

Sadomasochistically Oriented Behavior: Diversity in Practice and Meaning¹

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One hundred and eighty-four subjects (22 women and 162 men) who were members of two sadomasochistically oriented clubs answered a semistructured questionnaire containing items relating to a variety of sexual behaviors. Using a multivariate statistical analysis that geometrically represents the co-occurrence of individual actions as a visual array (Guttman (1954). In Lazarfeld, P. E. (ed.), Mathematical Thinking in the Social Sciences, Free Press, Glencoe, IL.) four qualitatively different sexual scripts emerged: hypermasculinity; administration and receiving of pain; physical restriction; and psychological humiliation. Although similar themes have been suggested before, this study demonstrated their empirical base. Humiliation was significantly associated more with females and with heterosexual orientation in men, while hypermasculinity was associated with males and with homosexual orientation in men.

KEY WORDS: sadomasochism; homosexuality; heterosexuality; hypermasculinity; humiliation.

INTRODUCTION

The current conceptualization of sadomasochism relies on a label of convenience for a set of related sexual activities of particular subcultures (Haerberle, 1978; Katchadourian and Lunde 1972/1975). Facets include physical restriction and bondage (Baumeister, 1988) and humiliation (Baumeister, 1988; Moser and Levitt, 1987; Weinberg, 1987). Additionally, Weinberg *et al.* (1984), Lee (1979), and Kamel (1983) refer to a subset of behaviors commonly associated with the gay

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male 'leather' scene that, to observers, appears to be sadomasochistic in origin. These behaviors include enemas, catheters, anal fisting, and scatological practices, and are sometimes described by the subjects as displays of 'masculinity and toughness' (Weinberg *et al.*, 1984, p. 387).

The evidence for these facets of pain, restriction, and humiliation and Weinberg *et al.*'s identification of hypermasculinity (Weinberg *et al.*, 1984) as being related sets of actions remains speculative because there have, to date, been no correlative studies examining the notionally related facets of these groups of sexual behaviors. That is, are the behaviors associated with each of these suggested facets more empirically interrelated with one another than with behaviors of the other facets? Or, more specifically, are there subsets of, for example, physically restrictive acts (handcuffs, straitjackets, use of chains) or pain creating actions (skinbranding, caning, spanking) that are empirically related? This would provide empirical support for the existence of distinct themes within sadomasochistic sexual behavior.

The present study sought not to identify these sets of actions as defining of sadomasochism but rather to map out the empirical relationships between the individual acts performed by individuals engaged in the sadomasochistic subculture. The concern was to establish the extent to which individual actions bear an empirical relationship to one another. It is therefore important to bear in mind that while these sets of actions are commonly considered to be sadomasochistic and therefore take on the connotation of 'describing' sadomasochists, they are actually a set of descriptions about subsets of interactions that occur between individuals engaged in a variety of behaviors. For example, in Weinberg *et al.*'s exploration (Weinberg *et al.*, 1984) of the 'leather' scene subjects engaged in dressing up in leather, using chains and anal fisting did not consider themselves sadomasochists.

Similarly, previous studies have not taken account of the potential preferences that may exist for individuals in engaging in one facet (i.e., the administration or receiving of pain) over another facet (i.e., humiliation). One possibility is that individuals would only engage in a limited set of behaviors and not in others suggesting that sadomasochism is in fact a label for a number of independent phenomena. Another possibility is that individuals emphasize a particular set of behaviors but also engage in other behaviors to a more limited extent. This would suggest that it makes sense to conceptualize sadomasochism as a distinct phenomenon. Also, there have been no investigations exploring whether a preference for one facet over another is related to the sex and the sexual orientation of the subjects, and whether there is a preference for the 'sadistic' or the 'masochistic' partner to engage in one facet more than any other.

