

**An Ecological Study of Glee in Small
Groups of Preschool Children**

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Reprinted for private circulation from

CHILD DEVELOPMENT

Vol. 46, No. 1, March, 1975

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SHERMAN, LAWRENCE W. *An Ecological Study of Glee in Small Groups of Preschool Children*. CHILD DEVELOPMENT, 1975, 46, 53-61. A phenomenon called group glee was studied in videotapes of 596 formal lessons in a preschool. This was characterized by joyful screaming, laughing, and intense physical acts which occurred in simultaneous bursts or which spread in a contagious fashion from one child to another. A variety of precipitating factors were identified, the most prevalent being teacher requests for volunteers, unstructured lags in lessons, gross physical-motor actions, and cognitive incongruities. Distinctions between group glee and laughter were pointed out. While most events of glee did not disrupt the ongoing lesson, those which did tended to produce a protective reaction on the part of teachers. Group glee tended to occur most often in large groups (7-9 children) and in groups containing both sexes. The latter finding was related to Darwin's theory of differentiating vocal signals in animals and man.

In an exploration of videotapes of directed lessons, an intense, positive, affective state in small groups of nursery school children was noted as occurring quite frequently. For lack of a more traditional label it was called "group glee." No previous studies in the literature were concerned with the same phenomenon. The most closely related literature is that on laughter (Brackett 1933; Ding & Jersild 1932; Enders 1927; Gregg 1927; Kenderdine 1931; Rothbart 1973). Although there has been much research concerned with negative attributes of children's behavior in groups, very little has been done with some of the more positive affective states. Why not examine what contributes to a school group's well-being as overtly expressed through signs of happiness or joy?

This study, then, concerned itself with the description and analysis of group glee. Information was collected concerning the occurrence of incidents of group glee, their location in directed lessons, the frequency and duration of the incidents, the manner in which the glee spreads through the groups, the way

teachers respond to a gleeful group, and whether incidents of glee disrupt ongoing lesson-related activities. Several categories of initiating causes of group glee were also noted.

Method

Behavior Setting and Population Sample

Group glee was studied in 596 lessons taught by 36 student teachers over a period of 2 years. The children attended nursery school for approximately 3 hours either in the morning or the afternoon session 5 days a week. Both morning and afternoon groups contained 20 children with varied chronological ages (29-65 months), were integrated racially (one-half blacks), socioeconomically (yearly family incomes from below \$3,000 to \$75,000 a year), and sexually (one-half females).

Each day, three separate groups of children from each session were taken from the free play area to participate in the directed lessons which were held in a smaller observation room (2.2 × 2.7 m). Each lesson was scheduled for 20 minutes. A stationary video

This research was submitted in partial fulfillment of the requirements for the Ph.D. degree at Wayne State University, Detroit, Michigan. The author wishes to thank Jacob S. Kounin for his helpful guidance and suggestions during all phases of the work. This research was supported in part by a National Institute of Mental Health grant, MH-HD 15472, "Determinants of Children's Behavior in Preschool," to Jacob S. Kounin at Wayne State University. Author's address: Department of Educational Psychology, Miami University, Oxford, Ohio 45056.

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camera with a wide-angle lens was placed in one corner of the ceiling so that it could videotape most of the floor space. For the directed lessons, the children were divided into three chronological age groups but were still heterogeneous with respect to sex and race.

There was a general pattern of activity maintained by all the teachers in the directed lessons. When the children were brought into the room they were asked to lie down on the rug and rest. The teachers turned the lights off, and then everyone was expected to rest quietly for approximately 3–4 minutes. When the rest period was over, the teachers turned the lights on and began the formal lesson. Lessons contained a variety of activities such as story readings; simple construction; teacher demonstrations; cognitive grouping and discrimination tasks; singing, dancing, and other physical-motor exercises; role playing; and general discussions. When the focal activity was accomplished, the children were directed to leave the room and return to the larger free play area.

Coding Procedure

Group glee was studied by coding all incidents that occurred in the directed lessons. Codes were designed to obtain data which were ecologically descriptive of the phenomenon. Interrater reliability was established between two independent raters separately viewing the same 10 videotaped lessons. The percentage of intercoder agreements, which were calculated by dividing the number of agreements by the number of agreements plus the number of disagreements, ranged from 83 for a 10-category code (precipitator causes) to 100 for a three-category code (disruptive/non-disruptive glee) with a mean of 92. (See Sherman [1971] for reliability information for each category.)

