

## CARD GAMES

### Function in Light of Developing Preference\*

[See the section at the end of this article for descriptions of the card games that are the expressive activities at the center of this study.]

Card playing in American culture is pervasive for both sexes and for all but the youngest ages. Considering the fact that playing card games is almost entirely traditionally learned expressive behavior, and that this behavior otherwise exhibits all the features of folkloric behavior, it is difficult to understand why this genre of game behavior has been left virtually untouched by folklorists. Perhaps because card playing is something folklorists themselves do, or because it cannot be said to be the special behavior of some conservative or exotic sub-cultural group, it has not appealed to their interest. Perhaps the association of card playing with gambling and the ethical issues that arise there from is another reason not simply folklorists, but scholars in general, have shied away from investigations of this behavior.

One purpose of the present study is to call attention to the value of studying card playing as traditional expressive behavior in the American context. More specifically this work reports the results of an investigation of the card game preferences of upper middle class, suburban children between the ages of three and fifteen. These results are discussed in terms of their implications for the developmental function of games.

The literature on the function of play and game is vast. Nearly everyone who has written on either play or game has set forth some proposal for the function of these behaviors. Avedon and Sutton-Smith have produced an overview, sampling, and bibliography of this literature in their volume, The Study of Games.<sup>(1)</sup> Sutton-Smith has produced the most recent comprehensive evaluation of this literature in his forthcoming work, The Dialectics of Play.<sup>(2)</sup> In the latter volume Sutton-Smith indicates that there have been many more functional propositions and interpretations of play and game than there have been investigations of function. In fact the experimental literature on the function of play and game is surprisingly small. Sutton-Smith reviews this literature for game and play in the above cited works and concludes that it is uncertain, particularly for non-physical skill games, whether play and game involvement have instrumental consequences and if so, exactly what these consequences are.<sup>(3)</sup> From therapists to educators to business training personnel, there is extensive use of play and game and the conviction that play and game involvement promotes practical consequences, but it seems that the basic research does not provide a firm experimental foundation for this conviction.

The present study is not an experimental investigation of card game function. As such it does not address the issue of function head on. Rather the present work discusses the functional implications of regularities discovered in the relations between the developmental schedules for card game preference and for assessment of card game difficulty. Sutton-Smith has challenged the reliability of play preference scales as indicators of game participation and competence.<sup>(4)</sup> While Sutton-Smith's reservations about the relationship between real play behavior and indicated play behavior must be borne in mind, especially for young children, it is hoped that the approach taken in this study to eliciting indications of play behavior has helped to minimize this problem. It is precisely with this concern in mind that different procedures were used for eliciting

information on card game behavior over the age range surveyed. The non-comparative, separate evaluation of each game, as well as the demonstration of the play of each game, were introduced as components of the procedure to circumvent some of the problems encountered in obtaining reliable reports of game behavior from children.

### Data and Procedure

This study began with my recollection of the card games I played at different points in my own upper middle class, suburban upbringing near Toledo, Ohio. This recollection was stirred by my exposure to the identical sequence of games that my daughter, age ten, has moved through so far as a member of the suburban Philadelphia community where my family has been living for the past five years.(5) After checking carefully my daughter's card game experience, after inquiring with her into the card games that she knew children older and younger than herself were playing, and after adding my own knowledge that the overwhelmingly favorite social card game among adults in the community was Bridge, I concluded that the same games seemed to be current and popular at about the same ages in my Philadelphia suburban community as had been the case for upper middle class, suburban Toledo in my own upbringing. The card game sequence that emerged as common to both boys and girls over the age range was: War, Fish, Old Maid, Crazy Eights, Gin Rummy, I Doubt It, Hearts, and Bridge.

As a folklorist with an interest in what child developmental studies could contribute to an understanding of the function of participation in expressive behavior, I decided to investigate more systematically the preference for card games of a sample of children of different ages in my own community. I wanted to determine initially if there was in fact a general pattern of developing preference for different card games.

I submitted a proposal to the local school district to conduct a study on children's card game preference in one section of each grade level from kindergarten through sixth grade in an elementary school and for grades seven through nine in the associated junior high school. When approval was obtained, the elementary-school sections were easily chosen as the above are heterogeneously grouped. Selection of representative sections in the junior high school proved more difficult, but after a visit to portions of two different sections, I was satisfied that all but the ninth grade sample was reasonably representative. The ninth grade sample was slightly skewed in the direction of the more moderately motivated and less successful students.

A similar proposal was submitted to a private nursery school servicing the same upper middle class community. With acceptance of the project, I worked with the cooperating classroom teachers to select ten children from each of the three and four year old groups on the basis of their being typical for their age group. These children were also selected because it was felt that they would be approachable by me and my assistants after being introduced to the idea of talking about card games by the teachers.

The questionnaire I intended to use as the basis for the survey was submitted as part of the above proposals. It was designed to solicit six responses for each of the eight card games cited earlier. The areas which the questionnaire probed were: 1) knowledge of the existence of the game, 2) number of times played, if at all, 3) extent of preference for the game at the present time, 4) who the game is played with at the present time, if anyone, 5) impression of the difficulty of the game at the present time, and 6) the

degree of confidence in playing the game at the present time. These issues were explored with respect to each of the eight games arranged for consideration in the following randomized order: Crazy Eights, Fish, Hearts, I Doubt It, War, Gin Rummy, Old Maid, and Bridge.

By necessity the procedure for obtaining responses in the above cited areas differed significantly depending on the age group. For all age groups, the essential behaviors in the play of each card game were illustrated and the goals described. One of my assistants or myself used a deck of cards and showed the outline behaviors of the game, enough so that anyone who had played the game could recognize it and so be able to respond to the questions about it. Where the game might be known by more than one name, the alternative names were indicated.

