners Sexual							
Contact with		0.96					
2) Frequency of Sexual Contact		0.96					
Sexual Orientation Identity							
1) Self-reported Identity			0.85				

- 1 Total sample size for each row is 152.
- 2 Correlations are determined using Kendall's Tau. All correlations were found to have p<0.0001

 Table 5 - Results of Homosexuality and Heterosexuality Summarizations of the Sell Assessment.

	Homosexi	Homosexuality and Heterosexuality Summarizations of the Sell Assessment: 1									
	Homosexi	uality Summar	<i>y</i> :		Heterosex	Heterosexuality Summary:					
Domains Assessed:	Not	Slight	Moderate	Very	Not	Slight	Moderate	Very			
Sexual Attraction	37.3%	4.5%	10.7%	47.5%	27.7%	10.2%	12.4%	49.2%			
Sexual Contact	53.1	10.2	24.9	11.9	49.7	15.3	21.5	13.6			
Sexual Orientation Identity	44.6	7.3	8.5	39.5	35.0	10.7	7.3	46.9			

^{1 -} Total sample size is 177 for each row of the Homosexuality Summary, and 177 for each row of the Heterosexuality Summary. Further, row percentages total 100% for the Homosexuality Summary and 100% for the Heterosexuality Summary.

Table 6 - A comparison of the sexual attraction domain from the Homosexuality and Heterosexuality Summaries with responses to a Kinsey-type measure of sexual attraction.

		Sexual At	traction Doma	ins from the Hor	nosexuality o	and Heterosexi	Heterosexuality Summaries: ¹			
		Homosexi	Homosexuality Summary: ²				uality Summar	y: ³		
Kinsey-type Measure of Sexual Attraction:	Count	Not	Slight	Moderate	Very	Not	Slight	Moderate	Very	
Exclusively homosexual	54	0.0%	1.9%	7.4%	90.7%	83.3%	13.0%	1.9%	1.9%	
Pred. homosexual, only incidentally heterosexual	19	0.0	0.0	10.5	89.5	10.5	21.1	57.9	10.5	
Pred. homosexual, but more than incidentally heterosexual	10	0.0	0.0	30.0	70.0	0.0	10.0	20.0	70.0	
Equally heterosexual and homosexual	7	0.0	14.3	14.3	71.4	0.0	14.3	0.0	85.7	
Pred. heterosexual, but more than incidentally homosexual	9	0.0	0.0	44.4	55.6	0.0	11.1	0.0	88.9	
Pred. heterosexual, only incidentally homosexual	11	36.4	27.3	36.4	0.0	0.0	9.1	27.3	63.6	
Exclusively heterosexual	63	92.1	4.8	1.6	1.6	0.0	1.6	8.1	90.3	

- 1- Row percentages total 100% for the Homosexuality Summary and 100% for the Heterosexuality Summary.
- 2- The Kendall Tau correlation between the sexual attraction domain from the Homosexuality Summary and the Kinsey-type measure of sexual attraction is 0.79 (p<0.0001).
- 3- The Kendall Tau correlation between the sexual attraction domain from the Heterosexuality Summary and the Kinsey-type measure of sexual attraction is 0.75 (p<0.0001).

Table 7 - A comparison of the sexual contact domain from the Homosexuality and Heterosexuality Summaries with responses to a Kinsey-type measure of sexual contact.

		Sexual Co	ntact Domain.	s from the Homo	sexuality and	l Heterosexual	Heterosexuality Summaries: ¹			
		Homosexuality Summary: ²				Heterosexuality Summary: ³				
Kinsey-type Measure of Sexual Contact:	Count	Not	Slight	Moderate	Very	Not	Slight	Moderate	Very	
Exclusively homosexual	65	0.0%	15.4%	53.9%	30.8%	100.0%	0.0%	0.0%	0.0%	
Pred. homosexual, only incidentally heterosexual	3	0.0	33.3	33.3	33.3	0.0	100.0	0.0	0.0	
Pred. homosexual, but more than incidentally heterosexual	2	0.0	0.0	100.0	0.0	0.0	100.0	0.0	0.0	
Equally heterosexual and homosexual	3	0.0	66.7	33.3	0.0	0.0	33.3	66.7	0.0	
Pred. heterosexual, but more than incidentally homosexual	5	0.0	40.0	60.0	0.0	0.0	0.0	80.0	20.0	
Pred. heterosexual, only incidentally homosexual	7	42.9	42.9	14.3	0.0	0.0	42.9	14.3	42.9	
Exclusively heterosexual	68	100.0	0.0	0.0	0.0	0.0	25.0	42.6	29.4	

- 1- Row percentages total 100% for the Homosexuality Summary and 100% for the Heterosexuality Summary.
- 2- The Kendall Tau correlation between the sexual contact domain from the Homosexuality Summary and the Kinsey-type measure of sexual contact is -0.84 (p<0.0001).
- 3- The Kendall Tau correlation between the sexual contact domain from the Heterosexuality Summary and the Kinsey-type measure of sexual contact is 0.79 (p<0.0001).