The Codes

A general description of group glee was first established as a very intense, joyfully affective state maintained throughout a majority of the group (one-half or more). To isolate a critical incident of group glee, two criteria, noted in the codes as behavioral manifestation and ratio, had to be present.

Behavioral manifestation.—Three categories of overt behaviors through which group glee manifested itself were laughter (Laf), screaming (Scr), and intense physical acts (Phys). Laughter was limited to instances of

vigorous and joyful laughter. Screaming was limited to ebullient vocalizations which were emitted either in an organized, chantlike fashion or in random disarray. Intense physical actions were described as joyful physical behaviors such as hand clapping, jumping up and down, or other intense physical expressions. The three behaviors could have appeared simultaneously, in various combinations, or by themselves. In all, seven combinations were theoretically possible. However, intense physical actions without laughter or screaming were found to be quite difficult to perceive as joyful and so were excluded from the coding. This left six possible combinations of behavioral manifestations: (1) Laf, (2) Scr, (3) Laf + Scr, (4) Laf + Phys, (5) Scr + Phys, and (6) Laf + Scr + Phys.

Ratio.—If one of the behavioral manifestations or combinations thereof was recognized, a ratio of the number of children involved in the incident to the number of children present at its occurrence was calculated. If this ratio was 50% or more, an incident of group glee was noted as being present.

Location.—Events were coded into three time locations: (1) *before*, (2) *during*, and (3) *after*. “Before” was coded when the children were coming into the room, resting while the lights were out, after the lights came on, and during the prelesson preparation and introductory period. “During” was coded while the official activity was in progress—that is, after props, materials, etc., were passed out to all children and brief introductions were made by the teacher. “After” was coded when glee was definitely not a continuation of the preceding activity, and the activity had ceased. The children were usually filing out of the lesson room in the after location.

Disruption.—This portion of the code was designed to specify the resulting effect glee had upon the ongoing focal activity. It was valid only in the during location as designated above. If the gleeful incident was located either before or after the activity format, the question of its being disruptive to the focal activity format became moot. A dichotomy of *non-disruptive* and *disruptive* events was used to code this dimension. Nondisruptive was reserved for those incidents of group glee in which there was no interruption of the ongoing activity and the children were merely gleeful while still doing whatever was required of them. When gleeful behavior interrupted an

activity, bringing it to a halt, it was coded as disruptive.

Contagion.—This code was concerned with how the gleeful behavior spread through the group. A dichotomy of *contagious* and *simultaneous* events was used to describe this dimension. The contagious spread of glee was defined as the spread of gleeful behavior from one person to another or throughout the entire group in a somewhat linear fashion, as in a chain reaction. The opposite of contagious was a simultaneous burst of glee, in which children seemed to get the signal or input all at the same time so that the effect of the glee was like an explosion, as in an audience's reaction to the punch line of a joke.

Duration.—This code measured the length, in seconds, of each gleeful incident. When an incident of glee was recognized, it was timed from the first overt signs until it ceased.

Teacher response.—This portion of the code differentiated the teachers' reactions to groups of children being gleeful. Four categories of response were designated: 1) *suppress*, 2) *channel*, 3) *support*, and 4) *ignore*. If the teacher used any intervention technique which was obviously directed at terminating the gleeful incident, it was coded as suppress. Examples of this were verbal reprimanding of children, or physically handling children to calm them down. At times, the teacher appeared to be using a somewhat more subtle technique of terminating glee in which she tried to bring the group back, or channel them, into the activity rather than focusing directly on the termination of glee itself. She did not tell the group to cease being gleeful, but rather asked them to resume an activity or begin a new one. Sometimes the reaction to an incident of glee was to join in the fun. If the teacher acted in a similar manner to the children—laughed along with them or encouraged the children's gleeful behavior by saying, "My! That was a funny story, wasn't it?"—this was coded as support. Many incidents of group glee went unrecognized by the teacher. She made no overt signs of acknowledging what was going on as in the other three categories. The teacher simply let gleeful incidents run their course. When this happened, the reaction was coded as ignore. For later analysis, both suppress and channel responses were collapsed into one category called *protect*. This would be interpreted as intentional acts on the part of the teacher to protect the

behavior setting. Also, support and ignore responses were collapsed into one category called *permit*. The interpretation here would be that the teacher's behavior was one of permitting the gleeful behavior of the children to go on. Thus, for most of the analyses of this code the protect-permit dichotomy was utilized.