In the case of the nursery school children, one of my assistants or I worked individually with each child. Care was taken to check the responses of these children by encouraging them to describe how the game was played, what the goal was, and when the game was over. In this way yes and no answers were not accepted at face value. To hold the child's attention, miniature games were played where these nursery school children were able. Moreover, the games were played and/or shown while sitting on the floor with the child so as to minimize effect of the researchers' adult stature. The investigator filled out the questionnaire on the basis of the combined verbal and behavioral responses of the child. Considerable attention was given to designing ways to ask the questions of these very young children so that the questions would be understood and reliable results obtained. Care was taken to be sure the children did not interpret our display of the game as their own playing of the game.

With kindergarten children, four assistants and I worked with the children at separate tables in groups of four or five. The games were displayed for these children, again encouraging them to participate in describing how each game was played. Questions were asked orally of each child for each game. The researcher filled out the questionnaires for the children on the basis of their oral and behavioral responses.

From the first grade upward I illustrated the card games at the front of the classroom for all to see. Each student was given a questionnaire sheet, and he or she filled it out him or herself. Students could solicit help from an assistant if they needed it, and assistants oversaw the responses of four or five students in the first and second grades to be sure the questions were understood and the responses were appropriately placed. A sample questionnaire was written on the blackboard and I referred to it after displaying each game. For the first and second grades, I went through each question for each game, indicating the choices as answers and the place on the questionnaire where the response chosen was to be put. For the older children, I went through all six questions for at least the first game and abbreviated the later question sequences for the following games displayed. For the first graders, responding to the questionnaire was broken at the half way point by a little exercise and the play of a game of Crazy Eights in each of four groups led by an assistant. With all grades an attempt was made to involve students in the description of those games that they recognized with some enthusiasm. From second grade on, a brief discussion period followed the filling out of the questionnaire during which I explored with the students what they thought their preferences might indicate.

## Results

The above procedures produced twenty to twenty-seven usable questionnaires from each of the kindergarten through ninth grade groups and ten each for the three and four year old nursery school children. Four of the six questions posed with respect to each game resulted in useful data. The questions designed to elicit information on with whom the game was played and how confident the player felt during his play proved too problematic to yield reliable results. The findings for knowledge of, play of, preference for, and assessment of difficulty of the different games are presented in the graphs of Figures One, Two, Three, and Four at appropriate points in the text below. Each graph is a composite displaying the findings for all eight games with respect to one of the above-mentioned variables. In behalf of readability and to show the general tendencies of the data, the curve for each game on each variable represents the mean of the responses. These tendencies would be much less readable if all the fluctuations of each of the eight separate graphs in the composites were retained.

### Knowledge of the Game

The first question posed to the subjects of the study after each card game had been briefly displayed was whether they had ever heard of the game before. Figure 1 below indicates the results plotting the degree of indicated familiarity with each of the eight card games over the grade levels of the subjects responding.

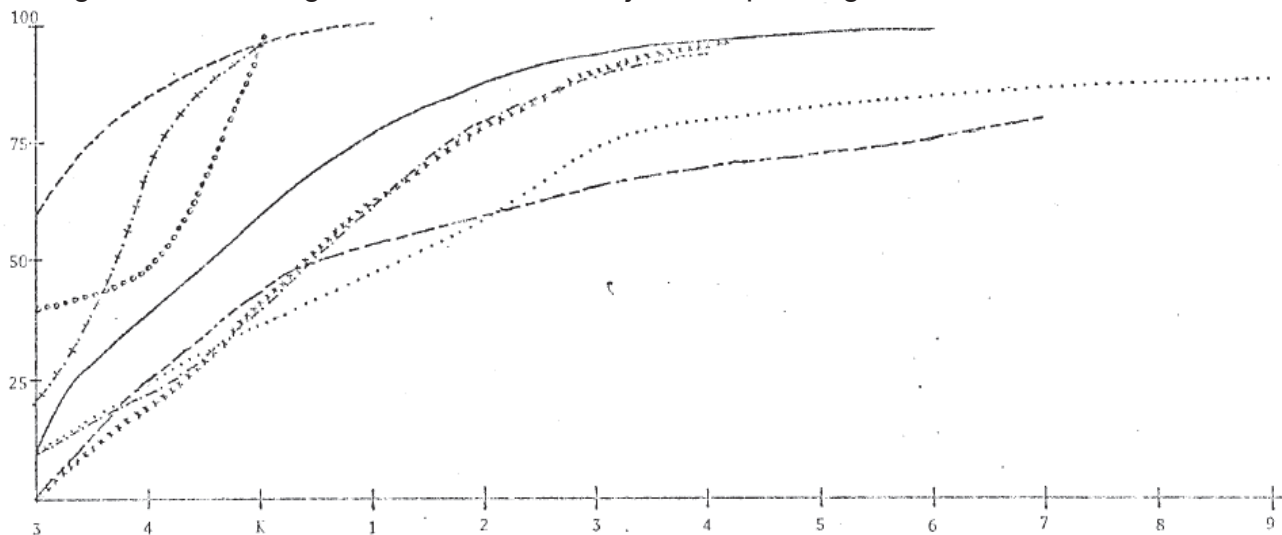


Figure 1  
Mean Knowledge of the Game Over Grade Level

Fish ----- War . + . + . + . + . + . + . I Doubt It . . . . . Hearts -----  
Old Maid o o o o o o o o Crazy Eights . - . - . - . - . Gin Rummy x x x x x x x x Bridge -----

The results revealed in Figure One are noteworthy in several respects. First, it is apparent that the majority of the students have heard of all the card games by the time they are in first grade. Indeed, before the students reach second grade seventy-five percent of them are acquainted at the personal level with all but two of the games. From third grade on, familiarity increases at a very slow rate. Clearly the children in this study are aware very early in their lives of the array of social card games that are being played. A closer look at the diagram reveals that pre-school children are most familiar with the games of Fish, Old Maid, and War, and that by kindergarten age nearly all such children know of these games. Indeed, familiarity is considerable already for three year

olds with respect to these games and further familiarity shows very rapid growth. The game of Bridge occupies an interesting position in the diagram. As the social card game played most frequently by the parents of these children, Bridge is consistently indicated as better known to young children than the card games that perhaps the older siblings of these children may be playing. This finding bespeaks both the centrality of Bridge in the upper middle class home and the primacy of the parents and their activities in the home to the knowledge of the young child. Before they are out of nursery school, it seems that the majority of upper middle class children are already aware of the basic nature of the social card game that is typically focal for their parents - Bridge. It is not at all unlikely that such awareness is part of the reason for the interest of these children in social card games of the types that we will see they come to appreciate and participate in.