Table 8 - A comparison of the sexual orientation identity domain from the Homosexuality and Heterosexuality Summaries with responses to a Kinsey-type measure of sexual orientation identity.

		Sexual Orientation Identity Domains from the Homo Homosexuality Summary: ²				sexuality and Heterosexuality Summaries: ¹ Heterosexuality Summary: ³			
		Homosexuality Summary:							
Kinsey-type Measure of Sexual Orientation Identity:	Count	Not	Slight	Moderate	Very	Not	Slight	Moderate	Very
Exclusively homosexual	52	1.9%	0.0%	11.5%	86.5%	96.2%	3.9%	0.0%	0.0%
Pred. homosexual, only incidentally heterosexual	20	5.0	5.0	5.0	85.0	30.0	65.0	0.0	5.0
Pred. homosexual, but more than incidentally heterosexual	7	0.0	28.6	57.1	14.3	0.0	42.9	28.6	28.6
Equally heterosexual and homosexual	10	10.0	10.0	30.0	50.0	10.0	0.0	50.0	40.0
Pred. heterosexual, but more than incidentally homosexual	3	66.7	0.0	33.3	0.0	33.3	0.0	66.7	0.0
Pred. heterosexual, only incidentally homosexual	14	57.1	42.9	0.0	0.0	0.0	7.1	14.3	78.6
Exclusively heterosexual	67	95.5	3.0	0.0	1.5	1.5	0.0	1.5	97.0

- 1- Row percentages total 100% for the homosexuality columns and 100% for the heterosexuality columns.
- 2- The Kendall Tau correlation between the sexual orientation identity domain from the Homosexuality Summary and the Kinsey-type measure of sexual orientation identity is -0.79 (p<0.0001).
- 3- The Kendall Tau correlation between the sexual orientation identity domain from the Heterosexuality Summary and the Kinsey-type measure of sexual orientation identity is 0.85 (p<0.0001).

 Table 9 - Results of Bisexuality and Asexuality Summarizations of the Sell Assessment.

	Sell Assessment Measures of Bisexuality and Asexuality: 1							
	Bisexuality Summary:				Asexuality Summary:			
Domains Assessed:	Not	Slight	Moderate	Very	Not	Asexual		
Sexual Attraction	65.6	1.7	12.4	20.3	98.9	1.1		
Sexual Contact	90.5	3.9	5.6	0.0	87.6	12.4		
Sexual Orientation Identity	76.2	0.6	19.2	4.0	96.6	3.4		

^{1 -} Total sample size is 177 for each row of the Bisexuality Summary, and 177 for each row of the Asexuality Summary. Further, row percentages total 100% for the Bisexuality Summary and 100% for the Asexuality Summary.

 Table 10 - Frequency of thinking about sex and origin of objects of sexual attraction.

	Newsgroup:		
	politics.	politics.	
	homosexuality	medicine	total
	n=148	n=29	n=177
Frequency of Sex Thought:	%	%	%
Never	2.7	0.0	2.3
Less than once a month	2.0	3.4	2.3
One to a few times a month	3.4	10.3	4.5
One to a few times a week	15.5	10.3	14.7
Every day	27.0	20.7	26.0
Several times a day	49.3	55.2	50.3
	0.4	0.4	0.4
Origin of Objects of Sexual Attraction:	%	%	%
Real Life	97.3	100.0	97.7
Media	76.4	58.6	73.4

APPENDIX A - SEI	LL ASSESSMENT	OF SEXUAL OR	IENTATION QUE	ESTIONNAIRE

APPENDIX A - SELL ASSESSMENT OF SEXUAL ORIENTATION QUESTIONNAIRE

Thank you for agreeing to participate in this study. Attached is the 29 item questionnaire I discussed in my introductory letter to you.

All methods of identifying you with your answers to this survey will be removed once I have received them, but, there is a remote chance that your responses could be intercepted before they have reached my mail box (as any of your email to any other individual could theoretically be intercepted). While this is highly unlikely, if you are concerned about the confidentiality of your responses to this survey, please respond using conventional mail.

Please email responses to:

rls@hsph.harvard.edu or rsell@aol.com

or send responses using conventional mail to:

Randall L. Sell Harvard School of Public Health Department of Health Policy and Management, 4th Floor 677 Huntington Avenue Boston, MA 02115

Please feel free to contact me if you have any questions about filling out this questionnaire, or if you do not understand any of the terms used in the questionnaire. It is very important that you read each question carefully, answer truthfully, and do not skip any questions.

