Dimensions of Perceptions of Social-Sexual Behavior in a Work Setting[1]

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Although sexual harassment has become an important and controversial topic in social science research in recent years, little research has been done regarding the factors involved in the perception of a single ambiguous social-sexual incident. Furthering the analysis of Gutek, Morasch, and Cohen (1983), factor analytic, cluster analytic, and multidimensional scaling techniques were supplied to a set of 19 questions which were used to evaluate some ambiguous vignettes that could have been considered instances of sexual harassment. These analyses yielded four major clusters: (1) variables relating to the interpersonal relationship between the individuals in the vignette, (2) personal aspects of the incident, (3) questions relating specifically to sexual harassment, and (4) questions regarding the likelihood of the incident. Questions about "sexual" and "harassing" aspects of the incident were less central to its evaluation by college students than were those about the incident's personal qualities and about the relationship between the two people.

The sexual harassment of people at work and/or at school has become an important and controversial topic in recent years. Public interest in this topic has been reflected in movies, comic strips, and news features. Recently an entire issue of the *Journal of Social Issues* was devoted to the topic of sexual harassment (Brewer & Berk, 1982).

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Much of the research into sexual harassment has been of a descriptive nature, determining the frequency of sexual harassment, as well as who is harassed by whom and under what conditions. This is usually done as part of a large-scale survey (Gutek, 1985; Gutek, Nakamura, Gahart, Handschumacher, & Russell, 1980; Littler-Bishop, Seidler-Feller, & Opaluch, 1982; Tangri, Burt, & Johnson, 1982; U.S. Merit Systems Protection Board, or USMSPB, 1981). Jensen and Gutek (1982) have also studied people's attributions in situations of sexual harassment, and Livingston (1982) has discussed legal and organizational implications and responses to sexual harassment.

A few studies have presented subjects with ambiguous scenarios which may depict sexual harassment (Gutek, Morasch, & Cohen, 1983; Reilly, Carpenter, Dull, & Bartlett, 1982; Terpstra & Baker, 1983; Weber-Burdin & Rossi, 1982). Such studies help to determine whether outsiders consider the same gender and status variables to be as important as do the targets of sexual harassment. In addition, Powell (1983) has studied the effects of people's sex-role identity on their definitions of sexual harassment.

Some theoretical speculation has been done on the causes of sexual harassment. Tangri et al. (1982) explored the possibilities that sexual harassment may be caused by natural social-sexual attraction, the nature of organizations, and/or the way our society stratifies power and status between men and women. Gutek (Gutek & Morasch, 1982; Nieva & Gutek, 1981, pp. 62-64) has discussed sex roles and work roles, and how the two may become confused in the case of working women.

Most research has focused on factors that differentiate incidents of possible sexual harassment. Such factors include the gender, status, and relative power of the initiator and the target. There has been little investigation of the variables that psychologically define a single incident as a case of sexual harassment. The topic of sexual harassment is a difficult one to define on the level of the single incident because these incidents are frequently ambiguous in their intent and effect, leading individuals to superimpose their own preexisting attitudes onto the event. This topic is nevertheless important because the legal system and other grievance procedures must judge whether or not isolated incidents are sexual harassment. Only one incident needs to occur for a judgment of sexual harassment to be rendered. It is also important because most observers of sexual harassment witness only one instance of the behaviors in question, rather than being a witness to repeated incidents (A. Scales, personal communication, 1982, 1984).

Gutek et al. (1983) looked at which variables define an incident as sexual harassment. In their study, each of the subjects—all of whom were

college students—were presented with a short ambiguous scenario and were asked 19 questions about what went on in it. The central thrust of this study was to relate these 19 dependent questions to the independent variables of the sex of the respondent, the gender of both the target and the initiator in the scene, the relative status of the target and initiator, and the depicted behavior of the initiator. As part of the analyses, the 19 dependent measures were factor analyzed with varimax rotation using the SPSS statistical program (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975). The factors that emerged were the relationship between the initiator and the target, the evaluation of the incident, the appropriateness of the behavior, the probability of the reverse behavior, and the likelihood of the incident happening and occurring again in the future.

This article is an extension of the results of Gutek et al. (1983). The data set of the Gutek study was used, and principal components analysis, complete-link cluster analysis, multidimensional scaling, maximum likelihood factor analysis, and average-link cluster analysis were performed to determine the overall structure of the elements that contributed to the college student subjects' perceptions of an ambiguous social-sexual incident. While the results are dependent on the nature of the input variables, the convergence of the solutions of these several differing techniques with similar applications enhances the generality of the results beyond any specific technique, given the set of input variables.