After Bridge, the four remaining games, Crazy Eights, Gin Rummy, I Doubt It, and Hearts, are less familiar to the children, but they enjoy a steady, if less rapid, rate of growth into familiarity. The initial rate of growth for these games is approximately equal into kindergarten, after which Crazy Eights and Gin Rummy show a faster rise into awareness than do I Doubt It and Hearts.

Overall, the diagram suggests the following sequence of games with which upper middle class suburban children become progressively more familiar: 1) Fish, Old Maid, and War, then 2) Bridge, then 3) Crazy Eights and Gin Rummy, and then 4) I Doubt It and Hearts. If knowledge of the games logically precedes play of the games, the pattern of card game familiarity discovered here, with the understandable exception of Bridge, generally is in line with the pattern of play predicted both from my own experience and from the experience and knowledge of my daughter.

*Play of the Games*

Figure Two below presents the findings of the percent of the individuals at each grade level who have played each of the eight card games.

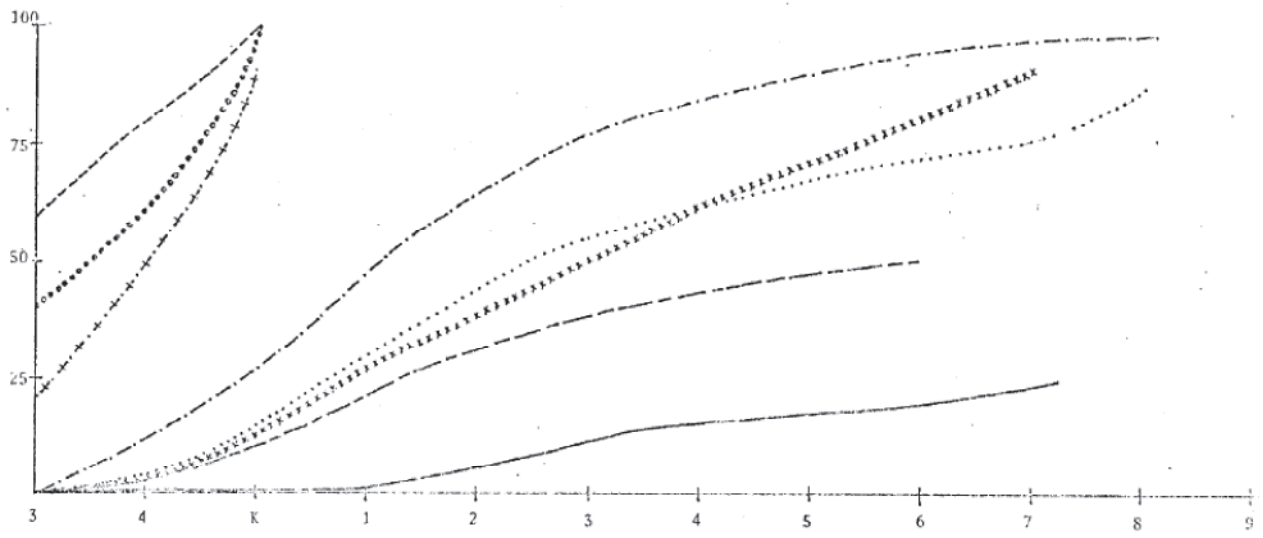


Figure 2  
Percentage Who Have Played the Game Over Grade Level

Fish ----- War . . . . . I Doubt It . . . . . Hearts -----  
 Old Maid o o o o o o o Crazy Eights . . . . . Gin Rummy x x x x x x x x Bridge -----

From the graph it is apparent that the three games that were earliest known to the children are also the ones earliest played. Moreover, the percentage of the persons playing these games increases at a rapid rate similar to the rate discovered for knowledge of these same games. By the time children are in kindergarten ninety-five percent have played Fish, Old Maid, and War in that order. Again, as was true with knowledge of the games, the other five card games display a slower rate of growth for their play over the grade levels. Crazy Eights stands out somewhat from this group as the card game played by more children at the younger ages. By first grade the majority of the children have played this game and by the third grade seventy-five percent have played the game. Slower growth is shown by I Doubt It, Gin Rummy, and Hearts, all of which show a similar growth pattern to about first grade from which point I Doubt It and Gin Rummy show growth greater than that for Hearts. Indeed Hearts never exceeds fifty percent of the sample for any of the grade levels in the survey. Gin Rummy and I Doubt It have been played by the majority of the children by third grade and each reaches nearly ninety percent of the sample between seventh and eighth grades. Bridge is the card game played by the fewest children at all grade levels, with barely twenty-five percent having played the game even once or twice by the ninth grade.

When the diagram for knowledge of the card games is compared with that for play of the games, a similar pattern emerges with three exceptions. First, we see that while the game of Bridge is known very early in life, very few children have ever played the game through junior high school. Second, Crazy Eights emerges as the game played by the most children after the preschool games of Fish, Old Maid and War. Third, we note that while Gin Rummy and Crazy Eights generally share a pattern of growth in the children's knowledge, Gin Rummy shares with I Doubt It a pattern of growth in children who play the games.

