

Deficient Erotic Gender Differentiation in Pedophilia: A Follow-Up

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Divided 262 phallometrically diagnosed pedophiles into heterosexual, homosexual, and bisexual groups, according to the sex of their victims. Each group was then divided into 3 subgroups according to degree of admitting to an erotic preference for children. They were compared among each other and with 47 self-professed heterosexual and 20 self-professed homosexual male volunteers phallometrically diagnosed as having an erotic preference for physically mature partners. The comparison was in regard to phallometrically assessed "erotic gender differentiation." Results demonstrate that gender differentiation of even the fully admitting heterosexual pedophiles was significantly weaker than that of the heterosexual controls, and the gender differentiation of the fully admitting homosexual pedophiles was significantly weaker than that of both groups of controls. Gender differentiation of the nonadmitting heterosexual pedophiles was significantly weaker than that of the heterosexual pedophiles who fully admitted to their paraphilia. This was demonstrated to be caused by the nonadmitters suppression of responses.

KEY WORDS: pedophilia; phallometry; erotic gender differentiation; etiological model of pedophilia.

INTRODUCTION

Since the first indications that paraphilias may be more frequent in persons who have suffered very early brain damage, (Epstein, 1960, 1961; Kolarsky *et al.*, 1967), the senior author has been searching for a deficiency in pedophiles that could have interfered with the usual development of an

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erotic preference for physically mature sex partners. Earlier studies (Freund, 1967; Freund and Langevin, 1976; Freund *et al.*, 1991) compared penile responses of pedophiles and of males who prefer physically mature partners to pictures of nude female and male children and adults by means of the phallogometric test (Freund *et al.*, 1958). These comparisons appeared to indicate that, beyond the difference in regard to erotically preferred partner age, a basic difference between pedophiles and males who erotically prefer physically mature partners, may be a pedophile's deficiency in regard to "erotic gender differentiation." *This is best characterized as the difference between the degree of sexual arousal effected by the body shapes of both males and females of an individual's erotically most preferred age bracket.* A deficiency in regard to gender differentiation could be interpreted as implying that pedophiles do not have much erotic sensitivity for the gender-differentiating body shapes that are so characteristic of physically mature persons.

The reason for the present follow-up of our study on gender differentiation (Freund *et al.*, 1991) was a deficiency in the earlier study: Gender differentiation was assessed for pedophiles who did admit, and those who did not admit, to their paraphilia together. These two categories of pedophiles could, however, respond differently to the demand characteristics of the testing situation (Orne, 1962), and those who do not admit to this paraphilia would, in all likelihood, try to suppress responses—and particularly so to pictures of children of their preferred sex (Freund, 1967). This suppression would have decreased the difference between responses to children of the preferred sex and to the nonpreferred sex.

If such faking would have interfered substantially with the phallogometric measurement, the result that pedophiles differed from persons who preferred physically mature partners could have been an artifact or at least was confounding results of this earlier study. During the past few years the number of tested patients has sufficiently increased to make possible replicating the study by assessing erotic gender differentiation separately for those individuals who fully admitted to being pedophilic, and for those who did not.

METHOD

Subjects

The study included charged or accused sex offenders against children under 12 as well as individuals who were not charged but came for help concerning their pedophilic desires. Most offenders were referred by psy-

chiatrists who in the majority of cases were assessing them for lawyers or for the courts. Further, all of them had to have undergone the most recent phallometric test version (Freund and Watson, 1991) and had to have been diagnosed by this test as pedophiles. One difference in the present selection of pedophiles, however, from that in the recent study on gender differentiation is that cases in which the offender was in a father role to (all of) his victims are now included.

Three groups of pedophiles were formed according to the sex of victims expressed in either the charges (or accusations) or directly by the pedophile himself, where no such charges or accusations existed. The first group comprised heterosexual pedophiles with charges or accusations against or interest only in female children; the second group comprised homosexual pedophiles with charges or accusations against, or interest in, only male children; the third group comprised "bisexual" individuals (Mohr *et al.*, 1964) who were either charged for sex offenses against female as well as male children or pubescents (with at least one of the victims not older than 11 years) or who complained about bisexual pedophilia. Each of these three groups of pedophiles was divided into three subgroups according to degree of admitting to pedophilia: full admitters, partial admitters, and nonadmitters. The subgroup into which a pedophilic individual was included depended on his answers to the following two questions found in the Erotic Preferences Examination Scheme (EPES; K. Freund, 1965, unpublished manuscript) administered to all of our patients evaluated for anomalous erotic preferences (and in an abbreviated version to some volunteer groups):

1. When lying in bed and sexually aroused, do you imagine or fantasize about intimately touching: (a) boys or girls up to 10 years old; (b) boys or girls 12–15 years old; (c) boys or girls in both age ranges; (d) none of the above.