METHOD

Materials

The subjects' task involved reading a short vignette that depicted a single interaction between a man and a woman at work. The scenes in the vignettes were ambiguous as to whether sexual harassment had occurred. Three independent variables were manipulated in the vignettes. The first manipulated variable was the sex of the initiator. On one level, the initiator was male and the target was female; on the other level, the initiator was female and the target was male. The second variable was the status of the initiator relative to the target; the initiator was either of a lower status, an equal status, or a higher status than the target. The third variable was the behavior. In one condition, the initiator patted the target on the fanny while commenting on the target's body. In the second condition, the initiator patted the target on the fanny while commenting on the target's work. In the third condition, the initiator passed the target in the hall and

commented on the target's body (without touching the target). Eighteen versions of the instrument (two levels of initiator sex, three levels of status, and three levels of behavior) were produced. One version—male initiator, high status initiator, patting while commenting on work—follows: "Jane is walking slowly down the hall at work. Mr. Davidson, Jane's boss, walks up from behind. As Mr. Davidson passes Jane, he pats her on the fanny and says, 'Hurry up, you'll never get everything done today.'"

All of the options are included in the following version:

> Jane (Ms. Johnson/Jim/Mr. Johnson) is walking slowly down the hall at work. Dave (Mr. Davidson/Diane/Ms. Davidson), (1) who works for Jane (etc.), or (2) who works with Jane (etc.), or (3) Jane's (etc.) boss, walks up from behind. As Dave (etc.) passes Jane (etc.), he/she (1) pats him/her on the fanny and says, "You must be doing a lot of running these days; your body looks terrific"; or (2) pats him/her on the fanny and says, "Hurry up; you'll never get everything done today"; or (3) says, "You must be doing a lot of running these days; your body looks terrific."

Following the vignette were 19 5-point Likert-type items, shown in Table I. Some items assessed how much the initiator and the target liked

Table I. Nineteen Questions Asked in Study[a]

Question number /letter	Item
1. A	Are (target) and (initiator) friends?
2. B	Does (initiator) respect (target)?
3. C	Does (target) respect (initiator)?
4. D	Does (initiator) like (target)?
5. E	Does (target) like (initiator)?
6. F	How complimentary is (initiator's) behavior toward (target)?
7. G	Is it friendly?
8. H	Is it sexual?
9. I	Is it insulting?
10. J	Does (initiator's) behavior indicate that (s)he has more power than (target) in their relationship?
11. K	Is this behavior a form of ingratiation on (initiator's) part toward (target)?
12. L	To what extent would (target) welcome behavior like this in the future from (initiator)?
13. M	How likely is this incident to happen?
14. N	How appropriate is (initiator's) behavior?
15. O	How likely is this incident to repeat itself in the future?
16. P	Sometimes people do silly or humorous things toward each other at work. Is this such a humorous incident?
17. Q	Do (initiator) and (target) work well together?
18. R	How likely is the reverse incident to happen, that is, for (target) to behave this way towards (initiator)?
19. S	To what extent would (initiator) welcome behavior like this in the future from (target)?

[a]In the questionnaires which followed the vignettes, (target) was filled by "Jane," "Ms. Johnson," "Jim," or "Mr. Johnson" and (initiator) was filled by "Dave," "Mr. Davidson," "Diane," or "Ms. Davidson," as was appropriate to the status and gender relationships in the vignette.

each other and how much they respected each other. Other items assessed the incident: Was it ingratiating, friendly, sexual, appropriate, insulting? Other items were concerned with the likelihood of the event happening, of it happening again in the future, or of the reverse case happening. Some respondent information—age, religiosity, work experience, and sex (the fourth independent variable)—was also assessed.

Procedure and Subjects

Two hundred eighteen undergraduate psychology students each completed 1 of the 18 versions of the instrument either before or after a regularly scheduled class. Because answers on 1 or more of the 19 dependent questions were missing for 15 of the 218 subjects, these cases were omitted for a resultant sample size of 203.

RESULTS

The analyses reported in this section are based on the pooled data of all vignette conditions. Since the purpose of this investigation was to discover underlying factors in the perceptions of all ambiguous events which are potential cases of sexual harassment, these analyses were not differentiated into the various conditions. The principal components analysis (PCA) was performed with varimax rotation using BMDP program 4M (Dixon, 1981). Complete listings of the factor loadings are shown in Table II. Five eigenvalues of the unaltered correlation matrix were greater than 1.00. Since the fifth factor was not meaningfully interpretable, and since it had a low eigenvalue (1.04) and explained very little variance (6.9%), the fifth factor was dropped and the analysis was redone with a limit of four factors.