Overall the diagram of play of the games suggests that the pattern of card game play over the grade levels is an initial group of Fish, Old Maid, and War, followed by a middle group of less rapid growth that nevertheless achieves play by nearly ninety percent or above of the sample before the ninth grade: Crazy Eights, Gin Rummy, and I Doubt It, and a final pair that have been played by only fifty and twenty-five percent of the students respectively by the ninth grade: Hearts and Bridge.

The legitimacy of this pattern is further supported by the results of the children's indications of their frequency of play of each game over the grade levels. A diagram of these results is not presented here exactly because it duplicates the overall pattern for percentage of the sample playing the games. Thus, the analysis of the card games both by mean frequency of play and by percentage of the children who have played the games reveals the same pattern over the grade levels. Again, this pattern is in general accord with what I recall from my own experience and what my daughter's experience and knowledge suggested.

### *Preference*

Figure Three below presents the findings, for the children who have played the games, of their mean preference for each of the card games over the grade levels. The children were asked to indicate if they liked each of the games "a lot," "OK," or "not very much." It should be reiterated that the measure is of the expressed preference only among those who are players of the various games.

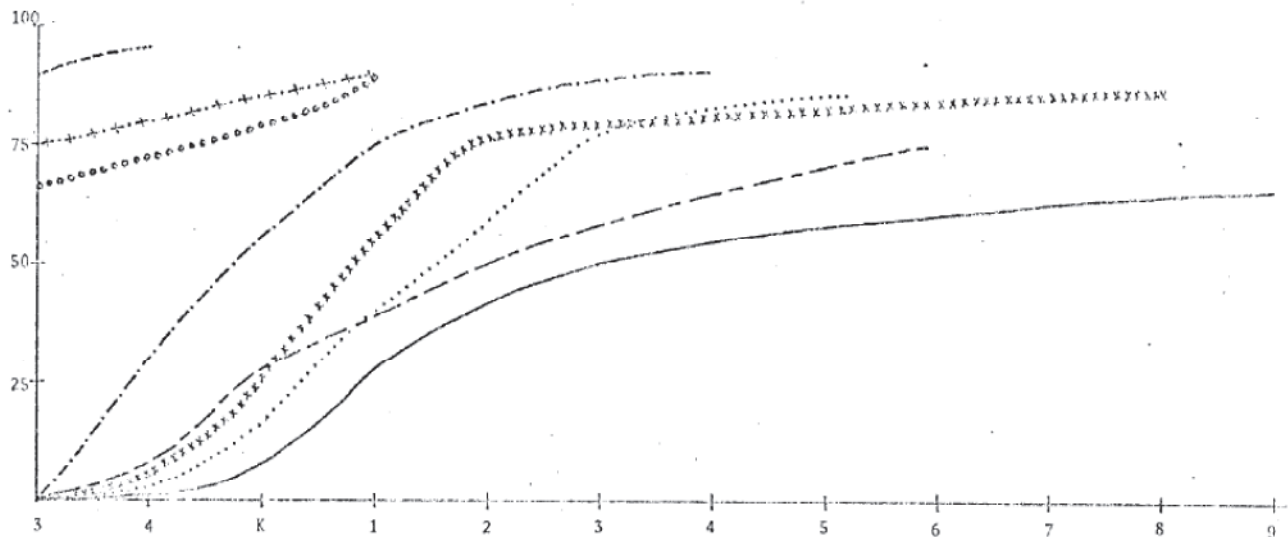


Figure 3  
Mean Preference for the Game Over Grade Level

Fish ----- War . + . + . + . + . + . + . I Doubt It ..... Hearts -----  
 Old Maid o o o o o o o o Crazy Eights . - - - - - Gin Rummy x x x x x x x x Bridge -----  
 —

The diagram presents a now familiar pattern. The three most known and played pre-school games are also the most preferred games of young children. Fish is the earliest and most preferred of these three, reaching its peak among four year old nursery schoolers. Although decline in preference is not shown on the diagram for the sake of readability, this result will be indicated where pertinent in this section. Preference for Fish declines steadily from four year old nursery schoolers on. War and Old Maid are both most preferred by first graders with Old Maid showing a steady decline thereafter, while the decline for War does not begin until second grade and shows a less steep fall from favor. From the findings on game play as well as preference, we see that Crazy Eights is most favored as well as most played in the early grade school years. The game holds its appeal reaching a peak in the fourth grade after which its popularity declines but only slightly through the remaining five years of the survey. Gin Rummy is the next game to become popular, rising in preference rapidly between kindergarten and second grade, after which preference for the game levels off, sustaining its highly preferred status through the period of the sample. It is with Gin Rummy that we discover the earliest card game to achieve and maintain high preference through the ages surveyed. I Doubt It shows a slower growth in preference pattern reaching its peak of appreciation in the fifth grade, after which it shows a slight decline. Preference for the game then levels off, retaining a mean preference rating of 75 in the ninth grade. In light of the previous patterns, Hearts makes a surprisingly rapid initial growth in preference, exceeding the preference rating for all but Crazy Eights of the intermediate group games in kindergarten. Thereafter the game grows more gradually, being overcome by both Gin Rummy and I Doubt It. By the sixth grade Hearts reaches a preference rating of seventy-five, a level it holds through the junior high school years. Among the few children who play it, Bridge is throughout the age range the least preferred of the card games considered. Even at this, the game shows a surprising rise between first and third grades, achieving a mean preference rating of "OK" at this point.

Thereafter Bridge gains in appreciation among its players very slowly, reaching a rating of only sixty-five by the ninth grade.

Overall the above pattern of mean preference for the different card games among those who have played them is in line with the patterns discovered for knowledge and play of the games. Allowing for the fact that the later slow rate of growth in preference for Hearts more than offsets its early rise in favor, the only difference in the sequence suggested by the preference findings from the earlier findings is that War and Old Maid shift positions in the initial pre-school grouping. The sequence indicated by the preference findings then is: in the initial group, 1)Fish, 2)War, and 3)Old Maid; in the second group, 4)Crazy Eights, 5)Gin Rummy, and 6)I Doubt It; and in the last group, 7)Hearts and 8)Bridge.