2. When lying in bed and sexually aroused, do you imagine or fantasize about intimately touching females 17 and over, more often than touching children or teenagers 15 years or younger? (a) yes; (b) no.

Full admitters were those pedophiles who chose a, b, or c, for Question 1 and b for Question 2; partial admitters were those who chose a, b, or c, for Question 1 and a for Question 2; nonadmitters were those offenders against children who chose d for Question 1 and a for Question 2. Only rarely does a nonadmitting offender against male children claim to erotically prefer physically mature males. Instead, these offenders claim to prefer physically mature females, as do the nonadmitting heterosexual pedophiles. Those few individuals who were not able to read the EPES were administered these and any following questions used in this study,

orally. Approximately 5% of the pedophiles were African or Asian and the remaining were Caucasian.

There were two control groups, one each of gynephilic and androphilic paid volunteers. They were recruited from a governmental placement office for the unemployed and from community colleges; some androphilic volunteers were recruited by an advertisement posted in a gay book store. Approximately 15% of the unemployed and the community college students were Asian or African and the remaining were Caucasian. The control subjects were included either in the group of gynephiles or in the group of androphiles according to *self-professed* sex preference, and had to be found by the phallometric test as preferring physically mature partners. The phallometric diagnosis of sex preference was not considered in selecting an individual either for the gynephilic group or the androphilic group, because this would have confounded the independent and the dependent variables. In contrast to the original study, a group of sex offenders against physically mature females was not included because those who were concerned not to be seen as "sex maniacs," as some of them characterized this concern, could also be supposed to suppress responses. Individuals whose phallometric record showed signs of faking (Freund *et al.*, 1988) were excluded; however, one sign of faking was exempt from this exclusion. This was the occurrence of the highest and next highest mean responses being to opposite sex categories when at least one of these categories is physically mature persons. Omission of individuals whose records showed this (documented) faking sign would have interfered with the study of gender differentiation.

As in the original study, professed gender preference was contingent on the volunteer's answer to the following two questions found in the EPES:

1. About how old were you when you first felt sexually attracted to males? (a) younger than 6, (b) between 6 and 11, (c) between 12 and 16, (d) older than 16, (e) never.

2. Since what age have you been sexually attracted to males only? (a) younger than 6, (b) between 6 and 11, (c) between 12 and 16, (d) older than 16, (e) never. Volunteers who chose answer (e) to both questions were deemed heterosexual, and those who chose any of the remaining options were deemed homosexual.

Table I demonstrates the number of individuals, mean age, mean level of education achieved for each of the 3 pedophilic and the 2 control groups, and mean Output Index (O.I.; an indicator whose meaning is described under Procedure). Level of education was expressed on a 7-point scale: *No formal education* (1); *less than 8 grades completed* (2); *8 grades completed but no more* (3); *more than 8 grades completed but less than 12* (4); *at least 12 grades completed but no university* (5); *university studies without graduation*

(6); *university graduation* (7). Socioeconomic status (SES) was expressed by means of the Hollingshead-Redlich index (Hollingshead and Redlich, 1958). This index, however, was not available for the two volunteer groups. The median for the index for the heterosexual pedophiles was 7 (unskilled workers) and for the homosexual pedophiles and bisexual pedophiles was 6 (semiskilled workers).

Table I demonstrates also for each group of pedophiles the following more complex demographic variables: percentage of self-referred individuals, the number of mentally handicapped, the number of individuals who ever were married or living in a common-law relationship, the number of individuals who offended only against children to whom they occupied a father role, and the number of individuals who offended sexually against children under age 6.

Procedure

The most recent version of the phallometric test of erotic gender and age preferences as described in a recent study (Freund and Watson, 1991) is administered in two sessions. However, because the topics of the narratives accompanying the pictures in the second session are about sexual in-

Table I. Subject Group Characteristics^a

Characteristic	Het Ped (n = 115)	Hom Ped (n = 92)	Bis Ped (n = 55)	Gyne (n = 47)	Andro (n = 20)
Mean age (years)	35.5	30.9	37.9	27.1	27.2
SD age	12.2	10.3	14.6	6.8	5.1
Median education ^b	8 < Ed < 12	8 < Ed < 12	8 < Ed < 12	Ed = 12	ED = 12
Output index (ml) ^c	3.58	4.58	2.36	4.20	4.16
Hollingshead-Redlich ^d	6	7	7	—	—
Self-referred (%)	6.9	8.7	7.3	—	—
No. mentally handicapped	5	19	6	—	—
Married/common-law ^e	72	27	25	—	—
Only incest ^f	18	3	5	—	—
Y.V. < 6 ^g	41	19	17	—	—

^aHet Ped = heterosexual pedophiles; Hom Ped = homosexual pedophiles; Bis Ped = bisexual pedophiles; Gyne = gynephilic volunteers; Andro = androphilic volunteers.

