# SOCIAL DETERMINANTS OF MALE SEXUALITY: A SEARCH FOR CAUSES 

RICARDO M. ZARCO<br>Department of Sociology<br>University of the Philippines at Diliman

ANA MARIA J. BADUA<br>Division of Social Sciences<br>University of the Philippines College, Baguio

In the search for the social determinants of male sexuality, a number of variables were drawn from the home, family, peer relations, sources of role models, best friends, community and school influences of 60 homosexuals, 60 bisexuals and 60 heterosexual respondents. Using a controlled design and stepwise multiple regression analysis, it was demonstrated that a boy's chances of turning out to be a homosexual, bisexual or heterosexual is determined by a unique combination of seven social variables. This does not preclude biologically inherited characteristics as determinants of male sexuality.

Many studies on the determinants of conventional and non-conventional male sexuality exist, but the topic of causation is a theorystarved area in the social sciences. Robert K . Merton and Emile Durkheim discuss, for example, various forms of anomic behavior but leave out homosexuality and other gender identity phenomena in theit theoretical statements. Philippine sociological studies also fail to discuss theories on the causes of homosexuality. These studies usually focus on informal structures of "gay" sub-cultures, attitudinal contrasts and other ethnographic descriptions. They do not deal directly with causative factors, and rarely apply inferential statistical tests.

This investigation selects a number of social variables - namely home and family situation, peer relations, choice of role models, best friends, and other community and school influences - which may explain why boys turn out as heterosexuals, bisexuals or homosexuals. As most sociologists believe that sexuality is learned, acquired or culturally transmitted by human groups, this study assumes that male sexuality - both conventional and non-conventional - has social determinants.

## Methods

The research employed the controlled study method. First, it used a comparator or a control category. Heterosexual males represented the control category while bisexual and homosexual males comprised the affected categories. These three categories of male sexuality, a mutually exclusive trichatomy, are repeatedly contrasted against one another. Second, matching controls were attempted whenever possible. Age, marital status, occupation and residence were held constant for the three categories of male sexuality. Third, a procedure similar to the"double blind"technique used by psychologists in experimental designs was applied. The interviewers who collected the data did not know the exact objectives of the study and those who processed the data were different from those who conducted the analy.ses. This was done to prevent any unconscious predilection from creeping into the process of hypothesis testing. Fourth, the data collected consisted mainly of objective quantifiable information subject to statistical analyses.

Sample selection entailed two steps. The first assigned a respondent category to a
specific stratum: heterosexual males composed the first stratum, bisexuals the second and, homosexuals the third. The second step allocated a quota of 60 cases per stratum.

In the selection of subjects, traditional sampling techniques used in surveys were not applicable. It was not possible to use probability sampling techniques on homosexual and bisexual males since they are few in number and difficult to locate. To overcome the problem, the interviewers approached known groups of "gays" and established contact and rapport. As members of groups, the subjects were more willing to admit their sexual preferences than when they were by themselves.

The operational definition of a homosexual is one who is sexually attracted exclusively to a person of the same sex. Bisexuals are those who find persons from both sexes sexually desirable either concurrently or alternately. The heterosexual is a person who finds the opposite sex to be exclusively sexually desirable.

This typology of male sexuality is based on a conceptual model where sexuality is treated as a continuum. The two end points of the continuum represent the pure types while the bisexual is located at midpoint. The model is illustrated below:


The continuum is treated as an interval scale: therefore, the typology is not composed of nominal or subjective categories but are
types numerically anchored on assumed equidistant points on a scale.

In earlier studies, sexuality was commonly conceived as a dichotomy: heterosexuality and homosexuality. This typology had no middle ground, a tertius non est. But social reality does not fit the dichotomy. As there is a middle category, the bisexual, the dichotomous model was abandoned and replaced with the above.

A schedule was administered in November 1984 to each subject either by means of questionnaire or an interview, depending on the subject's level of literacy. Topics covered a wide range of the subject's personal social history. The data were then tabulated and arranged into a set of independent variables and correlated with the dependent variable - male sexuality. The distribution of cases is shown in Table 1.

## Füdings

An initial assessment of the data revealed two variables which were unrelated to sexuality. These were "broken families" and "birth order." The percentage of respondents with broken families, i.e., where the subject was brought up by surrogate parents owing to parental absence, separation, or death of a parent, was low for both heterosexuals and homosexuals. The percentage was slightly higher for bisexuals but the increment was not sizeable. In turn, birth order or the ordinal birth position was also not linked to male sexuality categories. As such, these two variables were excluded in the subsequent multivariate analysis.