Precipitating causes.—This code was generated both from past theory concerned with causes of laughter and also from my observations of group glee situations. It was designed to account for events which appeared to initiate the group glee incidents. There were 14 categories of precipitating causes which eventually were collapsed into 10 categories. *Volunteering* (1) was coded when glee occurred as a response to teacher requests to the children for some type of aid or when the children were already engaged in some kind of physically cooperative aid. An example would be the teacher asking, "Who wants to go out and get John?" to which the children responded gleefully, shouting "Me, me, me . . ." in a chant-like fashion. By convention, since many incidents of glee were produced by questions of an inquiring nature, rather than of a request for aid, they were also coded as volunteering. An example of this situation would be the teacher asking, "Who has a green square?" to which the group chanted back, "I do, me, I do. . . ." The children appeared somewhat competitive in their gleeful responses to such questions posed by the teacher. *Unstructuredness* (2) was coded when the gleeful behavior appeared to occur in a vacuum with no apparent initial precipitating cause. It happened in a rather random and unpredictable fashion unrelated to existing standing behavior patterns. There was no planned activity going on, or the activity which should have been going on never got off the ground because it may have been either too difficult for or incomprehensible to the children. Signals as to what to do were not getting through to the children or were simply not present in the first place. This situation was likely to happen at the beginning of a session, in the before location. For example, children were left waiting for a long period at the beginning of the session, and they began running, chasing, laughing, screaming, and wrestling gleefully. Past studies indicated that intense *physical-motor* (3) activities are quite frequently associated with laughter. This also appeared to be the case with group glee. When the focal activity called for a standing behavior pattern which involved intense gross

body movement, gleeful behavior frequently occurred. An example of this was a dancing lesson in which the children were being given directions to jump, turn around, run around, etc. *Cognitive* (4) was coded as the collapsed form of two previous categories noted as "incongruities" and "funny words." Past literature suggests that this category is a prime element in humor and thus its overt behavioral result, laughing. This happened in an activity where a radically different element was introduced, such as blowing paint with a straw or painting with a string. Another example was the children's gleeful response to each other's misfitting smocks which were used in a painting session. Nonsensical words, as in a song which had a refrain of "ya, ya, pu, pu, tat, tat," appeared to instigate group glee. Word distortions, as when one child distorted "teddy bear" to "teddy dog," sometimes provoked glee. *Taboo breaking* (5) was coded when glee appeared to be closely associated with the breaking of some kind of rule or making a transgression against the teacher or other authority. Other examples were taboo words, such as "stinky-pu" and "shit," which also gave rise to glee. *Terminal points* (6) was coded when glee appeared to be in response to situations in which a definite culminating point or ending occurred. A rest period ends with the lights being turned on and the window shade being lifted. Books end with the final resolution of the plot and the closing of the cover. These ending points appeared to signal the group glee to begin, as in applause at the end of a performance. Gleeful responses which were coded as being provoked by *expectations* (7) primarily dealt with reactions to announcements of future activities. *Satiation* (8) was coded when the gleeful behavior appeared to arise out of satiation with a task. One of the key elements in recognizing this situation was the restless and random behaviors immediately preceding the gleeful incident. For example, a teacher read several books in succession and the children began to become restless after the second book. One child burst forth gleefully, which appeared to signal the rest of the children to join in. *Suspense resolution* (9) was coded when glee was a response to the expected resolution of some activity. An example of this situation occurred when the teacher demonstrated the transformation of corn to popcorn. The children spent a period of time waiting to see what would happen to the kernels. When the corn began to pop the

children reacted gleefully. Another example was the gleeful response which occurred after waiting to see a frog jump. *Derisive* (10) was coded as the collapsed form of two previous codes noted as "teacher predicament" and "derision." Derisive was made up of gleeful responses to situations involving either another child's or a teacher's or a story character's misfortune. An example would be the malfunction of a prop (a record player), precipitating a gleeful reaction from the children. A child who tripped over a milk carton might provoke a gleeful response from the group.

Results

As this was primarily an exploratory endeavor the bulk of the results are descriptive. Four major areas are given primary consideration. First, a description of the precipitating causes is presented. Second, a description of and the interrelationships among the seven coded dimensions is examined. Third, the teachers' responses to gleeful groups are analyzed. And fourth, the relationships of both the groups' sizes and sex compositions to group glee are presented.

Of the 596 videotaped lessons, 241 (40.4%) contained one or more separate and independent incidents of group glee. A total of 633 incidents were recorded in these lessons. Nearly 44% of the incidents involved total group participation and almost 56% involved less than 100% but not less than the criterion of 50% group involvement.