^b8 < ED < 12 = more than 8 grades completed but less than 12; Ed = 12 = 12 grades completed but no university.

^cOutput Index: see under Procedure.

^dMedian socioeconomic status.

^eThe number having married or lived common-law.

^fNumber of pedophiles with *only* father-role involvements.

^gNumber of men whose youngest victim was under 6 years of age.

teraction and not body shape as in the first session, we decided to include only the results of the first session. All individuals undergoing phallometric testing gave signed consent to the testing and were assured of anonymity of any particulars used in publication.

Diagnostic Indicators Used in the Phallometric Test

Each subject's overall level of responding was expressed as an Output Index (O.I.; Freund *et al.*, 1979; Freund and Watson, 1991); this is the mean of the three highest responses in raw scores (responses to neutrals excluded). O.I. had to be at least 0.5 ml, and individuals with insufficient responses to the stimuli as indicated by a low O.I., or during whose testing a technical error occurred, were excluded from the study. In the calculations of the remaining indicators, standard scores were used, derived from each individual's responses in the respective test session separately.

An age preference index diagnosed an individual as pedophilic or as erotically preferring physically mature partners. This index entered the selection of subjects for the present study, in that each individual had to have a phallometric diagnosis of being either pedophilic or of erotically preferring physically mature partners, according to whether he was either a sex offender against children (or expressed pedophilia interests) or was a control volunteer.

RESULTS

Statistical Treatment

Statistical comparison of the individual subject groups or subgroups (see below) was by ANOVA and Tukey-H. S. D. test with groups or subgroups as the independent variable, and age, O.I., or gender differentiation index (GDI) as the dependent variable. Significance levels were $p < 0.05$ (using harmonic means). Comparisons in regard to levels of education were by Kruskal-Wallis one-way ANOVA corrected for ties and two-tailed Mann-Whitney U tests corrected for ties. Other comparisons were by chi-square and t tests of proportions with correction for small samples.

To save space, comparisons with respect to age, education, SES, and O.I. are reported for pedophiles only in regard to the full admitter (F Ad) subgroup. In regard to age, the results of ANOVA indicated significant differences for the comparison of the five groups, $F(4, 122) = 8.94$, $p < 0.001$. According to the results of the respective Tukey-H.S.D. test, the bi-

sexual pedophiles were significantly older than all the other groups and the heterosexual pedophiles were significantly older than the gynephiles. There were no other significant differences. The comparison of the five groups, using for each group of pedophiles only the F Ad subgroups, with respect to education, by a Kruskal-Wallis ANOVA corrected for ties demonstrated significant differences, $\chi^2(4) = 11.38, p < 0.03$. According to the results of Mann-Whitney U tests corrected for ties, these differences were as follows: The Androphiles had a significantly higher educational level than the gynephiles ($U = 330.5, p < 0.05$) and the heterosexual pedophiles ($U = 90.5, p < 0.003$), and the gynephiles had a significantly higher educational level than the heterosexual pedophiles ($U = 305.5, p < 0.02$). There were no other significant differences. There were no significant differences between the groups in regard to SES. A comparison of the five subject groups (using for the pedophile groups only the F Ad subgroups) in regard to O.I., by ANOVA, did not demonstrate any significant differences.

Gender Differentiation

In a comparison of admitter status and GDI within each of the groups of pedophiles, there was a significant difference between the various subgroups (according to admitter status) within the heterosexual pedophiles, ANOVA: $F(2, 112) = 5.05, p < 0.01$. According to the result of the Tukey-H.S.D. test, the GDI of the fully admitting heterosexual pedophiles differed significantly from that of the nonadmitting heterosexual pedophiles; the GDI of the fully admitting heterosexual pedophiles was larger. There were no other significant differences. A comparison of the subgroups (according to admitter status) by ANOVA and Tukey-H.S.D. within each of the pedophilic groups in regard to O.I. demonstrated that within the heterosexual pedophilic group there was a significant difference between the fully admitting and the nonadmitting pedophiles: $F(2, 112) = 4.74, p < 0.02$; the fully admitting pedophiles had the larger O.I. There were no significant differences in either O.I. or GDI for the homosexual and bisexual pedophiles.