Table 1. Male Sexuality Types by Mean Age and Standard Deviation, Baguio City, 1984

| Sexuality | $N$ | Mean Age | Standard Deviation |
| :--- | :---: | :---: | :---: |
| Heterosexuals | 60 | 25.7 | 5.4 |
| Bisexuals | 60 | 20.4 | 3.6 |
| Homosexuals | 60 | 22.8 | 5.0 |
| Total | 180 | - | - |

After selecting 12 probable predictive variables of male sexuality, a zero-order correlation matrix was performed between each of these twelve independent variables and the male sexuality variable. This statistical exercise had two functional applications: first, to provide an'idea of the study's internal validity; second, to single out the statistically significant variables of male sexuality. Table 2 presents the
matrix.
The magnitude and significance level of each zero order correlation in Table 2 suggest several plausible predictors of male sexuality. But the bivariate technique is fragmentary and ineffective to convey a holistic view on how the independent variables, in various combinations, affect the dependent variable. Stepwise multiple regression was thus conducted.

Table 2. Zero-order Correlation Matrix of 13 Variables

| 1 | 2 | - 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.00 | -0.22 | -0.05 | -0.04 | -0.04 | 0.03 | -0.06 | 0.21 | 0.05 | 0.09 | 0.02 | 0.04 | -0.13 | 1 |
|  | 1.00 | -0.10 | 0.23 | 0.12 | -0.04 | 0.07 | 0.10 | 0.20 | 0.15 | 0.18 | -0.12 | 0.28 | 2 |
|  |  | 1.00 | - 0:10 | -0.19 | 0.40 | -0.37 | -0.24 | -0.25 | -0.27 | -0.25 | 0.34 | -0.57 | 3 |
|  |  |  | 1.00 | 0.18 | -0.18 | 0.37 | 0.24 | 0.22 | 0.22 | 0.34 | -0.32 | 0.44 | 4 |
|  |  |  |  | 1.00 | -0.23 | 0.39 | 0.02 | 0.12 | 0.16 | 0:25 | -0.10 | 0.33 | 5 |
|  |  |  |  |  | 1.00 | -0.54 | -0.17 | -0.19 | -0.22 | -0.30 | 0.31 | -0.54 | 6 |
|  |  |  |  |  |  | 1.00 | 0.06 | 0.24 | 0.37 | 0.38 | -0.24 | 0.44 | 7 |
|  |  |  |  |  |  |  | 1.00 | 0.12 | 0.13 | 0.05 | -0.24 | 0.44 | 8 |
|  |  |  | 7 |  |  |  |  | 1.00 | 0.63 | 0.34 | -0.38 | 0.25 | 9 |
| Tab | ular Prob | babilit | Levels |  |  |  |  |  | 1.00 | 0.55 | -0.25 | 0.47 | 10 |
|  | $=0.15$ | , $\mathrm{p}<0$ |  |  |  |  |  |  |  | 1.00 | -0.23 | 0.58 | 11 |
|  | $=0.19$ | $\mathrm{p}<0$. |  |  |  |  |  |  |  |  | 1.00 | 0.55 | 12 13 |
|  | $=0.24$ | p <0 | 001 |  |  |  |  |  |  |  |  | -0.51 | - |

[^0]Variable Description:
1 - Number of brothers
2 - Number of sisters
3 - Number of masculine male family members respondent associated with longest
4 - Number of female family members associated with longest
5 - Number of persons who are bisexual, homosexual, lesbian tomboy, working, living or staying household during the first ten years
6 - Number of masculine male family members who influenced respondent during the first ten years
7 - Number of female members who influenced respondent during the first ten years
8 - Parent with a more domineering personality (dummy variables assigned: Father $=1$, Mother $=2$ )
9 - Number of best friends who are sex role deviants, homosexuals, bisexuals, lesbians, tomboys
10 - Number of best friends in school from 6th to 10 th grade who are sex role deviants
11 - Number of role models in community who are sex role deviants, during childhood up to early adolescence
12 - Number of masculine male teachers in life in the community, school, during childhood up to early adolescence
13 - Respondent's sexuality or gender (dummy variable assigned: heterosexual $=1$, bisexual $=2$, homosexual $=3$ )

## Stepwise Multiple Regression Analysis

Multiple regression is a multivariate statistical technique where all the independent variables (the possible causative factors) are processed in all possible combinations of twos, threes, fours and so on to see which combination yields the maximum coefficient of correlation.

Of the twelve independent variables, a combination of seven had the highest possible multiple correlation coefficient ( $R=.83$ ). These seven variables explain 68.6 percent of the variance in male sexuality. In stepwise stages (see Table 3), the multiple regression results are as follows:

Step One - Variable 10, the number of best friends the respondent had in school from the 6th to the 10th grades who were male and female sex role deviants like lesbians, tomboys and male homosexuals and bisexuals, had the highest zero-order coefficient of correlation with male sexuality ( $\mathrm{r}=.58$ ). This variable alone predicts 33.1 percent of the variance in male sexuality.