### Assessment of Difficulty

Figure Four below presents the findings for the children's mean assessment of the ease of each card game over the age levels.

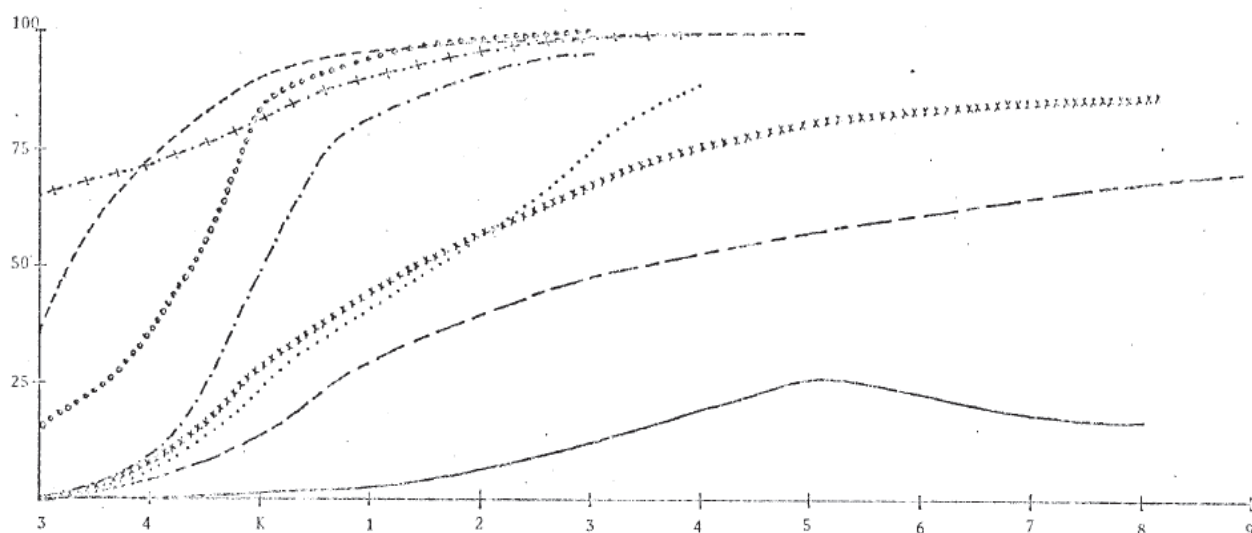


Figure 4  
Mean Assessment of Ease for Play of Game Over Grade Level

Fish ----- War .+.+.+.+.+.+.+.+.+. I Doubt It ..... Hearts -----  
 Old Maid o o o o o o o o Crazy Eights .-.-.-.-.-.-.-.-.-. Gin Rummy x x x x x x x x Bridge -----  
 —

The findings revealed in Figure Four again refer only to those who have played the various games. Of the pre-school games, War, Fish and Old Maid are initially evaluated from easy to difficult in that order. While there is a good deal of alteration in the relative assessments of War, Fish and Old Maid over the course of their climb in the ease of play rating, they constitute a group being the only card games of the eight to begin with fairly high ratings for ease and to reach 100 percent ease rating over the age group surveyed. As was the case for knowledge of, play of, and preference for the games of the intermediate group, Crazy Eights is rated as easier earlier than the other games of this group. Between four year old pre-schoolers and first graders, Crazy Eights climbs sharply to an ease rating of eighty. Thereafter the rating climbs slowly until by third

grade it reaches the ninety-five mark. It is the first game to not receive a 100 ease rating in the study.

As was true in the earlier patterns, Gin Rummy and I Doubt It show steady but slower growth in their ease ratings. The patterns of the two games are very similar until the third grade when I Doubt It becomes increasingly rated as easy while Gin Rummy continues its gradual climb and tapering. I Doubt It never reaches an ease rating as high as Crazy Eights, but it peaks at fourth grade holding from there on a rating of about ninety. Gin Rummy by contrast does not reach its peak ease rating of eighty-six until the eighth grade. Hearts and Bridge are again the card games exhibiting the slowest rise in ease ratings and reaching the lowest peak ratings in the period surveyed. Hearts is given a moderate level ease rating by the fourth grade and climbs only to a rating of seventy among ninth grade players. Bridge sustains the lowest ease ratings throughout. Its ease rating reaches just twenty-five among fifth graders but then retreats to a high of eighteen among the eight graders. Clearly Bridge is seen as the most difficult of the games by children who play it.

As a whole the pattern we discover in the mean assessment of ease for the card games surveyed is in agreement with the pattern we have found for the other variables. Clearly the pre-school games form a group though the exact order among them is not clear from the findings. Among the intermediate games the order of increasing difficulty as reflected in their slower and later rise in ease ratings and their progressively lower final ratings is Crazy Eights, I Doubt It, Gin Rummy, and Hearts. From the point of view of mean ease assessment, Bridge is in a class by itself, being rated as particularly difficult by virtually all those who play it at all ages.