As Table II shows, seven variables load on PCA Factor 1 with absolute values greater than .400; these variables were questions about the incident in the vignette. They appear to get at aspects of the incident which are personal, assessing the degree to which the behavior in question may be complimentary, friendly, and/or insulting.

The PCA Factor 2 has seven variables with absolute values greater than .400, as also shown in Table II. This factor encompasses inter-personal variables such as liking and respect. Questions that assessed the interpersonal relationship between the people in the vignettes form a cohesive factor.

Factor 3 also taps into aspects of the incident. As with Factors 1 and 2, the seven variables with absolute loadings greater than .400 on Factor 3

Table II. Rotated Factor Loadings for Principal Compo-
nents Analysis

Question number/letter	Factor 1	Factor 2	Factor 3	Factor 4
1. A	.115	.767[a]	−.042	−.174
2. B	.374	.503[a]	−.491[a]	−.123
3. C	.119	.720[a]	−.449[a]	.001
4. D	.278	.598[a]	.278	−.064
5. E	.170	.772[a]	−.301	.034
6. F	.802[a]	.222	−.156	−.115
7. G	.637[a]	.386	−.190	−.057
8. H	.060	−.086	.743[a]	.121
9. I	−.641[a]	−.160	.402[a]	.044
10. J	−.359	.082	.518[a]	.020
11. K	−.161	.026	.570[a]	−.074
12. L	.741[a]	.346	−.170	.079
13. M	.034	−.018	−.082	.855[a]
14. N	.555[a]	.203	−.550[a]	.224
15. O	−.027	−.013	.082	.802[a]
16. P	.122	.431[a]	.189	.065
17. Q	.381	.641[a]	−.028	.158
18. R	.562[a]	.155	−.093	−.063
19. S	594[a]	.071	.174	.268
Variance ac-counted by rotated factor	18.8%	17.6%	12.6%	8.6%

[a]Absolute value of factor loading > .400.

are shown in Table II. This factor includes the questions that principally determine whether the incident was perceived to be sexual harassment in that it includes items about whether the incident was appropriate and sexual. Relative power and interpersonal respect, which also help to determine whether an incident is sexual harassment, also loaded highly on this factor. Factor 4 consisted of two variables and is a likelihood factor, assessing whether the incident is perceived to be one which would realistically occur, and if so occur again.

A note of caution concerning the results of this principal components analysis must be expressed: It accounted for only 57.6% of the variance in the 19 variables. The factors found are therefore not especially strong, and much of the variance in the data cannot be explained by these analyses.

A complete-link cluster analysis was performed using BMDP program 1M (Dixon, 1981), with the absolute values of the variables' correlations serving as the similarities measure. The entire complete-link hierarchy is shown in Table III. If the four-group solution (level 15) is considered, there is fair agreement with the principal components analysis. Factor 1, Factor 2, and Factor 4 are all well approximated by three of the four clusters. The

Table III. Complete-Link Cluster Analysis Hierarchy

Level	Minimum correla- tion in any subset	Partition
0	–	[(A), (B), (C), (D), (E), (F), (G), (H), (I), (J), (K), (L), (M), (N), (O), (P), (Q), (R), (S)]
1	.6775	[(F, G), (A), (B), (C), (D), (E), (H), (I), (J), (K), (L), (M), (N), (O), (P), (Q), (R), (S)]
2	.6730	[(C, E), (F, G), (A), (B), (D), (H), (I), (J), (K), (L), (M), (N), (O), (P), (Q), (R), (S)]
3	.6179	[(C, E), (F, G), (L, N), (A), (B), (D), (H), (I), (J), (K), (M), (O), (P), (Q), (R), (S)]
4	.5355	[(B, I), (C, E), (F, G), (L, N), (A), (D), (H), (J), (K), (M), (O), (P), (Q), (R), (S)]
5	.5034	[(B, I, L, N), (C, E), (F, G), (A), (D), (H), (J), (K), (M), (O), (P), (Q), (R), (S)]
6	.4787	[(A, C, E), (B, I, L, N), (F, G), (D), (H), (J), (K), (M), (O), (P), (Q), (R), (S)]
7	.4619	[(A, C, E), (B, I, L, N), (F, G), (M, O), (D), (H), (J), (K), (P), (Q), (R), (S)]
8	.4498	[(A, C, E), (B, F, G, I, L, N), (M, O), (D), (H), (J), (K), (P), (Q), (R), (S)]
9	.4295	[(A, C, E, Q), (B, F, G, I, L, N), (M, O), (D), (H), (J), (K), (P), (R), (S)]
10	.3465	[(A, C, E, Q), (B, F, G, I, L, N), (H, J), (M, O), (D), (K), (P), (R), (S)]
11	.2900	[(A, C, D, E, Q), (B, F, G, I, L, N), (H, J), (M, O), (K), (P), (R), (S)]
12	.2754	[(A, C, D, E, Q), (B, F, G, I, L, N, R), (H, J), (M, O). (K), (P), (S)]
13	.2189	[(A, C, D, E, Q), (B, F, G, I, L, N, R), (H, J, K), (M, O), (P), (S)]
14	.1547	[(A, C, D, E, P, Q), (B, F, G, I, L, N, R), (H, J, K), (M, O), (S)]
15	.1493	[(A, C, D, E, P, Q), (B, F, G, I, L. N, R, S), (H, J, K), (M, O)]
16	.0828	[(A, C, D, E, P, Q), (B, F, G, H, I, J, K, L, N, R, S), (M, O)]
17	.0098	[(A, C, D, E, M, O, P, Q), (B, F, G, H, I, J,K, L, N, R, S)]
18	.0051	[(A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S)]