Step Two - Variable 6, the number of male family members who had influenced the subject during the first 10 years of life ( $\mathrm{r}=.54$ ), in combination with variable 10 above have the highest multiple $R$ coefficient compared to all possible combinations of two independent variables. A coefficient

Table 3. Stepwise Multiple Regression Summary

| Stepwise stuge | Variable Description | Variable <br> Number | ZeroOrder correlation (r) | Cumulative |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Multiple $R$ | \% of Determinism |
|  | Number of best friends in school from 6th to 10 th grade who are sex role deviants | 10 | . 58 | - | 33.1 |
| $2$ | Number of masculine male family members who influenced the respondent during the first ten years | 6 | $-.54$ | . 72 | 51.0 |
| 3 N | Number of masculine male teachers in life in the community, school, during childhood up to early adolescence | 12 | $-.51$ | . 76 | 58.4 |
| 4 N | Number of male masculine family members respondent associated with longest | 3 | -. 57 | . 79 | 62.8 |
| 5 N | Number of female family members who influenced the respondent during the first ten years | 7 | . 44 | . 81 | 65.8 |
| 6 N | Number of sisters | 2 | . 28 | . 82 | 67.2 |
| $7$ | Number of role models in community who are sex role deviants, during childhood up to early adolescence. | 11 | . 55 | . 83 | 68.5 |

of .72 was reached, with an explained variance of 51 percent.

Step Three - Variable 12, the number of "masculine" male teachers, e.g., teachers in life, in the community, in school during childhood and early adolescence. $(r=.51$ ), in combination with variables 10 and 6 have the highest multiple $R$ coefficient of .76 from all possible combinations of three independent. variables. The percentage of prediction or - explained variance reaches 58.4 percent.

Step Four - Variable 3, the number of "masculine" male family members with whom the respondent associated the longest ( $r=-.57$ ), in combination with variables 10 , 6,12 have the highest multiple $R$ coefficient of all possible combinations of four independent variables ( $R=.79 ; R^{2}=.628$ ).

Step Five - Variable 7, the number of female family members with whom the respondent associated the longest ( $\mathrm{r}=.44$ ) in combination with variables $10,6,12$, and 3 have the highest multiple $R$ coefficient of 81 from all possible combinations of five independent variables. The percentage of prediction is 65.8 percent.

Step Six - Variable 2, the number of sisters ( $r=.28$ ) in combination with variables $10,6,12,3$ and 7 have the highesi multiple $R$ coefficient of .82 from all possible combinations of six independent variables, with the percentage of prediction reaching 67.2 percent.

Step Seven - Variable 11, the number of role models in the community the respondent had during childhood up to early adolescence who are sex role deviants ( $r=.55$ ) in combination with variables $10,6,12,3$ and 2 have the highest multiple $R$ coefficient of 83 from all possible combinations of seven independent variables. The explained variance is 68.5 percent.

The multiple regression stops at the seventh step since no further addition to these seven independent variables increases the multiple correlation coefficient and the percentage of prediction.

## Discussion

After indicating 68.5 percent of the variance in male sexuality, what factors account for the unexplained residual of 31.5 percent? This may be composed of other social and genetic variables.

The reader must be cautioned, however, not to extend this study's findings into female sex inversion cases, or into situational (forcibly or stress induced) male homosexuality encounterd in institutions like prisons where men are stressly segregated from females for prolonged periods. These findings also do not extend to Philippine tribal minorities in the Mountain provinces. Anthropological ethnographic reports in such areas claim that all men are heterosexuals except for those who had been schooled or had been influenced by urbanization away from their tribal communities. Since the study was conducted in Baguio City, a small Philippine urban center, perhaps some of the generalizations may extend to similar urban communities in this country. Nonetheless, only replication will indicate the external validity of the present findings.

Of the eleven independent variables only seven optimally combined into an $R$ of .83 while the remaining five were eliminated. What are the bases for eliminating these five variables? There are three explanations. First, there is the situation of redundance which occurs when the variable selected represents similar concepts. Variables 9,4 and 5 were redundant. Variable 9, number of sex role deviants considered as best friends, is similar to variable 10 , number of best friends in school: who were sex role deviants during the 6th to 10 th grade. Variable 4, number of female family members the respondents associated with longest, is similar to Variable 7 , number of female family members who influenced the respondent during the first 10 years. Variable 5, number of sex role deviants who worked, lived or stayed in the respondent's home during the first 10 years is similar to variable 11 , number of
role models in the community who are bisexuals or homosexuals during respondent's childhood up to early adolescence. A second reason for elimination is a low linear association of an independent variable against the dependent variable. Variable 1, number of brothers, had an insignificant $r$. Variable 8, domineering parent, was also excluded because of a relatively low linear correlation against the male sexuality continuum. A third reason for elimination could be a deficiency in quantification, in the scaling of a construct, or a non-linear association against the dependent variable. Despite this exclusion from the final set of seven variables, we believe that the domineering parent variable (variable 8) is possibly a major determinant of male sexuality only that deficient scaling of the construct could have worked against a stronger linear correlation. Non-parametric analysis on the domineering parent variable (see Table 4) suggests a very strong non-linear association between homosexuality and the domineering mother.