- **I. Demographic Characteristics -** The following seven questions are asked to provide some background information about yourself.
- 1. What is your biological sex (choose one answer):
- a. Male. b. Female.
- 2. What age group are you in (choose one answer):

a. 17 or under.	e. 30-34.	i. 50-54.
b. 18-19.	f. 35-39.	j. 55-59.
c. 20-24.	g. 40-44.	k. 60-64
d. 25-29.	h. 45-49.	1. 65+.

- * Participants must be at least 18 years of age. If you are under 18 years of age, please stop here and only forward responses to the first two questions.
- 3. What country are you a citizen of: (please specify)_____
- 4. Which of the following categories best describes the place you are currently living:
- a. In open country, but not on a farm.
- b. On a farm.
- c. In a small city or town (under 50,000)
- d. In a medium size city (50,000-250,000)
- e. In a suburb near a large city.
- f. In a large city (over 250,000)
- g. Not Sure.
- 5. Do you consider yourself:
- a. White.

b. Black. c. Oriental/Asian or Pacific Islander. d. American Indian or Alaskan Native. e. Not sure. f. Other (please specify)
6. Do you consider yourself: a. Hispanic. b. Not Hispanic. c. Not sure. d. Other (please specify)
7. What level of education have you completed (choose one answer): a. Grade school. b. Middle school. c. High school. d. Trade/technical/vocational school. e. Some college. f. Two-year college graduate. g. Four-year college graduate. h. Some graduate school. i. Graduate school. j. Not sure. k. Other (please specify)
II. Sexual Attractions - The following seven questions are asked to assess how frequently and intensely you are sexually attracted to men and women. Consider times you had sexual fantasies, daydreams or dreams about a man or woman, or have been sexually aroused by a man or woman.
8. During the <u>past year</u> , my sexual attractions have been (choose one answer): a. I have had no sexual attractions during the past year. b. Exclusively homosexual. c. Predominately homosexual, only incidentally heterosexual. d. Predominately homosexual, but more than incidentally heterosexual. e. Equally heterosexual and homosexual. f. Predominately heterosexual, but more than incidentally homosexual. g. Predominately heterosexual, only incidentally homosexual. h. Exclusively heterosexual.
9. During the past year, how many different men were you sexually attracted to (choose one answer): a. None. b. 1. c. 2. d. 3-5. e. 6-10. f. 11-49. g. 50-99. h. 100 or more.
10. During the <u>past year</u>, on average, how often were you sexually attracted to a <u>man</u> (choose one answer):a. Never.b. Less than 1 time per month.c. 1-3 times per month.

d. 1 time per week.

- e. 2-3 times per week.
- f. 4-6 times per week.
- g. Daily.
- 11. During the past year, the most I was sexually attracted to a man was (choose one answer):
- a. Not at all sexually attracted.
- b. Slightly sexually attracted.
- c. Mildly sexually attracted.
- d. Moderately sexually attracted.
- e. Significantly sexually attracted.
- f. Very sexually attracted.
- g. Extremely sexually attracted.
- 12. During the past year, how many different women were you sexually attracted to (choose one answer):
- a. None.
- b. 1.
- c. 2.
- d. 3-5.
- e. 6-10.
- f. 11-49.
- g. 50-99.
- h. 100 or more.
- 13. During the past year, on average, how often were you sexually attracted to a woman (choose one answer):
- a. Never.
- b. Less than 1 time per month.
- c. 1-3 times per month.
- d. 1 time per week.
- e. 2-3 times per week.
- f. 4-6 times per week.
- g. Daily.
- 14. During the past year, the most I was sexually attracted to a woman was (choose one answer):
- a. Not at all sexually attracted.
- b. Slightly sexually attracted.
- c. Mildly sexually attracted.
- d. Moderately sexually attracted.
- e. Significantly sexually attracted.
- f. Very sexually attracted.
- g. Extremely sexually attracted.
- III. Sexual Orientation Identity The following four questions are asked to assess your sexual orientation identity.
- 15. I consider myself (choose one answer):
- a. I do not identify with any sexual orientation.
- b. Exclusively homosexual.
- c. Predominately homosexual, only incidentally heterosexual.
- d. Predominately homosexual, but more than incidentally heterosexual.
- e. Equally heterosexual and homosexual.
- f. Predominately heterosexual, but more than incidentally homosexual.
- g. Predominately heterosexual, only incidentally homosexual.

