

THE NEWELL PRIZE: 1983

The 1983 Newell Prize was awarded to Dean M. Lapp, then a student of Simon Bronner's, for his paper, "A Systematic Investigation of Jump-Rope Rhymes: Computer Applications for Field Collected Cultural Material."

Children's folklore has attracted attention from educational psychologists because of the ease in which the lore is memorized, and because of the connections between folklore and psychological development. A promising movement within educational psychology addresses the role of microcomputers in the learning process of children. Folklorists have generally avoided quantification although they have put forward psychological interpretation.¹ The connections, as it turns out, between folklore and educational psychology are close and deserve more consideration.²

Looking at the content of jump-rope rhymes is a step toward explaining the cultural development of young girls. Brian Sutton-Smith, a researcher bridging educational psychology and folklore, agrees, and states that, "it is 'fair' that one of the most persistent of children's play activities (jumping rope) be introduced into this intellectual stadium." (Abrahams 1969)

A content analysis is any research technique for making inferences by systematically and objectively identifying specified characteristics within texts (Stone et al. 1966: 5). Content analysis by computer is not a new approach. Four colleagues at Harvard University used computer-aided content analysis over twenty years ago. Their efforts produced *The General Inquirer*, a set of computer programs designed to (a) identify systematically, within text, instances of words and phrases that belong to categories specified by the investigator; (b) count occurrences and specified co-occurrences of these categories; (c) print and graph tabulations; (d) perform statistical tests; and (e) sort and regroup sentences according to whether they contain instances of a particular category or combination of categories (Stone et al. 1966: 68).

The developers of *The General Inquirer* note that their concern is with "basic issues of content analysis rather than technical details of current computer implementation." They insist that the computer only aids and does not replace human endeavor (Stone et al. 1966: xi). Many studies applied this new methodology, and their results bear witness to the progress made in the field of content analysis.³

The recent computer boom has accelerated the use of content analysis as a method. The only drawback appears to be the need to closely verify texts when entering material. This process is time consuming, but necessary, as the reliability of content analysis depends on properly spelled words.

Many modes of speech, both written and oral, have attracted the applications of content analysis. Many of these studies are presented in Gottschalk and Glesser's *The Measurement Of Psychological States Through The Content Analysis Of Verbal Behavior*, and in a follow-up book by Gottschalk, *The Content Analysis Of Verbal Behavior — Further Studies*. Content analysis was used to explore shame and guilt in neuroses, psychotherapy research,

dream research, and alcoholism. Other applications have evolved in the fields of political science, anthropology, and social psychology.⁴

Providing a precedent for my study is an article in Gottschalk's *Further Studies* on children's speech as a source of data for psychological investigation. Gottschalk found, for instance, that a negative correlation existed between the level of anxiety demonstrated through speech, and the level of hope expressed. Along with this finding, other correlations supported the evidence for a relationship between children's psychological states and their speech.⁵

Notwithstanding Gottschalk's study, the analysis of children's verbal behavior is still a relatively unexplored area, as is the analysis of folklore content. Some work has been done however, and a good example is the study by Kalin, Davis, and McClelland, who investigated the relationship between the use of alcohol and the expression of aggression themes in folktales. The purpose was to find psychological correlates of heavy drinking in primitive societies by relating the thematic content of folktales as a medium for verbal behavior investigation.⁶

One assumption must be made in this study — that folklore reflects the attitudes of people in a society. A more concrete application of this assumption would be — that jump-rope rhymes reflect the attitudes of young girls. Attitudes have been defined as containing three components: a cognitive, an emotional, and a behavioral.⁷ The verbal behavior of young girls is an example of the behavioral component and should reflect, in part, their attitudes. Previous research has indicated that folktales are indeed psychologically revealing products of a society. For example, McClelland has reported a positive relationship between achievement themes in folktales and the percentage of males engaged in full-time entrepreneurial activity.⁸

My efforts in investigating the content of jump-rope rhymes are intended not to delve into the deep psychological constitutions of young girls, but more to provide some hypotheses that would apply to such endeavor. I hope first to answer a methodological question:

Does the use of a microcomputer ease the methodological task of investigating and interpreting field collected cultural material?

The second question explored will be:

Can useful hypotheses about the psychological states of young girls be drafted by exploring the content of jump-rope rhymes?