### Synthesis of Results

Taken together, the four composite diagrams reveal the following:

- 1) Developmental patterns do exist for children's knowledge of, play of, preference for, and assessment of ease among the card games selected for study.
- 2) These patterns, though not identical, are in great measure in agreement with one another.
- 3) Three groups of card games emerge when the findings on play, preference and ease are brought together:
  - a) Beginning card games: Fish, War, Old Maid  
These games are the first known, the ones most often played by very young children, the games that are earliest preferred and earliest to be assessed as easy to play. These are also games whose preferred status does not sustain beyond the early years of elementary school. These games have a very rapid ascendancy and an equally rapid decline, though War lingers longer than the others.
  - b) Intermediate card games: Crazy Eights, I Doubt It, and Gin Rummy  
These games all reach their peak prior to the end of junior high school. They are games that grow in popularity at least into the middle years of elementary school. While Crazy Eights and I Doubt It, as the two games that mature earliest of the group, decline in popularity following their peak in contrast to Gin Rummy which sustains, these declines are not nearly so great or rapid as was the case for the earlier pre-school games. None of these games reaches a 100 rating for ease which suggests that they

retain their sense of challenge for the players, a fact which accords with their less rapid rate of decline, where decline occurs.

c) Advanced card games: Hearts and Bridge

These games show very gradual growth in play and preference through the age range surveyed. They are assessed as significantly more difficult than the others, especially Bridge. Neither game reaches a peak of play or preference in the period considered but seem to emerge from the junior high school era headed toward greater appreciation and involvement.

- 4) From the results on knowledge of the card games, the outstanding finding was that upper middle class children are very early aware of the nature of the social card game that is the focus of their parents' attention, Bridge. This early awareness coupled with their clear realization that Bridge is far too difficult for most of the children to play may well relate to the card games upper middle class children do elect to play in their early and middle school years. In short, this finding can be seen to help substantiate the idea that Bridge is a culmination of a series of card game explorations that do in a sense systematically lead to it.

## Discussion and Interpretation

### Preference and Ease - Implications for Function

A central issue in play and game research concerns whether involvement in play and game behaviors has instrumental input into children's development. In the present study a comparison of the findings on mean preference with those for mean assessment of ease produces results that bear on the matter. If it were discovered that children prefer games that they do not find easy, then it might be inferred that by pursuing the challenge of the game and mastering it, children learn the skills of the game, which are ones they carry from the game into every day life. If on the other hand it were discovered that children prefer games that they find easy, then it could be argued that children bring to the games they prefer and play most often the skills required for them, which they have already learned in every day life. Game and play behavior could then be said not to involve learning that affects development directly.

Our findings reveal that card games are preferred that are neither too easy nor too difficult. Throughout, the mean preference graph for each game relates systematically to the mean assessment of ease graph. The reference rating rises with the ease rating. The preference rating is typically slightly in the lead of the ease rating. Clearly as games become easier, they are more preferred. But this is true only to a point. So long as the ease rating does not exceed the mid-eighties, preference for a game sustains. All games whose ease ratings reach a consistent ninety show a drop off in preference within a year or two, though this drop may be gradual. Games that reach a steady ninety-five ease rating show a decline in preference that is more immediate and steeper. Games that achieve a consistent 100 ease rating exhibit relatively immediate and steep preference declines.

What the above findings from a comparison of the preference and ease graphs suggests is that children are interested in games on the one hand that are challenging and on the other hand that can be mostly mastered given the children's level of competence. The game challenge, then, is one that the child can expect to see progress toward mastering with a reasonable amount of practice or time spent in game

play. As children begin to sense more or less complete mastery or control of the game's challenge, they begin to lose interest. At this point preference shifts to another game that presents a challenge that has not yet been mastered. At any one time, a child's repertoire of card games can be envisioned as including games that are known but whose challenges are felt to have already been mastered, games that are currently highly preferred but whose challenges are nearing the point where they will be seen as mastered, and games whose challenges are more impressive and where interest and preference has not become especially prominent. Where the build up to a sense of mastery has been more gradual or the sense of mastery achieved is less complete, preference for a game will sustain longer and its decline will be more gradual.

The above findings support the idea that game involvement does result in learning as the child pursues the mastery of game challenges. At the same time these findings point to the fact that preference grows with this sense of mastery, the sense of increased ease. Moreover, games that are highly preferred are games whose skills are felt to have been mostly mastered. At any one point it is a small increment only that we have found to separate high preference for the game from the sense of mastery of its skills. In the typical lag period of continued high preference following felt mastery, it would seem to be the case that no new learning is occurring, only the solidification of what has already been mastered and the reveling in that sense of mastery. It follows that given the problem of this lag period of high preference, in order to test for learning in game involvement one must look to the games that are emerging as preferred, that is to games where the challenge or skills required by the game are felt by the players to moderately exceed their abilities.

Of course, many other variables besides ease affect game preference. Our findings suggest that assessment of ease is one variable significantly related to preference. One of the most significant oversights of the research on the relationship of game participation to the learning of skills that are instrumental in every day life has been the failure to recognize that games require the participant to manipulate several skills at once, typically perceptual, cognitive, physical and social skills. Unlike an academic test, which usually focuses on some one variable and evaluates a child's competence with respect to this variable under isolated conditions, games reflect a child's competence to generate behavior in terms of multiple inputs. In the game situation, it follows that performance on any one variable is not likely to equal that achieved in the testing situation. In light of this central difference in game and test situations, it is highly questionable whether learning in games can be assessed through comparisons of test scores and game "scores." Indeed, it may well be that what is learned in games, which are multivariate, is to integrate competencies, acquired elsewhere more or less as isolates, into a play world of multivariate behavior which is a simulation of the yet more complex world of every day behavior.

#### Play and Game Function: A Proposition

The integrative function of games suggested above can be fit into a more general notion of the function of play and game behavior. Drawing upon the work of Berlyne (6), Sutton-Smith has proposed in a forthcoming work that play emerges out of exploratory behavior when that behavior is abstracted and subjected to some form of conceptual reversal.(7) Sutton-Smith's proposal seems productive. My only reservation with it is that I do not see a sudden shift into play from exploratory behavior; that is, I do not see

a threshold characterized necessarily by reversal. My own view is that play behavior is an extension of exploratory behavior into a different cognitive mode. Exploratory behavior is essentially analytical; it results in the discovery of the traits or features of some object or behavior. The consequence of exploratory behavior in cognitive terms is to build a trait or feature network for the object or behavior itself and to attend to the solidification of this network or schema. Exploratory behavior so defined is a function of left brain operations, which have left brain schema consequences. As exploratory behavior moves into play, right brain functions become more important.(8) Accordingly play explores the relations between the new schema and previously existing schema, in a sense the relations of the larger cognitive network. Play tests the fit of the new within the array of the old. Like dream, play tests out the consequences of imposing or conjoining images or schema. It is in this sense that play emanates from right brain synthetic, figurative thought. The cognitive consequence of play from this perspective is to establish the productive relations of the new within the complex pattern of relations of the old, so that the new can be drawn upon in terms of the relations of the larger cognitive system.