- h. Exclusively heterosexual.
- 16. I consider myself (choose one answer):
- a. Not at all homosexual.
- b. Slightly homosexual.
- c. Mildly homosexual.
- d. Moderately homosexual.
- e. Significantly homosexual.
- f. Very homosexual.
- g. Extremely homosexual.
- 17. I consider myself (choose one answer):
- a. Not at all heterosexual.
- b. Slightly heterosexual.
- c. Mildly heterosexual.
- d. Moderately heterosexual.
- e. Significantly heterosexual.
- f. Very heterosexual.
- g. Extremely heterosexual.
- 18. I consider myself (choose one answer):
- a. Not at all bisexual.
- b. Slightly bisexual.
- c. Mildly bisexual.
- d. Moderately bisexual.
- e. Significantly bisexual.
- f. Very bisexual.
- g. Extremely bisexual.
- **IV. Sexual Contact -** The following five questions are asked to assess your sexual contacts. Consider times you had contact between your body and another man or woman's body for the purpose of sexual arousal or gratification.
- 19. During the <u>past year</u>, my sexual contacts have been (choose one answer):
- a. I have not had any sexual contacts during the past year.
- b. Exclusively homosexual.
- c. Predominately homosexual, only incidentally heterosexual.
- d. Predominately homosexual, but more than incidentally heterosexual.
- e. Equally heterosexual and homosexual.
- f. Predominately heterosexual, but more than incidentally homosexual.
- g. Predominately heterosexual, only incidentally homosexual.
- h. Exclusively heterosexual.
- 20. During the past year, how many different men did you have sexual contact with (choose one answer):
- a. None.
- b. 1.
- c. 2.
- d. 3-5.
- e. 6-10.
- f. 11-49.
- g. 50-99.
- h. 100 or more.
- 21. During the past year, on average, how often did you have sexual contact with a man (choose one answer):
- a. Never.
- b. Less than 1 time per month.

c. 1-3 times per month. d. 1 time per week. e. 2-3 times per week. f. 4-6 times per week. g. Daily.
22. During the <u>past year</u> , how many different <u>women</u> did you have sexual contact with (choose one answer): a. None. b. 1. c. 2. d. 3-5. e. 6-10. f. 11-49. g. 50-99. h. 100 or more.
23. During the <u>past year</u> , on average, how often did you have sexual contact with a <u>woman</u> (choose one answer): a. Never. b. Less than 1 time per month. c. 1-3 times per month. d. 1 time per week. e. 2-3 times per week. f. 4-6 times per week. g. Daily.
V. Fantasy - Consider times you have thought about sex.
 24. On the average, how often do you think about sex? a. Less than once a month. b. One to a few times a month. c. One to a few times a week. d. Every day. e. Several times a day. f. I never think about sex.
VI. Questionnaire Follow-up - The following four questions are asked to assess your experience with this questionnaire. Your answers will be helpful in drafting future versions of this questionnaire.
25. In questions 8 through 14 you were asked to assess how frequently and intensely you are sexually attracted to men and women. When answering this question, among the people you were sexually attracted to, were any of these people (choose all that apply) a. people you have seen or met in real life. b. people you have seen on TV. c. people you have seen in a movie. d. people you have seen in a magazine or newspaper. e. Other (please specify):
26. How would you define the term "sexual attraction?"
27. How would you define the term "sexual orientation identity?"
28. How would you define the term "sexual contact?"

APPENDIX B - ADDITIONAL DATA

APPENDIX B

Data on the following pages include one way frequencies and cross-tabulations of the Sell Assessment and Kinsey-type questions from the Sell Assessment of Sexual Orientation Questionnaire (see Appendix A). The table numbers signify the question or questions in Appendix A associated with the data in the table. For example, the table on the following page is number 8. This corresponds to question 8 from Appendix A. Cross-tabulations of questions are denoted by a "/." For example, Table 9/12 is the cross-tabulation of questions 9 and 12 from Appendix A.

This data is provided here to further clarify the paper's findings.

Table 8 - Kinsey measure of sexual attraction.

	Newsgroup:					
	politics.		politics.			
	homosexuality		medicine		Total	
Kinsey Classification:						
Sexual Attraction	Count	Percent	Count	Percent	Count	Percent
None	4	2.7	0	0.0	4	2.3
Exclusively homosexual	54	36.5	0	0.0	54	30.5
Pred. homosexual, only incident. heterosexual	18	12.2	1	3.4	19	10.7
Pred. homosexual, but more than incident. heterosexual	10	6.8	0	0.0	10	5.6
Equally heterosexual and homosexual	7	4.7	0	0.0	7	4.0
Pred. heterosexual, but more than incident. homosexual	9	6.1	0	0.0	9	5.1
Pred. heterosexual, only incident. homosexual	6	4.1	5	17.2	11	6.2
Exclusively heterosexual	40	27.0	23	79.3	63	35.6
Total	148	100.0	29	100.0	177	100.0

Table 9 - Number of men sexually attracted to.