Previous studies of rope skipping have concentrated more on the game than on the verse. Bruce Buckley's classification system was based on style of jumping (Buckley 1966: 99-111). Similarly, Ruth Hawthorne suggested variables of jumping rope, describing both the game and the verse (Hawthorne: 1966: 113-126). Roger Pinon outlined a classification system on Belgian jump-rope rhymes

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that did include thematic categories of content, but which were never applied to psychological questions (Abrahams 1969: xxiii).

One of the major categories of jump-rope rhyme content suggested by Mary and Herbert Knapp is domestic life (1976: 112). In keeping within *The General Inquirer* approach to content analysis, the focus of this study will be on frequency counts of words relating to domestic life, and more specifically, personal relationships in domestic life.⁹

The collected material used for the content analysis was Roger Abrahams' *Jump-Rope Rhymes: A Dictionary*. It was chosen because it is a comprehensive, available source of jump-rope rhymes. Radio Shack's TRS-80 Model III microcomputer and word processing program SCRIPSIT were used to perform the analysis. The procedure used in this study could have been performed on practically any microcomputer and with most word processing software packages.

Most word processing programs available today include a "global search" routine which allows the operator to isolate key words, or key words in context. SCRIPSIT has such a routine, and I chose the key word in context approach as it enabled me to differentiate meaning. For example, some British girls used the word LOVE as a slang pronoun:

Goodbye (May), while you're away;
Send a letter, love,
Say you're better, love,
Don't forget your dear old (Nell).

Some rhymes were also entered with the generic phrase (girl's name), meaning the jumpers could supply any name they chose:

Down in the valley where the green grass grows,
There sat little (girl's name) without any clothes.
Along came (boy's name)

Because of semantic differences, both of these examples were excluded from the counts of the words GIRL and LOVE.

The majority of the 619 jump-rope rhymes in the collection were collected from young girls, between the ages of 7 and 10, and from mostly American urban areas. Controlling the population variables helped strengthen my conclusions.

The procedure for searching the rhymes was straightforward. I defined the string of characters or word that I desired counting, and the first rhyme that contained the word was displayed on the console screen, with a blinking marker on the first letter of the word. By sequentially pushing three keys, the search continued to the next rhyme, or displayed a message — (word) NOT FOUND. Table 1 represents the words chosen, and their respective frequency counts. The results in Table 1 represent the number of rhymes that contain the word, not the total number of occurrences of the word.

To help appreciate the speed of the computer, the alternative should be considered. That is, could I have performed the same frequency counts in the same amount of time, by manually paging through the dictionary? For the original 21 words used in this study, perhaps I could have accomplished the same search in 16 hours. The advantage is apparent however, if I choose to examine more words. With the rhymes on magnetic tape, the search process can now be performed an unlimited number

of times on any word, or string of characters. The 14 hours required to record the rhymes on tape was a one-time procedure.

Improvements could have been made by considering hardware and software alternatives. The Radio Shack TRS-80 is not the fastest microcomputer. Other word processing programs have also demonstrated more efficiency.¹⁰ It is also conceivable that the rhymes could have been entered as records in a file, and subsequently processed as data. The potential exists, then, for further easing the methodological task of investigating cultural material. Larger mainframe computers could also be considered, but folklorists probably have easier access to microcomputers and should become familiar with their capabilities.

Speed was not the only benefit of the computer evident in this study. The text could be entered in a condensed more efficient form. As a method of investigating written verse, content analysis typically does not take into account punctuation or grammatical structure. The text can ostensibly be reduced to a series of words. The human mind does not have the perceptual ability to ignore these additional symbols, making the counting task more complicated. The computer would also be more efficient at examining phrases, as it is more difficult for a human being to isolate a phrase within the context of a sentence.

An attempt to suggest potential hypotheses from results implies hypothetical question. Kenneth L. Ketner warns that, "one must not think that the way to get a hypothesis is to gather a large body of 'data' in the hope that a usable hypothesis will spring forth from it." He continues, "One will of necessity, already have an implicit hypothesis, for the canon used in selecting certain facts as data is a hypothesis."¹¹

My choice of words to count defines my implicit hypothesis. I suggest that the thought and overt speech of young girls concerning domestic relationships will frequently include words like MOTHER, FATHER, BROTHER, and SISTER. I admit that the frequency of these words alone are insufficient to show causation, but I do submit that comparisons of frequencies between words might provide grounds for further study.