Of the six categories of behavioral manifestations by which group glee was recognized, the most frequent one was Scr (28%), followed by Scr + Phys (25.1%). The third and fourth most frequent combinations were Laf + Phys (16.4%) and Laf + Scr + Phys (12.6%). Laughter by itself was found in only 11.7% of the incidents. The least frequent combination was Laf + Scr (6.2%). Incidents which involved some form of joyful screaming either by itself or in combination with other manifestations constituted 46.9% of the incidents. Intense physical actions were found in 54.1% of the incidents. For later analyses these six categories were collapsed into a dichotomy of manifestations which either included ("with physical") or did not include ("without physical") intense physical acts.

A univariate frequency distribution of the

10 categories coded as precipitating the gleeful incidents is shown in table 1. Four of these categories were included, as the literature had indicated them as frequently being associated with the related phenomenon, laughter. These four categories were intense physical-motor, cognitive, taboo breaking, and derisive.

Six precipitating causes were not identified by other studies of laughter but were important explanations of group glee. The most frequent cause was volunteering. Unstructuredness was the second most frequent cause. Terminal points, expectations, satiation, and suspense resolution are four other precipitating causes not previously noted in the literature concerned with observational studies of laughter.

The seven main components of the code are presented in table 2. All of the codes are presented in their dichotomous forms, either having been collapsed or having been originated in this fashion. One indication of the positiveness of the group glee phenomenon was noted in the distribution of disruption. Almost 70% of the incidents were coded as being nondisruptive. A highly social interactive aspect of group glee may be indicated by nearly 70% of the incidents being coded as contagiously spreading throughout the groups. Slightly less than half the incidents of glee involved all the children present at the time of their occurrence. The duration of incidents of glee was found to be relatively short. Inci-

TABLE 1
FREQUENCY OF PRECIPITATING CAUSES OF
GLEEFUL INCIDENTS

| PRECIPITATING CAUSES | INCIDENTS | |
|--------------------------|-----------|-------|
| | Frequency | % |
| 1. Volunteering | 151 | 23.9 |
| 2. Unstructured | 87 | 13.7 |
| 3. Physical-motor | 81 | 12.8 |
| 4. Cognitive | 79 | 12.5 |
| 5. Taboo breaking | 66 | 10.4 |
| 6. Terminal points | 57 | 9.0 |
| 7. Expectations | 40 | 6.3 |
| 8. Satiation | 29 | 4.6 |
| 9. Suspense | 28 | 4.4 |
| 10. Derisive | 15 | 2.4 |
| Totals | 633 | 100.0 |

dents ranged from 2 to 225 seconds, with a mean time of 14.47 seconds per incident. For later comparisons the incidents were split at their median, 9 seconds, into a dichotomy which consisted of incidents less than or equal to 9 seconds and those greater than 9 seconds. The teachers' responses were nearly evenly split between the categories of permit and protect. Nearly 33% of the teachers' responses were of the suppress type, while only 16% of the events were responded to by channeling. Eleven percent of the teachers' responses were of the support type. The most frequent teacher response (40%) to group glee was to ignore the behavior.

Several comparisons were made in at-

TABLE 2
FREQUENCY DISTRIBUTIONS OF SEVEN CODED PROPERTIES OF GLEEFUL INCIDENTS

| Codes | Categories | |
|----------------------------------|---|---------------------------------|
| 1. Behavioral manifestation ... | Without physical: 290 ^a (45.9) ^b | With physical: 343 (54.1) |
| 2. Ratio | 100% involved: 281 (44.4) | 50%-99% involved: 352 (55.6) |
| 3. Location | Before: 172 (27.2) | During: 452 (71.4) |
| | | After: 9 (1.4) |
| 4. Disruption ^c | Nondisruptive: 315 (69.7) | Disruptive: 137 (30.3) |
| 5. Contagion | Contagious: 447 (70.6) | Simultaneous: 186 (29.4) |
| 6. Duration | ≤9 sec: 334 (52.8) | ≥10 sec: 299 (47.2) |
| 7. Teacher response | Protect: 312 (49.3) | Permit: 321 (50.7) |

^a Actual frequency of incidents.

^b Percentage of total number of incidents coded.

^c *N* = 452, as this property was coded only during the lessons proper.