	Newsgroup:				1	
	politics.		politics.			
	homosexuality		medicine		Total	
Number of Men						_
Sexually						
Attracted to:	Count	Percent	Count	Percent	Count	Percent
NONE	46	31.1	24	82.8	70	39.5
'1'	5	3.4	2	6.9	7	4.0
'2'	6	4.1	0	0.0	6	3.4
′ 3–5 ′	16	10.8	1	3.4	17	9.6
'6-10'	19	12.8	1	3.4	20	11.3
'11-49'	24	16.2	1	3.4	25	14.1
' 50-99'	13	8.8	0	0.0	13	7.3
' 100+'	19	12.8	0	0.0	19	10.7
Total	148	100.0	29	100.0	177	100.0

Table 10 - Frequency of sexual attraction to men.

	politics. homosexuality		politics. medicine		Total	
Frequency of Sexual						
Attraction to Men:	Count	Percent	Count	Percent	Count	Percent
Never	46	31.1	24	82.8	70	39.5
Less than 1 time/month	12	8.1	3	10.3	15	8.5
1-3 times/month	11	7.4	1	3.4	12	6.8
1 time/week	9	6.1	0	0.0	9	5.1
2-3 times/week	20	13.5	0	0.0	20	11.3
4-6 times/week	10	6.8	1	3.4	11	6.2
Daily	40	27.0	0	0.0	40	22.6
Total	148	100.0	29	100.0	177	100.0

Table 11 - Intensity of sexual attraction to men.

	politics. homosexuality	7	politics. medicine		Total	
Intensity of Sexual	Homosexuality		mearcine		10041	
Attraction to Men:	Count	Percent	Count	Percent	Count	Percent
Not at all	45	30.4	21	72.4	66	37.3
Slightly	5	3.4	5	17.2	10	5.6
Mildly	6	4.1	1	3.4	7	4.0
Moderately	9	6.1	0	0.0	9	5.1
Significantly	10	6.8	0	0.0	10	5.6
Very	18	12.2	0	0.0	18	10.2
Extremely	55	37.2	2	6.9	57	32.2
Total	148	100.0	29	100.0	177	100.0

Table 12 - Number of women sexually attracted to.

	politics. homosexuality		politics. medicine		Total	
Number of Women						
Sexually Attracted to:	Count	$Percent^1$	Count	$Percent^1$	Count	$Percent^1$
NONE	55	37.2	0	0.0	55	31.1
'1'	14	9.5(15.1)	2	6.9 (6.9)	16	9.0(13.1)
'2'	8	5.4 (8.6)	1	3.4 (3.4)	9	5.1 (7.4)
′ 3–5 ′	23	15.5(24.7)	7	24.1(24.1)	30	16.9(24.6)
'6-10'	9	6.1 (9.7)	4	13.8(13.8)	13	7.3(10.7)
'11-49'	20	13.5(21.5)	4	13.8(13.8)	24	13.6(19.7)
'50-99'	8	5.4 (8.6)	5	17.2(17.2)	13	7.3(10.7)
'100+'	11	7.4(11.8)	6	20.7(20.7)	17	9.6(13.9)
Total	148	100.0	29	100.0	177	100.0

NOTES:

^{1 -} Percent of all respondents. In parentheses is percent of all respondents reporting sexual attraction to one or more women.

Table 13 - Frequency of sexual attraction to women.

	politics. homosexuality		politics. medicine		Total	
Frequency of Sexual						
Attraction to Women:	Count	$Percent^1$	Count	${\it Percent}^1$	Count	${\it Percent}^1$
Never	54	36.5	0	0.0	54	30.5
Less than 1 time/month	24	16.2(25.5)	2	6.9 (6.9)	26	14.7(21.1)
1-3 times/month	8	5.4 (8.5)	3	10.3(10.3)	11	6.2 (8.9)
1 time/week	12	8.1(12.8)	3	10.3(10.3)	15	8.5(12.2)
2-3 times/week	16	10.8(17.0)	3	10.3(10.3)	19	10.7(15.4)
4-6 times/week	9	6.1 (9.6)	7	24.1(24.1)	16	9.0(13.0)
Daily	25	16.9(26.6)	11	37.9(37.9)	36	20.3(29.3)
Total	148	100.0	29	100.0	177	100.0

NOTES:

1 - Percent of all respondents. In parentheses is percent of all respondents reporting at least some sexual attraction to women.