Finally, the reasons for an individual developing a preference for a particular set of sadomasochistic sexual behaviors has not been thoroughly clarified. In fact, some recent studies (Nordling *et al.*, 2000; Santtila *et al.*, accepted) have shown evidence for associations between childhood experiences and aspects of sadomasochistic behavior whereas the importance of an ongoing process of adult

socialization has been stressed by more sociologically oriented researchers. Weinberg *et al.* (1984) criticized traditional models for ignoring the sadomasochistic subculture. According to them, this subculture provides opportunities for persons to define and elaborate their sexual activities. Also, the finding that the sexual activity that occurs in a sadomasochistic scene is often, but not always, scripted and therefore collaborative (Weinberg, 1987), suggests that individual sexual repertoires are socially constructed. An attempt was made in the present study to explore whether the extent to which the subjects were integrated into the sadomasochistic scene (defined as the frequency of sadomasochistic sessions and involvement with pornographic material of a similar nature) would predict the flexibility of their sexual repertoires within each of the suggested sadomasochistic subthemes.

In summary, we were interested in establishing what evidence existed for identifying the facets of sadomasochism previously referred to by others (physical restriction, administration and receiving of pain and psychological and physical humiliation as well as hypermasculinity), the potential relationship that these domains may have with other factors in the individuals' lives as well as the extent to which the degree of involvement in the sadomasochistic subculture would predict the flexibility of the subjects' sexual repertoires. It was expected that female subjects would be more likely to engage in behaviors related to humiliation (Messman and Long, 1996) whereas gay male subjects would report more behaviors related to hypermasculinity (Weinberg *et al.*, 1984).

METHOD

Subjects

One hundred and eighty-four subjects (22 women and 162 men) who were members of two sadomasochistically oriented clubs participated in this study (two subjects were discarded due to lack of responses on questions related to specific sexual behaviors). Ninety-five were recruited from Kinky Club, a club for mainly heterosexual people with a variety of sexual preferences. Ninety-one subjects were recruited from the MSC-Finland association with mainly gay male members. Of the subjects, 43.0% reported being mainly heterosexual, 5.4% bisexual, and 51.6% mainly homosexual. Of all subjects, 27.0% identified themselves as mainly sadistic, 22.7% as both sadistic and masochistic, and 50.2% as mainly masochistic in their sadomasochistic behavior.

Subjects were highly educated (over a third had a university degree). They also had a higher income level than the population in general (Statistical Yearbook of Finland, 1993) with half having a monthly income of more than 2000 US dollars. This study group, as with others previously explored (Baumeister, 1988; Spengler, 1977; Weinberg, 1987) is suggestive of a group of subjects who are not psychologically disturbed or dysfunctional but are rather better educated and in a

generally higher earning bracket than the general population. (For more details on the demographic and sexual characteristics of the males in the study group, see Sandnabba *et al.*, 1999).

Materials

The Questionnaire

Information selected for this study was taken from a larger survey conducted by Sandnabba *et al.* (1999) in which the authors were investigating the social adaptation and variety of sexual behaviors of sadomasochists. The original questionnaire was designed as a descriptive analysis of the range of behaviors that sadomasochists indulged in and as a descriptive analysis of the study group. For the purposes of the present study the focus was upon the set of activities engaged in and the empirical relationships between them. Concentration was therefore upon elements of behavior within sadomasochistic encounters. This included items pertaining to the various practices of the subjects on a dichotomous basis, that is, had they indulged in a particular behavior at any point during the last 12 months. This list included a number of activities previously listed in studies on the behavior of individuals in the sadomasochistic scene. Additionally, questions (other than the demographic information already outlined) were asked regarding the number of sadomasochistic sessions during the preceding year and the extent to which the subjects had acquired sadomasochistic pornographic magazines during the same time period for the purpose of exploring any relationships between these variables and the sadomasochistic behaviors of the subjects.

Statistical Analysis: SSA

Based on the joint co-occurrence of behaviors, the 184 questionnaires were analyzed using Smallest Space Analysis (SSA). SSA is a nonmetric multidimensional scaling procedure that represents the associations between variables as the inverse of distances in a statistically derived geometric space—the greater the similarity between two variables the greater their proximity in the corresponding space (Guttman, 1968). SSA is based upon the assumption that the underlying structure of complex behavioral systems is most readily appreciated if the relationship between each and every other variable is examined (Canter and Heritage, 1990). The SSA-I program computes association coefficients between all variables and rank orders them, creating a triangular matrix consisting of association coefficients for each variable against every other variable. It is these rank ordered coefficients, rather than their absolute values that are used to form the spatial representation of variables. By using these rank ordered coefficients, SSA is able to represent the variables in the smallest possible dimensionality.