TABLE 3
PHI INDICES FOR THE GROUP GLEE VARIABLES COMPARED WITH EACH OTHER

| Variable | Contagion | Duration | Behavioral Manifestation | Ratio | Teacher Response | N |
|--------------------------------|-----------|----------|-----------------------------|-------|---------------------|-----|
| Disruption | .26 | .24 | .24 | .17 | .51 | 452 |
| Contagion | ... | .36 | .36 | N.S. | .22 | 633 |
| Duration | ... | ... | .33 | N.S. | .19 | 633 |
| Behavioral manifestation | ... | ... | ... | N.S. | .21 | 633 |
| Ratio | ... | ... | ... | ... | .15 | 633 |

NOTE.—All ϕ coefficients are significant at $p < .001$.

tempting to interrelate six of the seven codes. For the sake of brevity all the 2×2 contingency tables which were calculated are omitted in favor of simply presenting their ϕ coefficients. As can be seen in table 3, most of the coded dimensions were significantly related to each other ($p < .001$). The most significant relationship in this table was between disruption and teacher responses, $\chi^2(1) = 123.84$, $p < .001$. Teachers responded to disruptive incidents in a protective manner more frequently than expected. Disruptive incidents tended to be contagious, lasted longer, contained intense physical acts, involved fewer children than the entire group, and were most often responded to by teachers in a suppressive fashion obviously intended to protect the teacher-ordained activity. The contagious incidents were also longer, tended to contain intense physical acts, and were also typically responded to by teachers in a suppressive fashion.

Further analysis using two multivariate statistical techniques, automatic interaction detector (AID) (Sonquist & Morgan 1964) and multiple classification analysis (MCA) (Andrews, Morgan, & Sonquist 1969), were employed in an effort to identify more specific relationships between the teachers' suppress responses and the other factors of the glee code. Both of these techniques can handle predictors as weak as nominal scales and are capable of handling dichotomous data. All categories of the glee code were transformed into simple presence/absence dichotomies, as is done in dummy variable multiple regression. Using the AID technique first, the presence or absence of the teachers' suppress responses were used as a criterion or dependent measure to which all of the other dichotomous variables were applied as predictors. The pattern of variables maximizing prediction of suppress responses is displayed in figure 1. The five presence/ab-

sence dichotomies most influential in determining a suppress response are disruption, duration, the precipitating causes of unstructured lags and satiation, and the behavioral manifestation combination of laughter + screaming + intense physical movement. Using these five factors in the MCA analyses yields a multiple R (adjusted) of .56. Teachers are most likely to suppress an act of glee when it is disruptive, lasts longer than 10 seconds, and is precipitated by satiation on a task. They are least likely to suppress gleeful events which are not disruptive, shorter than 10 seconds, and behaviorally manifested by laughter + screaming + intense physical movement. Patterns related to a lesser frequency of suppress responses may be noted in figure 1.

The influence of group size and sex composition of groups was significantly related to the prevalence of glee in the lessons. The comparison between group size and the presence or absence of group glee in the 596 lessons was significant, $\chi^2(2) = 17.25$, $p < .001$. As can be seen from inspection of table 4, group glee is present more frequently than expected when groups are as large as from seven to nine children. Group glee is absent

TABLE 4
COMPARISON OF GROUP SIZE BY PRESENCE OR
ABSENCE OF GROUP GLEE IN LESSONS

| GROUP SIZE | LESSONS | |
|------------|------------------------------|---------------|
| | Absent | Present |
| 3-4 | 147 (134.60) ^a | 44 (56.40) |
| 5-6 | 207 (201.54) | 79 (84.46) |
| 7-9 | 66 (83.86) | 53 (35.14) |

NOTE.— $\chi^2(2) = 17.25$, $p < .001$.

^a All figures in parentheses are expected frequencies.