Table 14 - Intensity of sexual attraction to women.

	wewsgroup.					
	politics. homosexuality		politics. medicine		Total	
Intensity of Sexual						
Attraction to Women:	Count	${\it Percent}^1$	Count	${\it Percent}^1$	Count	${\it Percent}^1$
Not at all	52	35.1	0	0.0	52	29.4
Slightly	16	10.8(16.7)	0	0.0 (0.0)	16	9.0(12.8)
Mildly	8	5.4 (8.3)	0	0.0 (0.0)	8	4.5 (6.4)
Moderately	8	5.4 (8.3)	3	10.3(10.3)	11	6.2 (8.8)
Significantly	12	8.1(12.5)	4	13.8(13.8)	16	9.0(12.8)
Very	17	11.5(17.7)	6	20.7(20.7)	23	13.0(18.4)
Extremely	35	23.6(36.5)	16	55.2(55.2)	51	28.8(40.8)
Total	148	100.0	29	100.0	177	100.0

NOTES:

1 - Percent of all respondents. In parentheses is percent of all respondents reporting at least slight sexual attraction to women.

Table 9/12 - Number of men sexually attracted to by the number of women sexually attracted to.

Number of Women Sexually Attracted to:

Number of Men Sexually									
Attracted to:	NONE	'1'	'2'	′3-5′	'6-10'	'11-49'	'50-99'	'100+'	Totals
NONE	3	9	1	13	7	16	7	14	70
'1'	2	0	0	3	1	0	1	0	7
'2'	0	2	1	1	0	0	2	0	6
′3-5′	6	1	2	3	0	3	0	2	17
'6-10'	10	2	2	2	1	2	1	0	20
'11-49'	13	1	1	4	3	2	0	1	25
'50-99'	6	1	1	1	1	1	2	0	13
' 100+ '	15	0	1	3	0	0	0	0	19
Total	55	16	9	30	13	24	13	17	177

		Correlation	Test	
Statistic:	Valid N	Coefficient	Statistic	P Value
Spearman's Rank Order	177	5393	-8.47	P < 0.0001
Kendall's Tau	177	4298	-8.49	P < 0.0001
Gamma	177	5270	-8.49	P < 0.0001

Table 10/13 - Frequency of sexual attraction to men by frequency of sexual attraction to women.

Frequency of Sexual Attraction to Women:

requestly of behavior to women.									
	Never	Less	1-3	1 time/	2-3	4-6	Daily	Totals	
		than 1	times/	week	times/	times/			
Frequency of Sexual		time/	month		week	week			
Attraction to Men:		month							
Never	3	5	5	8	14	10	25	70	
Less than 1 time/month	4	3	1	0	0	2	5	15	
1-3 times/month	5	3	2	0	0	0	2	12	
1 time/week	3	2	0	1	3	0	0	9	
2-3 times/week	7	5	1	3	2	0	2	20	
4-6 times/week	3	4	0	0	0	2	2	11	
Daily	29	4	2	3	0	2	0	40	
Total	54	26	11	15	19	16	36	177	

		Correlation	Test	
Statistic:	Valid N	${\it Coefficient}$	Statistic	P Value
Spearman's Rank Order	177	5999	-9.92	P < 0.0001
Kendall's Tau	177	4836	-9.56	P < 0.0001
Gamma	177	5911	-9.56	P < 0.0001

Table 11/14 - Intensity of sexual attraction to men by intensity of sexual attraction to women.

Intensity of Sexual Attraction to Women:

		•						
Intensity of Sexual	Not at	Slight-	Mildly	Moder-	Signif-	Very	Ex-	
Attraction to Men:	all	ly		ately	icantly		tremely	Totals
Not at all	3	3	4	3	10	11	32	66
Slightly	1	0	0	1	1	3	4	10
Mildly	2	4	0	0	1	0	0	7
Moderately	2	0	2	0	1	0	4	9
Significantly	5	2	0	1	1	0	1	10
Very	7	2	0	3	0	4	2	18
Extremely	32	5	2	3	2	5	8	57
Total	52	16	8	11	16	23	51	177

		Correlation	Test	
Statistic:	Valid N	${\it Coefficient}$	Statistic	P Value
Spearman's Rank Order	177	5029	-7.70	P < 0.0001
Kendall's Tau	177	4165	-8.23	P < 0.0001
Gamma	177	5197	-8.23	P < 0.0001

Table 15 - Kinsey measure of sexual orientation identity.