Right brain functions are not just relational; they are also affective. In exploring relations, play also explores affect. Play tests out the affective possibilities of the new or the affective consequences of different combinations of the old. In this sense play functions to integrate the new in terms of its affective possibilities into the existing affective system. Bringing together the right brain functions of play, it can be said that as play tests out and establishes the cognitive relations among schema, it also establishes the affective tone of these relations. In this way play potentiates for both cognitive relations and the expression of affect.

Where play encourages the relational and affective exploration of schema in terms of the individual's own mental system, game tests for the adequacy of this system with respect to externally predetermined goals. Games test whether the analysis of exploration and the integration begun in play, both of which are largely determined from within, are adequate to meet demands imposed from the outside. It is the prescribed goal and process of game that make it more like real life than play. In different games the perceptual, cognitive, physical and social interactive domains are variously challenged for their individual competencies as well as for their combined competency to meet externally imposed demands. Individual or combined competencies that prove weak in the face of game challenges can grow within the play of the game or practice for the game. Game goals or challenges constitute only one source of pressure for competencies to develop in certain directions and only one arena within which development can occur. Comparable pressures arise in the challenges posed by other expressive genres and by instrumental life situations. Presumably the competence to respond adequately to the challenges of games and other expressive genres is related to the competence to respond adequately to the challenges of instrumental living. Seen in this way, the sequence of card games that is the focus of this study constitutes one expressive pattern through which upper middle class competence is engendered and expressed. A companion study explores precisely this possibility.(9)

\*This article was accepted for publication in 1978, but is first published here in 2010

## Footnotes

- 1) Elliott M. Avedon and Brian Sutton-Smith, The Study of Games, New York, 1971.
- 2) Brian Sutton-Smith, The Dialectics of Play, Stuttgart, Germany (forthcoming).
- 3) Brian Sutton-Smith, The Study of Games, pp. 429-439; and his section on "The Function of Play" in The Dialectics of Play (forthcoming).
- 4) Brian Sutton-Smith, "Play Preference and Play Behavior: A Validity Study," Psychological Reports, 16 (1965), 65-66.
- 5) Other parallel features of these two upper middle class, suburban communities include their being a) almost exclusively white, b) mostly Anglo-Saxon, Protestant, with fifteen to twenty percent Jewish population, c) professional in the occupations of the husbands, d) composed of few wives and mothers working outside the home in other than volunteer roles, and e) college educated.
- 6) Daniel E. Berlyne, Aesthetics and Psychobiology, New York, 1971.
- 7) Brian Sutton-Smith, The Dialectics of Play, (forthcoming).
  
- 8) For selected essays, and discussions of the nature and potential significance to many areas of study of research into right and left cerebral cortex faculties see: Robert E. Ornstein, ed., The Nature of Human Consciousness, San Francisco, 1973; and Charles D. Laughlin, Jr. and Eugene B. D'Aquili, Biogenetic Structuralism, New York, 1974.
- 9) Thomas A. Burns, "Card Games: Changing Preference and Developing Competence," Southern Folklore Quarterly, 43 (1979), 291-331.

## DESCRIPTION OF CARD GAMES\*

### **FISH**

Fish is a game for two to five players. A regular pack of playing cards is used. The cards are dealt one by one, and if there are two players, each receives seven cards. With more than two, five cards are dealt to each hand. The rest of the pack is placed face down in the center of the table, to become the stock. Each player in turn calls another by name, and asks for cards of a specified rank, as "Mark, give me your tens." The asker must have at least one card of this rank in his hand. If the one addressed has any other cards of this rank, he must give them up. The asker's turn lasts as long as he succeeds in getting cards. Having none of the named rank, the one addressed says, "Fish!" The asker then draws one card from the stock. If the asker draws the card he asked for from the stock, many children play that he can continue his turn. When the asker does not obtain the asked-for card either from another player or from the stock, the turn passes to the player to the left. Whenever a player gets a book, two cards of the same rank, he must show them and put them in front of himself. The one who gets the most books wins the game.

### **OLD MAID**

Old Maid is a game for two to eight players. From a regular pack of cards one queen is discarded. The other cards are dealt out, one at a time, until all are dealt - they do not have to come out even. Each player discards, face up, all his pairs. Then each player in turn shuffles his hand and offers it face down to his left-hand neighbor, who draws one

card, discards a pair if he had drawn one, and offers his shuffled hand to the left. Eventually one player must be left with the odd queen and is the "old maid".

### **WAR**

War is a game for two players. A regular pack is divided into halves, one for each player, face down. Each turns up a card and the higher wins the other, the two cards going face down into the winner's packet. This continues until turned cards are a pair; then there is "war". The pair is placed in the center; each player adds two cards; and each player turns a card, the high card winning all eight. If these cards are also a pair, they go in the center, each adds two more cards, and the whole group goes to the winner of the next turn. The game ends when one player wins all the cards or when a certain number of wars are won by a player or when time is called and the cards are counted - the player with the most cards winning.