remaining cluster contains members of Factor 3 which are not also taken in by Factors 1 and 2. Thus, when the fact that there can be no redundancy of variables in hierarchical cluster analysis is taken into account, there is excellent agreement between the complete-link and the PCA results.

A maximum likelihood factor analysis and an average-link culuster analysis were also performed. Since their results were generally comparable to the PCA and to the complete-link analyses respectively, they are not presented here in detail.

The absolute values of the variables' correlations were also subjected to a multidimensional scaling (MDS) analysis using the KYST-2A program

with the TORSCA initial configuration and the final configuration rotated to principal components (Kruskal, Young, & Seery, 1973). The two-dimensional solution (formula 1 stress = .172) is shown in Figure 1. In the two-dimensional case, the first dimension seems to spread the variables from those related to the personal relationship between the target and the initiator on one extreme to variables related to the incident on the other. The second dimension appears to qualitatively split the incident, with questions asking if it was light-hearted and friendly at one end, and heavy, serious questions assessing if it was sexual harassment at the other.

This two-dimensional multidimensional scaling solution helps to clarify cluster analytic and PCA results. Figure 1 also shows the four-group level of the complete-link cluster analysis embedded in the MDS graph. These two analyses are very consistent. To the left is the interpersonal cluster. In the center is a cluster reflecting personal aspects of the incident, and on the right is the likelihood cluster. The "sexual harassment" cluster is at the bottom. Note that the PCA "sexual harassment" Factor 3 is made by adding the four lowermost variables from the two main clusters involving
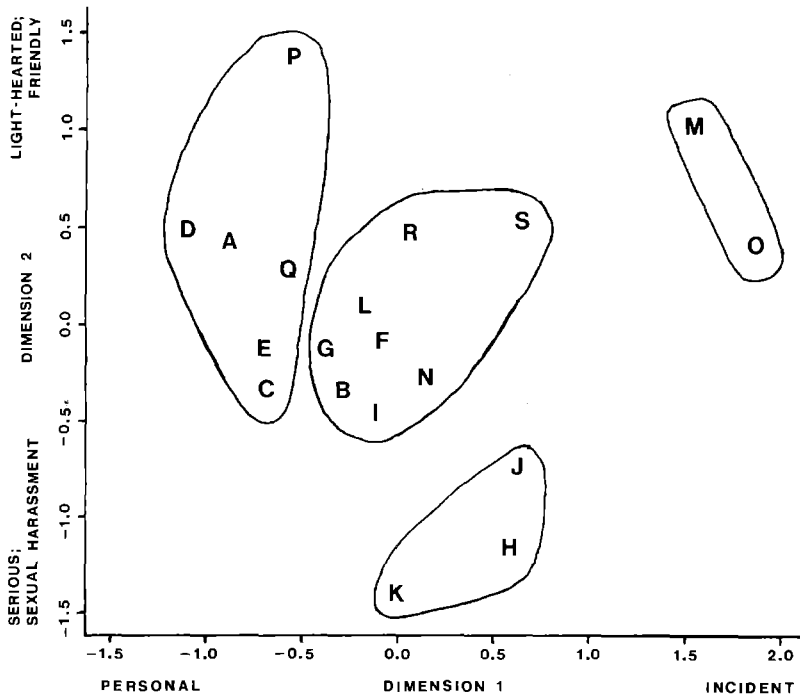