	Newsgroup:					
	politics.		politics.			
	homosexuality		medicine		Total	
Kinsey Classification	Count	Percent	Count	Percent	Count	Percent
None	4	2.7	0	0.0	4	2.3
Exclusively homosexual	52	35.1	0	0.0	52	29.4
Pred. homosexual, only incident. heterosexual	19	12.8	1	3.4	20	11.3
Pred. homosexual, but more than incident. heterosexual	7	4.7	0	0.0	7	4.0
Equally heterosexual and homosexual	10	6.8	0	0.0	10	5.6
Pred. heterosexual, but more than incident. homosexual	3	2.0	0	0.0	3	1.7
Pred. heterosexual, only incident. homosexual	9	6.1	5	17.2	14	7.9
Exclusively heterosexual	44	29.7	23	79.3	67	37.9
Total	148	100.0	29	100.0	177	100.0

Table 16 - Homosexual Identity

	politics. homosexuality		politics. medicine		Total	
Homosexual Identity	Count	Percent	Count	Percent	Count	Percent
Not at all	53	35.8	26	89.7	79	44.6
Slightly	8	5.4	2	6.9	10	5.6
Mildly	3	2.0	0	0.0	3	1.7
Moderately	3	2.0	0	0.0	3	1.7
Significantly	12	8.1	0	0.0	12	6.8
Very	24	16.2	1	3.4	25	14.1
Extremely	45	30.4	0	0.0	45	25.4
Total	148	0.0	29	100.0	177	100.0

Table 17 - Heterosexual Identity

	politics. homosexuality		politics. medicine		Total	
Heterosexual Identity	Count	Percent	Count	Percent	Count	Percent
Not at all	62	41.9	0	0.0	62	35.0
Slightly	13	8.8	1	3.4	14	7.9
Mildly	5	3.4	0	0.0	5	2.8
Moderately	7	4.7	0	0.0	7	4.0
Significantly	6	4.1	0	0.0	6	3.4
Very	13	8.8	9	31.0	22	12.4
Extremely	42	28.4	19	65.5	61	34.5
Total	148	100.0	29	100.0	177	100.0

Table 16/17 - Homosexual identity by heterosexual identity.

Heterosexual Identity:

	Not at	Slight-	Mildly	Moder-	Signif-	Very	Ex-	
Homosexual Identity:	all	1_Y		ately	icantly		tremely	Totals
Not at all	6	1	0	1	2	14	55	79
Slightly	0	1	0	0	1	5	3	10
Mildly	0	0	0	2	1	0	0	3
Moderately	0	0	0	3	0	0	0	3
Significantly	5	1	4	1	1	0	0	12
Very	11	7	1	0	1	3	2	25
Extremely	40	4	0	0	0	0	1	45
Total	62	14	5	7	6	22	61	177

		Correlation	Test	
Statistic:	Valid N	Coefficient	Statistic	P Value
Spearman's Rank Order	177	7851	-16.77	P < 0.0001
Kendall's Tau	177	7152	-14.13	P < 0.0001
Gamma	177	8506	-14.13	P < 0.0001

Table 19 - Kinsey measure of sexual behavior.

-	newsgroup: politics.		politics.			
	homosexuality		medicine		Total	
Kinsey Classification -	nomosenaarre,		caroric		10041	
Sexual Behavior	Count	Percent	Count	Percent	Count	Percent
None	22	14.9	2	6.9	24	13.6
Exclusively homosexual	64	43.2	1	3.4	65	36.7
Pred. homosexual, only incident. heterosexual	3	2.0	0	3.4	3	1.7
Pred. homosexual, but more than incident. heterosexual	2	1.4	0	0.0	2	1.1
Equally heterosexual and homosexual	3	2.0	0	0.0	3	1.7
Pred. heterosexual, but more than incident. homosexual	5	3.4	0	0.0	5	2.8
Pred. heterosexual, only incident. homosexual	6	4.1	1	3.4	7	4.0
Exclusively heterosexual	43	29.1	25	86.2	68	38.4
Total	148	100.0	29	100.0	177	100.0

Table 20 - Number of male sexual partners.

	politics.		politics.			
	_		_			
	homosexuality		medicine		Total	
Number of Male						
Sexual						
Partners:	Count	Percent	Count	Percent	Count	Percent
NONE	66	44.6	28	96.6	94	53.1
'1'	30	20.3	0	0.0	30	16.9
'2'	6	4.1	1	3.4	7	4.0
' 3-5 '	21	14.2	0	0.0	21	11.9
'6-10'	10	6.8	0	0.0	10	5.6
'11-49'	9	6.1	0	0.0	9	5.1
'50-99'	2	1.4	0	0.0	2	1.1
' 100+'	4	2.7	0	0.0	4	2.3
Total	148	100.0	29	100.0	177	100.0

Table 21 - Frequency of sexual contact with men.

	politics. homosexuality		politics. medicine		Total	
Frequency of Sexual						
Contact with Men:	Count	Percent	Count	Percent	Count	Percent
Never	66	44.6	28	96.6	94	53.1
Less than 1 time/month	22	14.9	0	0.0	22	12.4
1-3 times/month	22	14.9	1	3.4	23	13.0
1 time/week	14	9.5	0	0.0	14	7.9
2-3 times/week	15	10.1	0	0.0	15	8.5
4-6 times/week	8	5.4	0	0.0	8	4.5
Daily	1	0.7	0	0.0	1	0.6
Total	148	100.0	29	100.0	177	100.0

Table 22 - Number of female sexual partners.