## Toward an Initial Theory of Male Sexuality

This investigation has demonstrated that the correlates of male sexuality are social in character. The strongest deterrent against homosexuality and bisexuality are the cumulative and strong masculine influences on the boy at an early age (experiences during the first 10 years) such as the presence of male teachers in school, in the community and at home up to adolescence, and prolonged companionship and association with male members of the family. The more the masculine influence,
the greater the chance that the boy will be heterosexual. The weaker the masculine influence, the greater the risk of homosexuality and bisexuality. Minor factors are the number of female family members influencing the male child during the first 10 years (including number of sisters), and the number of sex role deviants in the child's community. The strongest factor that channels male sexuality into three types is the number of best friends in school who are sex deviants, an influence which comes in late childhood and adolescence. This singular influence accounts for 33 percent of male sexuality.

It must be stressed that these major and minor factors exert opposing influences on the boy during childhood and stronger factors determine to some degree the third most powerful singular influence, namely, the number of sex role deviants in school the boy chooses for his best friends. This peculiar variable is both a couse and an effect. The boy's choice of best friends in school is to some extent the effect of the stronger risk factor acquired during latency, but it is also a couse since it is within these very close intimate friendship group where sexuality of whatever category is reinforced, intensified, elaborated and finally defined. Table 5 illustrates this point.

These findings generally agree with the explanation of Western psychiatrists and sociologists who emphasize that family and early life situations are formative of sexuality. The differences are in the specific factors of causation, methodology, quantification and concept of sexuality.

Table 4. Chi-Square Analysis of Male Sexuality versus Domineering Parent, (Baguio 1984)

| Male Sexuality | Parent with more Domineering Personality <br> Father <br> Mother | Excluded from <br> Chi Square Test |  |
| :--- | :---: | :---: | :---: |
| Heterosexuals | 33 | 25 | 2 |
| Bisexuals | 30 | 21 | 9 |
| Homosexuals | 14 | 45 | 1 |
| Total | 77 | 91 |  |

Table 5. Schematic Combinations of Causative Factors of Male Sexuality

| Factor | Variable No. | Variable Description |  | Percent Contribution $\left(R^{2}\right)$ |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 6 | Masculine influences during childhood up to early adolescence from the family, school, community: | - |  |
|  |  | Number of male family members who intluenced respondent during the first ten years |  | 27.9 |
|  | 12 | Number of male teachers in life in the community, school, during childhood up to early adolescence |  | 7.4 |
|  | 3 | Number of male family members respondent associated with longest | Subtotal | 4.4 |
|  |  |  |  | 29.7 |
| II | 7 |  |  |  |
|  |  | Number of female family members who influenced respondent during the first ten years |  | 3.0 |
|  | 2 | Number of sisters |  | 1.5 |
|  |  |  | Sub-total | $\overline{4.5}$ |
| III |  | Influences from school and community as sources of non-conventional or deviant role models and best friends: |  |  |
|  | 11 | Number of role models in community who are sex role deviants, during childhood up to early adolescence |  | 1.3 |
|  | 10 | Number of best friends in school from 6th to 10th grade who are sex role deviants |  | 33.1 |
|  |  |  | Sub-total | 34.4 |
|  |  | Grand Total |  | 68.5 |

An earlier study conducted by the senior author in 1974 on the etiology of male homosexuality using a controlled design yielded weak results. Three more replications were conducted in 1976, 1980 and 1983, but these studies still failed to explain the etiology of male homosexuality. Why did these studies fail after four attempts? To some extent, local and foreign literature misled us because the typology of male sexuality was an unrealistic dichotomy compused of heterosexuality and homosexuality. The dichotomy we find is deficient because the term homosexuality included all types of non-heterosexual gender preferences. This was the main reason
for our inability to discover significantly strong differentials between the two nominal categories.

With the new concept of male sexuality as a bipolar continuum and with three graduations as our dependent variable, we had achieved the highest multiple $R$ through stepwise regression, higher than we had ever expected.

It is our hope that other investigators could improve our conceptual model, research design and statistical analysis in order to retest the validity of our initial theory and specific findings. The bibliography appended in this paper may help in this search.
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[^0]:    Note: $\mathrm{N}=168$ (58 heterosexuals, 51 bisexuals, 59 homosexuals)