To find an optimal representation of the variables, SSA-I performs iterations that compare the rank order assigned to the *original* associations with the rank order of the distances between points in the plot (which the program calculates from a *derived* association matrix). With each iteration, adjustments are made to the geometric representation in an attempt to minimize the difference between the plot and the original association matrix. The closer the two sets of rank orders are, the better the fit. These iterations continue until the difference between these two matrices is at a minimum. The degree of fit between the geometric representation and the original input similarity data is indicated by Guttman's coefficient of alienation (Guttman, 1968). The coefficient of alienation ranges from 0 (*indicating a perfect fit*) to 1. A coefficient of .20–.25 is considered a reasonably good degree of fit (Shye *et al.*, 1994).

The resulting configuration of points in the SSA is based solely upon the relationships among variables. Therefore, these points can be examined directly without assuming underlying dimensions as in factor analysis (Canter and Heritage, 1990). Classifying variables through an examination of the regional structure in an SSA is part of an approach to research known as facet theory (Canter, 1985). The elements of 'facets' in this case refer to the overall classification of behaviors into 'types' (i.e., hypermasculinity, administration of pain, humiliation, and physical restriction). The spatial contiguity of the variables representing these facet elements provides a test of the major underlying differences among these variables as revealed through their co-occurrence in sadomasochistic behaviors, and is therefore a test as to whether the facet structure is empirically supported (Canter *et al.*, 1998).

The postulation of facet elements goes beyond simply saying that behaviors belong in particular 'groups.' The principle of contiguity states that, "... variables which are more similar in their facet structure will also be more related empirically" (Foa, 1965, p. 264). Therefore, variables that share the same facet elements would be more highly correlated and thus should appear closer together in the multidimensional space. This idea can be extended as a general, regional hypothesis. Basically, items that have facet elements in common will be found in the same region of space. Likewise, variables that have very low intercorrelations will appear in different regions of the plot indicating dissimilarity.

For further elaboration of the technique, the range of applied fields within which it has been used, and its strengths and weaknesses see Canter (1983), Elizur and Sagie (1999), Guttman (1954), and Shye *et al.* (1994).

RESULTS

A two-dimensional solution was employed to represent the association matrix, where the coefficient of alienation was .27. This is a reasonably high coefficient indicating that the fit between the representation and the actual ranked associations

was not particularly good. However, as Shye (1994, p. 125) states

in the past it has been customary to attempt SSA solutions of increased dimensionality whenever the coefficient was considered high . . . This procedure has, however, been found lacking both on technical and on theoretical grounds [since] the coefficient of alienation is sensitive to the number of items processed.

Although our results suggest that the geometric output is not a perfect representation of the variables, the two-dimensional arrangement of variables did approximate the conceptual system of sadomasochism as hypothesized in previous work (Baumeister, 1988; Messman and Long, 1996; Moser and Levitt, 1987; Weinberg *et al.*, 1984). Moreover, employment of a three-dimensional representation did not significantly lower the coefficient of alienation, nor, more importantly did it change the first (two-dimensional configuration) projection of the points. Thus, whilst higher dimensional models may reveal other, more subtle nuances of this set of sexual activities, the two-dimensional model does reflect an interpretable, conceptually and empirically supported model. As Shye (1994, p. 126) states that, "If a regional contiguity pattern in a two-dimensional solution conforms well to a content facet formulated in advance and if evidence for this conformity is accumulated, the purpose of theory construction has been achieved."

Figure 1 therefore shows the projection of the two-dimensional space. Table I displays the behaviors (and frequency of occurrence) separated into the hypothesized polar regions along with their associated Cronbach's alpha coefficients. These ranged from .71 (*humiliation*) to .78 (*administration of pain*) and while not indicative of perfect scales of behavior are reasonably high given, in some of the regions, the relatively small number of items (i.e., only 5 items in *humiliation*). It is important, however, not to consider these as discrete regions, but rather as a polarizing spectrum of gradual change around the midpoint intersection of all the regions. Thus, cusp variables such as wrestling and bondage in the *physical restriction* region are associated relatively more with their adjacent *hypermasculine* region than with mummification, which lies near the cusp of its