	Newsgroup:					
	politics.		politics.			
	homosexuality		medicine		Total	
Number of						
Female Sexual						
Partners:	Count	$Percent^1$	Count	$Percent^1$	Count	${\it Percent}^1$
NONE	85	57.4	3	10.3	88	49.7
'1'	39	26.4(61.9)	17	58.6(65.4)	56	31.6(62.9)
'2'	9	6.1(14.3)	1	3.4 (3.8)	10	5.6(11.2)
′ 3–5 ′	8	5.4(12.7)	5	17.2(19.2)	13	7.3(14.6)
'6-10'	6	4.1 (9.5)	1	3.4 (3.8)	7	4.0 (7.9)
'11-49'	0	0.0 (0.0)	2	6.9 (7.7)	2	1.1 (2.2)
' 50-99'	1	0.7 (1.6)	0	0.0 (0.0)	1	0.6 (1.1)
' 100+'	0	0.0 (0.0)	0	0.0 (0.0)	0	0.0 (0.0)
Total	148	100.0	29	100.0	177	100.0

NOTES:

^{1 -} Percent of all respondents. In parentheses is percent of all respondents reporting sexual contact with at least one women.

Table 23 - Frequency of sexual contact with women.

	politics. homosexuality		politics. medicine		Total	
Frequency of Sexual						
Contact with Women:	Count	$Percent^1$	Count	${\it Percent}^1$	Count	${ t Percent}^1$
Never	85	57.4	3	10.3	88	49.7
Less than 1 time/month	10	6.8(15.9)	8	27.6(30.8)	18	10.2(20.2)
1-3 times/month	14	9.5(22.2)	4	13.8(15.4)	18	10.2(20.2)
1 time/week	8	5.4(12.7)	4	13.8(15.4)	12	6.8(13.5)
2-3 times/week	12	8.1(19.0)	7	24.1(26.9)	19	10.7(21.3)
4-6 times/week	14	9.5(22.2)	2	6.9 (7.7)	16	9.0(18.0)
Daily	5	3.4 (7.9)	1	3.4 (3.8)	6	3.4 (6.7)
Total	148	100.0	29	100.0	177	100.0

NOTES:

1 - Percent of all respondents. In parentheses is percent of all respondents reporting at least some sexual contact with a woman or women.

Table 20/22 - Number of male sexual partners by number of female sexual partners.

Number of Female Sexual Partners:

Number of Male Sexual									
Partners:	NONE	'1'	'2'	′ 3-5 ′	'6-10'	'11-49'	'50-99'	'100+'	Totals
NONE	22	46	8	11	4	2	1	0	94
'1'	22	5	2	1	0	0	0	0	30
'2'	5	1	0	1	0	0	0	0	7
'3-5'	17	3	0	0	1	0	0	0	21
'6-10'	8	0	0	0	2	0	0	0	10
'11-49'	9	0	0	0	0	0	0	0	9
' 50-99'	1	1	0	0	0	0	0	0	2
' 100+ '	4	0	0	0	0	0	0	0	4
Total	88	56	10	13	7	2	1	0	177

		Correlation	Test	
Statistic:	Valid N	Coefficient	Statistic	P Value
Spearman's Rank Order	177	5126	-7.89	P < 0.0001
Kendall's Tau	177	4417	-8.73	P < 0.0001
Gamma	177	6705	-8.73	P < 0.0001

Table 21/23 - Frequency of sexual contact with men by frequency of sexual contact women.

Frequency of Sexual Contact with Women:

	rrequency	OI DEMAG	1 concact	WICH WOME.				
	Never	Less	1-3	1 time/	2-3	4-6	Daily	Totals
		than 1	times/	week	times/	times/		
Frequency of Sexual Contact		time/	month		week	week		
with Men:		month						
Never	22	14	12	10	17	13	6	94
Less than 1 time/month	13	2	3	1	0	3	0	22
1-3 times/month	19	0	3	1	0	0	0	23
1 time/week	12	1	0	0	1	0	0	14
2-3 times/week	14	0	0	0	1	0	0	15
4-6 times/week	7	1	0	0	0	0	0	8
Daily	1	0	0	0	0	0	0	1
Total	88	18	18	12	19	16	6	177

		Correlation	Test	
Statistic:	Valid N	Coefficient	Statistic	P Value
Spearman's Rank Order	177	5675	-9.12	P < 0.0001
Kendall's Tau	177	4739	-9.36	P < 0.0001
Gamma	177	7205	-9.36	P < 0.0001