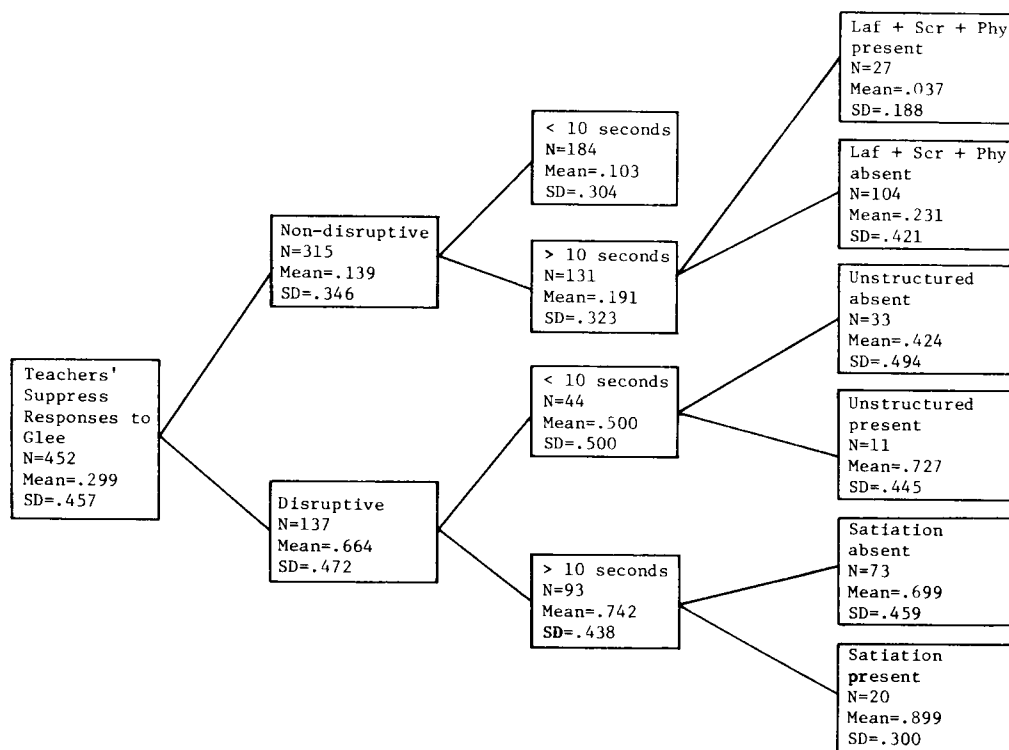


FIG. 1.—AID results of predictor groupings of teachers' suppress responses to glee

more frequently than expected when groups are as small as from three to four children.

A similar analysis was used to examine the relationship between sex composition of the groups and the presence or absence of glee in the 596 lessons. Five initial categories of group sex composition were explored: (1) all girls, (2) girls > boys, (3) girls = boys, (4) girls < boys, and (5) all boys. A statistically significant difference, $\chi^2(4) = 10.65$, $p < .05$, was found to exist (see table 5). No significant difference in the lack of glee was found between categories 1 and 5, all boy or girl groups; therefore they were collapsed into a category noted as "unisex" groups. Categories 2, 3, and 4 were likewise collapsed into another category noted as "mixed" groups. Further analysis using this collapsed version shows that mixed groups have glee present more frequently than expected, $\chi^2(1) = 7.16$, $p < .01$.

The relative age of the groups was also analyzed. However, since no significant find-

ings were encountered in these analyses, the data are not presented here.

Discussion

An exploration of 596 formal lessons in a preschool setting revealed a phenomenon called group glee that has not been studied previously as an aspect of group behavior in general or of preschool children in particular.

The gleeful behavior was precipitated by many different situations, the most prevalent being gleeful responses to teachers' requests for volunteers or for information, a precipitating cause not noted in studies of laughter. Thus one might question whether group glee is different from or the same as laughter. In examining this question the primary reference believed to be most relevant is an observational study by Ding and Jersild (1932) of laughter and smiling of preschool children in which they identified several causes of laughter. On the basis of the 10 precipitating causes of glee which were identified in the present study,

TABLE 5

SEX COMPOSITION OF GROUPS COMPARED TO THE PRESENCE OR ABSENCE OF GLEE IN 596 LESSONS

| SEX COMPOSITION CATEGORIES | LESSONS | |
|----------------------------|----------------------------|---------------|
| | Absent | Present |
| 1. All girls | 13 (11.35) ^a | 3 (4.65) |
| 2. Girls > boys | 174 (169.83) | 67 (71.17) |
| 3. Girls = boys | 75 (85.26) | 46 (35.74) |
| 4. Girls < boys | 128 (129.66) | 56 (54.34) |
| 5. All boys | 30 (23.96) | 4 (10.04) |

NOTE.— $\chi^2(4) = 10.65$, $p < .05$.^a All figures in parentheses are expected frequencies.

distinct differences between group glee and laughter appear to be in evidence. Four precipitating causes were found to be common to both glee and laughter. Focal lesson activities which made use of standing behavior patterns involving intense physical-motor or gross body movements appeared to initiate glee as well as laughter. Physical-motor was the third most frequent precipitator of glee in this study, whereas it was the highest ranking for Ding and Jersild's study. Both cognitive initiators and taboo breaking were more prevalent in this study than in Ding and Jersild's. Derisive is the least frequent precipitator in this study as well as being very infrequent in Ding and Jersild's. Four precipitating causes not found in Ding and Jersild's study (terminal points, expectations, satiation, and suspense resolution) may be observational evidence for supporting some theories of laughter which are discussed in the literature—for example, laughter is the result of the release of "tension" (Rothbart 1973), laughter occurs at the violation of expectation (Sroufe & Wunsch 1972).