Table I. The Frequency of the Sexual Behaviors in the Different Regions of the SSA Space with Associated Cronbach's α Coefficients

Hypermasculinity ($N = 8, \alpha = .75$)	Administration of pain ($N = 7,$ $\alpha = .78$)		Humiliation ($N = 5, \alpha = .72$)		Physical restriction ($N = 9, \alpha = .75$)		
	%	%	%	%	%	%	
Rimming	77.5	Clothspins	67.6	Flagellation	81.8	Bondage	88.4
Dildo	70.2	Spanking	64.0	Verbal humiliation	70.1	Handcuffs	73.2
Cockbinding	68.3	Caning	50.7	Gag	53.0	Chains	70.8
Watersports	50.6	Weights	41.5	Faceslapping	37.2	Wrestle	45.1
Enema	42.7	Hot wax	34.8	Knives	10.9	Slings	39.0
Fistfucking	32.9	Electricity	16.4			Ice	31.7
Scatologia	18.2	Skinbranding	15.8			Straitjacket	17.0
Catheter	10.4					Hypoxyphilia	16.5
						Mummifying	13.4

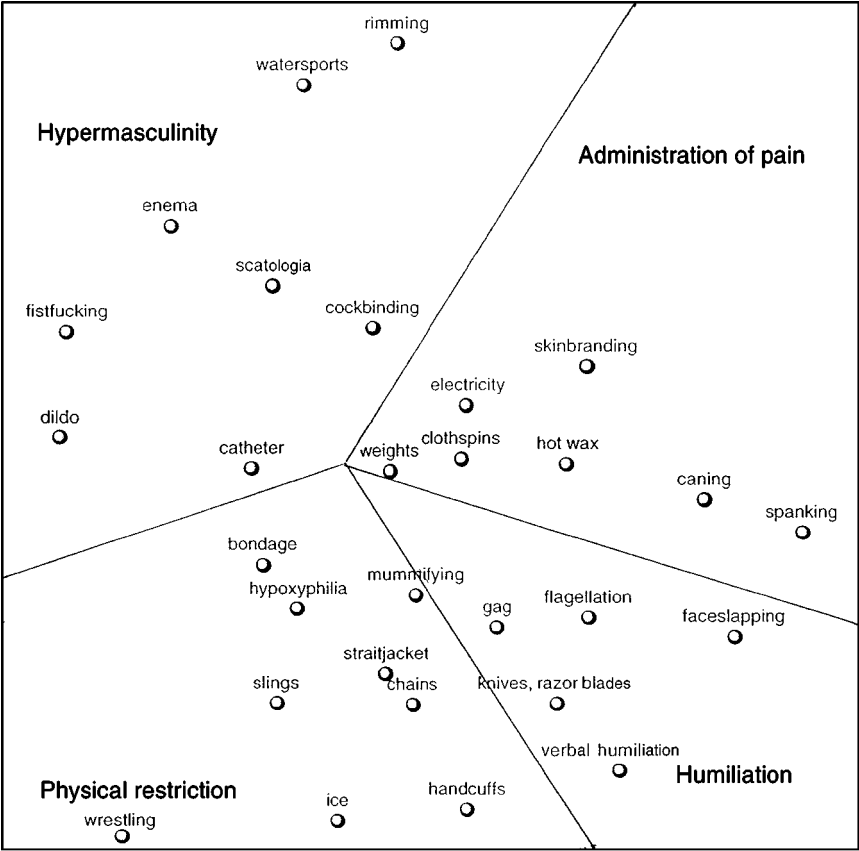


Fig. 1. A two-dimensional Smallest Space Analysis of sadomasochistic behaviors in a sample of 184 subjects.

contiguous set of related variables in the *humiliation* region. This visual map of the correlation matrix, therefore, reveals evidence of a circular ordering of the variables from *hypermasculine*, through to the *administration of pain*, to *humiliation*, *physical restriction* and back, full circle to *hypermasculine*. This also suggests that sadomasochism can be conceptualized as a set of interrelated behaviors where individuals give different emphases to particular themes rather than it being a label of convenience for a number of independent phenomena.