Differences in regard to the GDI, between pedophiles and males who erotically prefer physically mature partners are reported for each of the three subgroups (fully admitting, partially admitting, nonadmitting pedophiles) of the pedophilic groups separately. For the full admitters the result of ANOVA indicated significant differences, ANOVA: $F(1, 40) = 26.78, p < 0.001$. According to the result of the Tukey-H.S.D. test, the GDI of the gynephiles was significantly higher than that of any of the pedophilic

groups, the GDI of the androphiles was significantly greater than that of the homosexual and bisexual pedophiles, and the GDI of the heterosexual pedophiles was significantly higher than that of the bisexual pedophiles. There were no other significant differences.

For both, the partial admitter and nonadmitter subgroups the result of ANOVA indicated significant differences, ANOVA; $F(4, 115) = 30.89$, $p < 0.001$; $F(4, 211) = 57.60$, $p < 0.001$, respectively. According to the results of the Tukey-H.S.D. tests for both subgroups, the GDIs of the gynephilic group and the androphilic group were significantly higher than those of any of the pedophilic groups. There were no other significant differences (Table II).

Table II demonstrates the breakdown of the pedophilic groups into subgroups according to their admitter status and lists the means of O.I. and GDI for each of these subgroups.

DISCUSSION AND CONCLUSIONS

In a series of studies, phallometric responses of pedophiles differed in regard to erotic gender differentiation from those of individuals who preferred physically mature partners. Erotic gender differentiation—the difference between arousal caused by nude females vs. that caused by nude

Table II. Admitter Status Subgroup Differences^a

Subgroups	Het Ped	Hom Ped	Bis Ped	Gyne	Andro
Full admitters					
<i>n</i>	20	24	16	47	20
O.I. (ml) ^b	5.64	6.32	2.76	4.20	4.16
GDI ^c	1.54	1.03	0.93	2.31	1.98
Partial admitters					
<i>n</i>	28	18	7		
O.I. (ml) ^b	4.21	4.90	1.34		
GDI ^c	1.21	0.87	1.13		
Non-admitters					
<i>n</i>	67	50	32		
O.I. (ml) ^b	2.70	3.60	2.38		
GDI ^c	1.04	0.90	0.87		

^aHet Ped = heterosexual pedophiles; Hom Ped = homosexual pedophiles, Bis Ped = bisexual pedophiles; Gyne = gynephilic volunteers; Andro = androphilic volunteers.

^bOutput Index; see under Procedure.

^cGender Differentiation Index = the absolute difference between the mean phallometric z-score of responses to females and the mean phallometric z-score of responses to males of the subject's erotically most preferred age group. The greater the differences the greater the degree of gender differentiation.

males of the erotically preferred age bracket — appeared to be lacking or deficient in pedophiles. However, the question remains open whether this finding is attributable to the pedophiles' suppression (during the phallometric test) of their responses to their preferred sex of children. This would have decreased the difference between responses to female and male children. A recent study (Freund *et al.*, 1991) did not take account of this possibility; the reason for the present follow-up.

The result demonstrated that, indeed, pedophiles showed weaker gender differentiation than did males who erotically prefer physically mature partners. However, among heterosexual pedophiles, faking further increased this "bisexuality effect" substantially, whereas among homosexual and bisexual pedophiles, faking showed less potential for simulating decreased gender differentiation. This may be due to the greater difficulty of faking an erotic gender preference than of faking an erotic age preference (Freund *et al.*, 1988); and only rarely does an offender against male children claim to erotically prefer physically mature males (this occurs more often with offenders against pubescents only). By comparing pedophilic admitters and nonadmitters in regard to O.I. the present study also investigated, whether faking was mainly by suppression of responses (Freund, 1967). This effect could be also demonstrated only with heterosexual pedophiles.

Against the interpretation of the results above as showing that the difference in gender differentiation between pedophilic and nonpedophilic males is not an artifact, one could argue that even the pedophiles who fully admitted to being pedophilic may have suppressed their responses. However, in light of their self-reports on fantasizing more about children or pubescents than about physically mature females this seems very unlikely.

There were no differences between the five compared groups in regard to mean size of phallometric responses, but the mean response of the bisexual pedophiles was very much lower than that of 10 years younger control volunteers. This might have caused only a distortion of those differences in a sector which was of minor importance to the study. It appears unlikely that age differences could have influenced phallometric results in ways other than through differences in O.I. Differences in education are unlikely to interfere with phallometric diagnoses substantially where full admitters are being considered.

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