For example, the word MOTHER was found in 53 rhymes. The word FATHER was found in 13. I think it is legitimate to ask the question, "Why does the word MOTHER occur four times as much as the word FATHER?" This question can, in turn be phrased as a hypothesis, suitable for investigation using scientific methods. The hypothesis might be — Pre-adolescent girls are more closely attached to their mothers than their fathers, and this attachment is evident in their behavior.

My findings might also be used for evidence in researching the psychoanalytic concept of the Oedipal complex. At an early stage of development (usually 3 to 6 years) children are thought to identify with the parent of the opposite sex. According to psychoanalytic theory, this identification is accompanied by a fear of the same sex parent, although with less intensity by girls. Why this takes place depends upon the girl's reaction of disappointment when she discovers that a boy possesses a protruding sex organ, the penis, while she has only a cavity. She holds her mother responsible for her castrated condition, and transfers her love to her father because he has the valued organ which she aspires to share with him.

After this stage passes, psychoanalytic theory proposes that the child goes into a prolonged latency period. Impulses are said to be repressed during this period and original

love for the mother surfaces again (for both sexes), because she satisfies their needs. It is about this same time (7-10 years) that girls are learning jump-rope rhymes. Thus, another hypothesis might be proposed as — Psychosexual stages, as defined by psychoanalytic theory, can be delineated by examining children's verbal behavior.¹²

The findings also indicate an apparent emphasis on the nuclear family. The number of rhymes containing the words MOTHER, FATHER, BROTHER, and SISTER totaled 78. In contrast, only 1 rhyme contained the word UNCLE. No rhymes were found to include AUNT, NIECE, NEPHEW, or COUSIN. It might be useful to know if this emphasis is a reflection of the age of the girls. That is, would an investigation of folklore content authored by adolescent girls contain a different ration of words symbolizing nuclear family as opposed to other family relations? This question could also be proposed as a legitimate hypothesis. Also, the above finding provides evidence that folklore reflects culture. That is, the American nuclear family consists of those words found most often. The folklore from another society, where the nuclear family includes grandparents, aunts, uncles, and cousins, might reflect an increase in the use of those words. Another hypothesis can be drawn from this idea.

One final observation of the results was a lack of rhymes containing words found in the marriage theme. Although there does appear to be an emphasis on the theme of boys and boyfriends, there were only a few rhymes containing the words HUSBAND, WIFE, DAUGHTER, SON, BRIDE, and GROOM. Since most girls this age like to play house and dress-up, and role-play as wife and mother, it seems unusual that the marriage theme was not better represented.¹³

Folklorists look deeply into the meaning and function of lore they collect. They have therefore disciplined themselves to use a more humanistic, qualitative approach to interpretation of lore. I believe, however, that the computer can rejuvenate textual analysis while still accounting for contextual variables.

The value of this study lies not in the intrinsic findings, but more in the potential for other studies or applications. For example, the same procedure could be applied to other genres in oral tradition. Counting rhymes, ball bouncing rhymes, riddle and joke telling, and story telling are a few examples. Verbal lore that has been indexed represents excellent material for content analysis.

The connection between folklore and child development could also be more closely examined. For instance, might there be relationships between verbal lore and Kohlberg's eight stages of moral development or Piaget's six stages of intellectual development, in addition to Freud's psychosexual development stages?

The opportunities to evaluate cultural material systematically are rising as computer facilities expand on university campuses. Therefore, the tools are available. Further, folkloristics has produced many indexes with no clear use.¹⁴ Because of the structure of indexes, they are prime candidates for computer-aided content analysis, and I believe the field will benefit from the expanded knowledge obtained in such an analysis.

Finally, I believe the results of this study support the connection between folkloristics and human behavior.¹⁵ As the content of folklore is a genuine expression of human experience, behavioral scientists should pay attention to its potential as a source for investigating and interpreting behavior.