To establish whether there were relationships between the subjects' sex, sexual orientation, and sadomasochistic preference and any of the themes, summary variables reflecting the number of behaviors present in the separate regions of the plot were formed. Thereafter, any differences between the male and female subjects and between the predominantly and exclusively heterosexual male and predominantly and exclusively gay male subjects (bisexual subjects were discarded

Table II. Number of Sexual Behaviors in the Different Regions of the SSA Space in Groups of Gay Male and Heterosexual Male Subjects and in Groups of Sadistic and Masochistic Subjects

Region	Heterosexual (<i>N</i> = 64)		Gay male (<i>N</i> = 89)		Sadistic (<i>N</i> = 42)		Masochistic (<i>N</i> = 80)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Hypermasculinity	3.17	2.17	4.03	1.95	3.40	2.07	4.05	2.04
Administration of pain	3.09	2.15	2.74	1.99	2.55	1.99	3.16	2.11
Humiliation	2.88	1.32	2.28	1.46	2.40	1.50	2.64	1.49
Physical restriction	3.91	2.24	3.97	2.11	3.81	2.27	4.02	2.32

from this analysis) and also between the predominantly and exclusively sadistic male and predominantly and exclusively masochistic male (flexible subjects were discarded from this analysis) were explored using the Student's *t*-test. (Only male subjects were included in the two latter analyses due to the low number of female subjects in the study group). Female subjects engaged in significantly more of the behaviors in the humiliation region ($M = 3.14$, $SD = 1.70$) compared to male subjects ($M = 2.56$, $SD = 1.46$), $t(182) = 1.70$, $p < .05$, whereas the male subjects engaged in more of the behaviors in the hypermasculinity region ($M = 3.75$, $SD = 2.14$) compared to female subjects ($M = 2.50$, $SD = 1.90$), $t(182) = 2.62$, $p < .01$. The means and standard deviations for the other analyses are presented in Table II. There were significant differences between the hetero- and gay male subjects in terms of their involvement in the *hypermasculinity* and *humiliation* regions. As expected, the gay male subjects were more likely to engage in a larger number of the behaviors of the *hypermasculinity* region ($t(151) = 2.57$, $p < .01$) compared to the heterosexual male subjects whereas the latter were more likely to engage in a larger number of humiliation behaviors ($t(151) = 2.59$, $p < .01$). In terms of the sadomasochistic preference, there were nonsignificant tendencies for the masochistic male subjects to have engaged in a larger number of behaviors in both the *hypermasculinity* ($t(120) = 1.65$, $p < .10$) and the *administration of pain* ($t(120) = 1.56$, $p < .12$) regions compared to the sadistic male subjects.

Next, Pearson's correlation coefficients were computed between the variables indicating the subjects' involvement in the sadomasochistic subculture (number of sadomasochistic sessions, use of sadomasochistic pornography) and the number of sexual behaviors within the different regions that the subjects had engaged in during the preceding year (see Table III). As expected, positive and significant associations could be observed. However, the absolute values of the coefficients were not particularly impressive.

DISCUSSION

Our results are encouraging in supporting previous references to various facets of sadomasochistically oriented behavior. At a broad level, these appear to take

Table III. Correlations Between Measures of Involvement in Sadomasochistic Subculture and the Number of Behaviors Engaged in the Different Regions of the SSA Space

Number of behaviors engaged in the different regions	Number of sadomasochistic sessions	Use of sadomasochistic pornographic material
Hypermasculinity	.24***	.19**
Administration of pain	.23**	.24***
Humiliation	.18*	.21**
Physical restriction	.10	.19**

* $p < .05$; ** $p < .01$; *** $p < .001$.

on different functions for men and women on the one hand and gay men and heterosexual men on the other. The female subjects significantly preferred themes associated with humiliation whereas the male subjects were more likely to engage in themes related to hypermasculinity. In other words, at opposing poles lie the facets of hypermasculinity and humiliation and in adjacent regions lie the physical aspects of restriction and the administration of pain. Elements of humiliation are significantly preferred by the women and by the heterosexual males in the study group and were revealed in the correspondence between faceslapping, flagellation, the use of a gag, the use of knives and razors, and verbal humiliation. Thus, actions significantly preferred especially by the gay men involved rimming; watersports; cockbinding; fistfucking; scatologia; and the use of dildos, enemas, and catheters. We would suggest that adjacent facets (restriction and pain) to these two regions can take on rather different meanings for each group but are important components of the full picture of sadomasochistic behavior.