Ding and Jersild's study, besides being done in 1932, took place in an unstructured setting in which there were only two adults present—a very different setting from the one in which group glee was studied. Differences between their study and this one may be due to this behavior-setting factor. Nevertheless, six of this study's precipitating causes are not even noted in their study, and their most frequent cause, physical-motor, is only third in rank order in this study. It is believed that this more global group phenomenon is not the

same as laughter even though laughter is often a component of group glee.

Primarily, group glee was a vocal behavior which consisted of joyful laughter or screaming often accompanied by intense physical acts. The behavior usually spread throughout groups in a contagious fashion. However, at times the behavior happened all at once in a burst. Incidents of glee were relatively short in duration, with half lasting from 4 to 9 seconds.

Although group glee at times did present a threat to directed lessons, it was basically a joyful and perhaps desirable type of group behavior. Seven out of every 10 incidents which occurred during activity formats did not disrupt the activities and may well have been a definite asset in maintaining task involvement and zest for lessons.

One of the findings of the study indicates that there is an association between teachers' behaviors and group glee. Teachers acted to protect their behavior settings. If a gleeful event threatened the activity in a disruptive way, the teachers typically intervened in an attempt to bring the gleeful incident to a halt. Although disruptive incidents tended to be contagious, last relatively longer, be accompanied by intense physical actions, and usually involve less than the entire group of children, these factors by themselves were not found to be related to teachers' responsiveness when disruptiveness was not present. Teachers appeared to be reacting to gleeful events in a manner which may be described as a "protective reaction": reacting in a suppressive fashion only when such events were disruptive to the lesson.

Another finding concerned the disruptiveness of incidents and how contagious they were. While the disruptive incidents tended to spread through the group in a contagious fashion, the nondisruptive incidents tended to happen all at once—in a simultaneous burst. Since disruption and contagion were so closely related, the teacher may appear to be reacting in a protective fashion to contagious behaviors. Redl and Wattenberg (1951), in their discussion of classroom management techniques, have made an issue of contagion as a group pathology. The indication in the present study that contagious group glee may at times disrupt the behavior setting may substantiate their concern.

Sex composition and group size add to an understanding of group glee. If one wished to program a directed lesson for a gleeful experience, the selection of a group of an appropriate size (seven to nine children) and consisting of a mixture of boys and girls would enhance this objective. Likewise, if group glee is not desired, a small group of only one sex should be chosen.

It is not the intent to overemphasize the sex composition finding, which, though statistically significant, has a low ϕ coefficient. However, one might speculate as to why such a relationship exists. Darwin (1955) and many contemporary ethologists espouse a theory of differentiating vocal signal systems in animals and men. Certain auditory signals indicate territoriality while others are associated with courtship and mating. As glee is primarily a vocal behavior, and because sex composition of groups significantly differentiates the relative frequency of this behavior, glee may be a specific type of sexual signal system which either could be intended as a sexual rivalry communication or may possibly be a precursor of attraction or flirtation behaviors. Eibl-Eibesfeldt (1970) has indicated cross-cultural similarities in expression of adult flirtation behaviors. Suomi and Harlow (1971) have also indicated a functional relationship between interactive play in young monkeys and their adult sexual behaviors. The fact that unisex groups are rarely gleeful may be due to the absence of the opposite sex, to whom the gleeful vocalizations are directed or whose mere presence arouses "excitement" even in preschool children. In any case, as with group size, sex composition is an important ecological factor in understanding the production of gleeful behavior.

Explorations of the effects of teachers' reactions and of the lesson formats are being planned (Sherman 1973). Preliminary results, for example, indicate that disruptive glee occurs more often than expected in lessons with lags and lacunae, whereas nondisruptive glee occurs more often than expected in lessons with a high degree of input continuity and steadiness. It is hoped that further study of these and other relationships would help teachers prevent disruptive glee in lessons and

foster joyful nondisruptive glee in groups of preschool children.