NOTES

- 1 The merging of folkloristics and behavioral studies is covered in Simon J. Bronner, "Learning of the People: Folkloristics in the Study of Behavior and Thought," *New York Folklore* 9, Nos. 3-4 (Winter 1983): 75-88.
- 2 Perhaps the clearest example of the connection between educational psychology and folkloristics is a glimpse at the table of contents of a basic educational psychology textbook. Chapter headings such as, "Parents and Teachers as Mediators of Social and Cultural Influence," "Remembering What is Learned," and "Cultural Demands and Individual Values," illustrate the partnership of these two disciplines. These chapters were taken from, *Educational Psychology: Instruction and Behavioral Change* (New York: Meredith Corporation, 1970).
- 3 Sixteen studies are presented in the second half of *The General Inquirer*. The seven fields represented are small groups, political science, personality, clinical psychology, social psychology, cross-cultural studies, and "other" applications.
- 4 The majority of the studies presented in Gottschalk's works are psychodynamic. The political science, anthropology, and social psychology disciplines are given more attention in *The General Inquirer*. Powerful evidence is demonstrated, however, in Louis A. Gottschalk, and Goldine C. Gleser, *The Measurement of Psychological States Through the Content Analysis of Verbal Behavior* (Berkeley, California: University of California Press, 1969), and Louis A. Gottschalk, *The Content Analysis of Verbal Behavior: Further Studies* (California: Spectrum Publications, Inc., 1979).
- 5 Gottschalk, *Further Studies*, p. 249.
- 6 Rudolph Kalin, William N. Davis, and David C. McClelland, "The Relationship Between Use of Alcohol and Thematic Content of Folktales in Primitive Societies," included in *The General Inquirer: A Computer Approach to Content Analysis* (Cambridge, Massachusetts: The M.I.T. Press, 1966), pp. 569-588.
- 7 Any social psychology text will address this definition in more detail. For example, see Robert A. Baron and Donn Byrne, *Social Psychology: Understanding Human Interaction* (Boston, Massachusetts: Allyn and Bacon, Inc., 1981), pp. 91-92.
- 8 This study is cited in the alcohol study of Kalin, et al. *The General Inquirer*, p. 571. For a complete description of McClelland's work, see, *The Achieving Society* (Princeton, N.J.: Van Nostrand, 1961).
- 9 By *The General Inquirer* approach I mean that category construction is regarded as a crucial aspect of content analysis. The authors say that category construction is the step in which the data are tied to theory, and that it serves as a basis for drawing inferences. See Stone, et al., *The General Inquirer*, p. 9.
- 10 See the critiques in Peter A. McWilliams, *The Word Processing Book* (Los Angeles, California: Prelude Press, 1982), pp. 188-189; 207-212.
- 11 This quote comes from an excellent article on hypothesis testing in folkloristics. Kenneth Laine Ketner, "The Role of Hypotheses in Folkloristics," *Journal of American Folklore* 86 (1973): 114-130.
- 12 There is a large body of research, both applied and theoretical, on psychoanalytic development. Surveying the literature for Oedipal complex, psychosexual stages, or identification will provide some insight. One source of Sigmund Freud's original writings is William S. Sahakian, ed., *Psychology of Personality: Readings in Theory* (Boston, Massachusetts: Houghton Mifflin Company, 1977), pp. 22-23.
- 13 The theme of marriage is discussed briefly as a component in the continuation of society theme in Richard M. Dorson, ed., *Handbook of American Folklore* (Bloomington: Indiana University Press, 1983), p. 318.
- 14 The Frank C. Brown Collection, Compendium of American Folklore, and Hyatt Collections could serve as references for computer analysis.
- 15 Bronner, "Learning of the People . . .," pp. 75-88.

REFERENCES CITED

- Abrahams, Roger D.**
1969 *Jump-Rope Rhymes: A Dictionary*. Austin, Texas: University of Texas Press.
- Buckley, Bruce**
1966 "Jump Rope Rhymes: Suggestions for Classification and Study." *Keystone Folklore Quarterly* 11: 99-111.
- Hawthorne, Ruth**
1966 "Classifying Jump-Rope Games." *Keystone Folklore Quarterly* 11: 113-126.
- Knapp, Mary and Herbert Knapp**
1976 *One Potato, Two Potato: The Folklore of American Children*. New York: W.W. Norton and Company.
- Stone, Philip J. and Dexter C. Dunphy and Marshall S. Smith and Daniel M. Ogilvie**
1966 *The General Inquirer: A Computer Approach to Content Analysis*. Cambridge, Massachusetts: The M.I.T. Press.

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Results of Frequency Counts

Word	Number of Occurrences	Word	Number of Occurrences
Mother	53	Baby	12
Father	13	Teacher	13
Brother	5	School	11
Sister	7	Husband	4
Aunt	0	Wife	9
Uncle	1	Bride	2
Cousin	0	Groom	0
Niece	0	Daughter	6
Nephew	0	Son	0
Girl	19	Love	29
Boy	25		

TABLE 1.

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