Our results confirmed that the following acts were associated with one another: subjecting individuals to (sadistic component) or receiving (masochistic component) electric shocks, skinbranding, caning, spanking, the use of hot wax, clothespins, and the use of weights. It is perhaps significant that the more extreme and intense of these experiences (skinbranding and electrocution) are located nearer the hypermasculine region, whereas spanking and caning appear next to the humiliation region. This may be suggestive of subtle variations in the context within which pain is administered and received and the meaning that it has for the different subjects and, potentially, for different sexes and for different sexual orientations. For example, as noted in Lee (1979), Kamel (1983), and Weinberg *et al.*'s examinations (Weinberg *et al.*, 1984) of the gay 'leather' scene an emphasis is placed either upon the masculinity of the activities involved and/or the extent to which the bruises and welts received represent a 'sign of love and/or surrender' (Weinberg *et al.*, 1984, p. 387). In contrast, the caning and spanking aspects of pain administration and reception may be more indicative of the associated facet of humiliation and the adoption of a set of activities associated with the 'illusion of violence' (Weinberg and Kamel, 1983). As Gebhard (1969) points out, individuals involved in the heterosexual sadomasochistic scene rarely highlight pain as a central facet. As Califia (1979, p. 21) points out, "The basic dynamic of S and M

is a power dichotomy, not pain.” Our results suggest that the administration and receiving of pain may take on rather different meanings depending upon the context within which it is received and, of course, depending upon the intensity of the sensation delivered/experienced. In other words, pain may, for some individuals, be rather more literal (hypermasculine) than be symbolic (humiliation).

Secondly, reference has been made to the physically restrictive acts associated with sadomasochistic practices. Bondage; mummification; hypoxiphilia; the use of straitjackets, chains, handcuffs, slings and ice, as well as wrestling with one’s partner were all located in this region. Significantly, however, bondage, hypoxiphilia, and wrestling are adjacent to the hypermasculinity region whereas mummification, straitjackets, chains, and handcuffs are adjacent to the humiliation region. Once again, this emphasizes the potentially different psychological symbolism of different aspects of restriction for different parties.

The advantage of the multivariate scaling analysis presented here is that it represents the relationships between each and every variable and thus allows for refinements and more subtle developments of hypotheses regarding the nature of the domain under investigation. Thus, these findings are not definitive but rather generative of more refined hypotheses regarding associations of particular actions. Subsequent studies could follow up the extent to which different individuals draw upon facets of pain and restriction in order to heighten the intensity of their experiences. This contextualizing of these components clearly has significant psychological meaning for the acting out of the subjects of this particular group but of course, whether this is a generalizable finding to other sadomasochistic groups remains open to question. The particular structure here may be indicative of differences between the styles of the clubs examined rather than between the sexuality of the subjects. Subsequent work would need to clarify this issue and explore a range of homo- and heterosexual-oriented clubs to explore whether the differences established here are an artifact of the club rather than an association with an individual’s sexual preferences. The subjects’ involvement in the sadomasochistic subculture through sexual contacts and pornography was positively associated with greater variability in their sexual behavior. Although the design of the study does not warrant any causal conclusions, the results imply that sadomasochistic behavior is best understood as a product of adult socialization processes where real or imagined sexual contact leads the subjects to adopt new behaviors and sexual scripts. This finding accords well with social constructionistic explanations of sexual behavior (Weinberg, 1987; Weinberg *et al.*, 1984).

In this study group, results suggest that for the gay male group the administration and reception of pain was a more intense and real perception and that the symbolic representation of pain was more important for the women and the heterosexual men. Similarly, the restrictive acts in this particular heterosexual group appear to have a more symbolically humiliating association than the more physically intense aspects of restriction located nearer to the hypermasculinity

region preferred by the gay male subjects. The subtleties of the meanings of these actions, however, will remain speculative until further research is able to explore how individuals employ these facets within their own particular context. This may mean that the outcome of our study provides the basis for developing interviewing protocols or surveys that will help capture the meaning that restriction, pain, humiliation, and masculinization takes on for different subsets of the sadomasochistic population.

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