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Marc Abrahams

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The Annals of Improbable Research



2002

A SCHOLARLY STUDY OF GLEE

“A phenomenon called group glee was studied in videotapes of 596 formal lessons in a preschool. This was characterized by joyful screaming, laughing, and intense physical acts which occurred in simultaneous bursts or which spread in a contagious fashion from one child to another. A variety of precipitating factors were identified ... Group glee tended to occur most often in large groups (7–9 children) and in groups containing both sexes. The latter finding was related to Darwin’s theory of differentiating vocal signals in animals and man.”

—from Lawrence W. Sherman’s published report

THE OFFICIAL CITATION

THE IG NOBEL PSYCHOLOGY PRIZE WAS AWARDED TO

Lawrence W. Sherman of Miami University, Ohio, for his influential research report
“An Ecological Study of Glee in Small Groups of Preschool Children.”

His study was published in *Child Development*, vol. 46, no. 1, March, 1975, pp. 53–61.

Lawrence W. Sherman was the first scientist to rigorously and systematically study, document, and analyze the occurrence of glee.

When Lawrence Sherman studied glee, why did he choose to study it in small groups of preschool children? Because that is where one finds the most gleeful glee.

Why did he choose to study glee? Because other psychologists hadn’t, and because he needed to choose something as the subject of his PhD thesis, and because he himself is a gleeful person.

Sherman spent two years videotaping groups of three- and four-year-old children at their nursery school. Then he studied the tapes, classifying, describing, and probing the glee recorded therein.

He established a formal, scholarly definition of “group glee.” Group glee is “a very intense, joyfully affective state maintained throughout a majority of the group (one half or more).”

Laypersons may be surprised to learn that there is a technical aspect of glee: it is a parameter called BEHAVIORAL MANIFESTATION.

Technically speaking, BEHAVIORAL MANIFESTATION is a complex consisting of three categories of overt behaviors through which group glee manifests itself, these categories being LAUGHTER, SCREAMING, and INTENSE PHYSICAL ACTS. These three behaviors can manifest either by themselves, or simultaneously in various combinations. The six fundamental combinations are:

- (1) LAUGHTER
- (2) SCREAMING
- (3) LAUGHTER + SCREAMING
- (4) LAUGHTER + INTENSE PHYSICAL ACTS
- (5) SCREAMING + INTENSE PHYSICAL ACTS
- (6) LAUGHTER + SCREAMING + INTENSE PHYSICAL ACTS

Sherman identified several key questions that any serious researcher must ask about an incidence of glee. Among them:

1. Was the glee was disruptive?
2. Was the glee contagious? (That is, did it spread “from one person to another or throughout the entire group in a somewhat linear fashion, as in a chain reaction”?)
3. Was the glee – rather than being contagious – simultaneous? (That is, did “the children seem to get the signal or input all at the same time so that the effect of the glee was like an explosion”?)
4. What was the duration of the glee? (Sherman timed each incident of glee “from the first overt signs until it ceased.”)

Sherman identified 14 different things that can trigger glee. These include:

- A question from the teacher, such as “Who wants to go out and get John?”
- Incongruities or “funny words,” such as “ya, ya, poo, poo, tat, tat.”
- The breaking of a taboo, perhaps through the mention of taboo words. Sherman gives as examples “stinky-poo” and “shit.”
- Someone else’s misfortune – “A child who tripped over a milk carton,” for example.
- Nothing at all. A considerable amount of glee comes from nothing at all.

Finally, Sherman performed a statistical analysis of glee. This turned up some notable facts.

Glee occurs approximately four out of every ten times children get together. Glee is generally short-lived – typically just four to nine seconds.

The most common expression of glee is joyful screaming without laughter; the least common is joyful screaming *with* laughter. Simple questions such as “Who wants to go out and get John?” are the most common triggers for glee.

Other people's misfortune or ineptness, we now know scientifically, is only rarely a cause for young children's glee. And we also know, thanks to Lawrence Sherman, that there is more glee when boys and girls are together than when they are apart.

For studying glee in an era of Valium, Lawrence W. Sherman won the 2001 Ig Nobel Prize in the field of Psychology.

Professor Sherman attended the 2001 Ig Nobel Prize Ceremony, where he was mobbed by a small group of gleeful children. In accepting the Prize, he said:

"I'm really impressed that this is happening at the end of my career. And I'm really pleased it didn't happen at the beginning."

Professor Sherman could not stay at Harvard for the subsequent several days of Ig Nobel-related events, because he had to return home for a meeting of the Ohio Gourd Association, of which he is vice president. As he was leaving to go to the airport, an admirer asked him "What is it you like about gourds?" Sherman's gleeful reply: "Everything!"