Fig. 1. Two-dimensional multidimensional scaling solution with four-group complete-link clusters.

the insulting aspects and appropriateness of the incident and the respect of the target and the initiator for each other to the lowermost cluster of variables pertaining to the sexual and ingratiating nature of the incident and the power of the initiator over the target. This is a larger but still consistent group at the bottom of the figure. The two-dimensional multidimensional scaling therefore provides a very good graphic representation of the complete-link cluster analysis and the principal components analysis, and the names assigned to the dimensions are further enhanced in the context of these other analyses.

DISCUSSION

The analyses presented here give fairly strong support to the existence of four major groups of variables which contribute to the evaluation of an incident that may be a case of sexual harassment, at least as measured by the instrument under discussion with college students as subjects. These factors are (1) a personal-aspects-of-the-incident factor, (2) an interpersonal factor, (3) a factor that directly assesses the "sexual" and "harassing" nature of the incident, and (4) a factor assessing the likelihood of the incident.

It is interesting to note that the direct "sexual harassment" variables form only the third most important factor in the principal components analysis, which accounts for only 12.6% of its variance. By itself, this result could easily be interpreted as an artifact of the input variables, which would change with different relative numbers and wordings of the questions. For this reason, numerous analytic techniques were employed; a convergent interpretation of all of them strengthens the conclusion. The maximum likelihood factor analysis provided essentially the same results as the PCA. In the complete-link cluster analysis, where each variable is uniquely assigned to one group at each stage, only three variables from Factor 3 formed an independent cluster in the four-group solution, and they formed this cluster at the relatively progressed levels 10 and 13. Variables that loaded highly on Factor 3 and also on Factors 1 or 2 clustered with Factors 1 or 2. The average-link cluster analysis also showed a similar pattern. The multidimensional scaling is consistent with these results and provides a useful visualization of them, with the core sexual harassment variables noticeably segregated from the others at the bottom of Figure 1.

These analyses, taken together, suggest that when interpreting a possible case of sexual harassment, observers (at least college students) place relatively little emphasis on variables that directly assess the sexual and harassing nature of the incident, and place more weight on the personal aspects of the incident and on the interpersonal relationship between those

involved. While the results reported here are somewhat specific to the research instrument, the convergent solutions of the different analytic techniques argue that this conclusion is not solely an artifact of the questions employed.

This finding may help to explain why sexual harassment has not been recognized as a problem until recently. Observers do not seem to pay much attention to the problematic components of these incidents. These results may also be a reflection of people's unwillingness to admit that sexual harassment exists. This denial leads observers evaluating even a breif incident to focus on the positive aspects of an encounter and on the relationship between the participants, rather than on the sexually harassing qualities. Evidence in the cognitive psychology literature indicates that such a selective processing of perceived stimuli is a normal part of the information processing mechanism (Erdelyi, 1974). This sort of selective perception may also operate in cases of child abuse and spouse abuse in which observers do not notice that something wrong is happening because they are not focusing on these aspects of their observations.

Our conclusions are relevant not only to the field of psychology but also to the disposition of sexual harassment lawsuits. If jurors perceive these incidents in any way similar to college students, their inclination will be to focus on the nature of the relationship between the parties rather than on the possibility of sexual harassment. The plaintiff's attorney must then make a special effort to overcome this obstacle and redirect the jurors' thinking toward the aspects of the incident which may make it an instance of sexual harassment.

An important extension of this research would be to examine the relative importance of these factors among actual victims of sexual harassment. Konrad and Gutek (1984) have found that one's personal experiences predict one's definition of sexual harassment. Although many female college students have had actual experiences with sexual harassment, the majority of college students have not. It is therefore possible that sexual harassment victims are more likely to find the concepts taken by Factor 3 to be more important to their experience than do outside observers.

Finally, this study was exploratory in nature and is not intended as a definitive statement on this topic. Its purpose is to suggest some new hypotheses that should be considered and tested in future work. This study focused on the perceptions of undergraduate college students toward hypothetical situations. Future research should consider how people's actual experiences with sexual harassment relate to how they cognitively organize and categorize this subject. Researchers who do large-scale surveys of sexual harassment would do well to assess all psychological aspects and factors of potentially sexually harassing behaviors, rather than to just focus

on sexual harassment itself, since people (at least college students) consider these incidents in a fairly complex manner wherein the sexual harassment dimension is not central to their perceptions.

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