### **CRAZY EIGHTS (EIGHTS OR SWEDISH RUMMY)**

Crazy Eights is a game for two to seven players. A regular pack of 52 cards is used with five or fewer players. With more, two packs together are used. With two players, each receives seven cards, dealt one at a time. With more than two, each receives five cards. The rest of the pack is placed face down in the center of the table to form the stock. Its top card is turned face up beside it as the starter. The turn to play rotates to the left (clockwise), beginning with the opponent at the left of the dealer. A play consists of placing one card face up on the pile begun by the starter. Each card must match the previous play in either suit or rank. The eights are wild. Any eight may be played upon any preceding card, regardless of suit or rank. The owner of the eight must specify a suit (not necessarily its own) which the eight calls for, and the next player must follow with that suit or another eight. If unable to play in his turn, a player must draw a card from the stock (some play he must draw cards until he is able to discard). Play ends when any player gets rid of the last card in his hand. He scores a total of the cards remaining in all other hands: 50 for each eight, 1 for each ace, 10 for each face card, and the index value for each other card. It is usual to award the game to the one who first reaches 100 points or more.

### **I DOUBT IT**

I Doubt It is a game for three or more persons. Two packs of regular cards are shuffled together for more than six players. The cards are dealt out as far as they will go. Any extra cards are placed in a pile face down as part of the first discard pile. Eldest hand begins by placing one or more cards face down in the center of the table, saying "Two Aces," or whatever the number of cards happens to be. He must state his number correctly, and he must say "aces," but the cards actually may be of any rank. The next player at his left must then put some cards face down in the same pile, calling "kings" and stating the number. Play continues in the same way, each in turn calling the next lower rank. After "twos" come "aces" again, the rank of the cards being circular. After each play, an other player may say, "I doubt it." The last batch of cards played is then turned face up, and if any card is not of the rank stated, the player who put them down must take up all the cards on the table. But if the cards are correct, all of the named rank, the doubter must take up all the cards on the table. If several players call "I doubt it" simultaneously, the one nearest the player's left is the official doubter. The one who first gets rid of all his cards wins the game.

## **GIN RUMMY**

Gin Rummy is a game for two persons only. A regular pack of 52 cards is used. The cards rank K high, Ace low. Face cards count 10 each, aces 1 each, other cards their index numbers. Each player receives ten cards, dealt one at a time. The rest of the pack becomes the stock and its top card is turned over as upcard. Nondealer may begin the play by taking the upcard. If he refuses it, dealer may take it. If both refuse the upcard, nondealer draws the top card of the stock. The object of the game is to form matched sets of three or more cards, or sequences. There are two kinds of sets: three or more cards of the same rank, as 9H, 9D, 9C; three or more cards of the same suit, in sequence of rank, as 10D, JD, QD. In his turn, each player must draw one card from the top of the stock or the discard pile. He must end his turn by placing one card from his hand face up on the discard pile. Cards in a hand that are not formed in matched sets are called deadwood. A player may legally knock whenever the total of his deadwood is 10 points or less. To knock is to end the play with a showdown. The player may knock after drawing in turn, but before discarding. He spreads his ten cards face up on the table, arranged in his intended matched sets and with the deadwood clearly segregated. His opponent does the same. The opponent of the knocker is entitled to lay off what cards he can on the knocker's sets, provided the knocker has not laid down a gin hand - having no deadwood. If the knocker has a lower count of deadwood, he scores the difference. If the opponent has an equal or lower count of deadwood, he scores the difference if any plus a bonus of 25 for undercut. If the knocker lays down a gin hand, he scores all of the opponent's deadwood plus a bonus of 25 points. The player who first reaches a total of 100 or more wins a game and receives a bonus of 100. If only two cards remain in the stock and neither player has knocked, the game ends in a draw.

## **HEARTS - BLACK LADY VERSION**

Hearts is a game for three to six players. A regular pack of 52 cards is used. With more or less than four players, enough of the lowest cards are discarded so that all players can have the same number of cards: In each suit the cards rank: A (high), K, Q, J, 10, 9 -2. The whole pack is dealt, one at a time in rotation to the left. Hearts is so called because every card in the heart suit counts "minus" one point when won in tricks. The Queen of Spades is a "minus" card additional to the hearts, counting 13. The focus of play is to avoid winning the Black lady, the hearts being less damaging. After the deal is completed, each player must pass three cards from his hand to his left neighbor. He must select his pass before looking at the cards received from his right neighbor. The player at left of the dealer leads first. A player must follow suit to a lead if able; if unable to follow suit, he may play any card. A trick is won by the highest card played of the suit led. The winner of the trick leads the next. If a player takes all thirteen hearts and the QS, all other players add 26 points to their totals. The points taken by each player are charged against him in a running total on a score sheet. A game ends when one player reaches 100.

## **CONTRACT BRIDGE**

Bridge is a game for four players, two against two as partners. Partners sit across from one another. The regular 52-card pack is used. In each suit the cards rank: A (high), K, Q, J, 10, 9 -2. The suits rank: spades (high), hearts, diamonds, clubs; in bidding the rank is the same except that no-trump ranks highest, above spades. The dealer gives each player thirteen cards, one at a time in order to his left. Beginning with the dealer, each player in turn may call (pass, bid, double or redouble if appropriate) until any call

has been followed by three passes. A player may pass and then on a later turn bid, double, or redouble. A bid is an undertaking to win more than six tricks with a named suit as trump (or at no-trump); the bid must name the suit or no-trump plus the number of tricks over six that the bidder undertakes to win. For example, "one spade" is a bid to win seven tricks with spades as trumps. Each bid must be higher than the preceding bid, either by naming a greater number of tricks or by naming the same number of tricks in a higher ranking suit. Additional complications of the bidding involve doubling and redoubling of previous bids. The highest bid of the auction becomes the contract. The member of the contracting side who first bid the suit named in the contract becomes the declarer. The object of play is to win tricks, to fulfill or defeat the contract. Each trick consists of a card led by one player, and a card played by each other player in turn. The player at the declarer's left makes the first or opening lead and thereafter the winner of each trick leads the next. A player may lead any card. A player must follow suit to the card led if able, and if not able to follow suit he may play any card. A trick is won by the highest card played of the suit led, or, if the trick contains a trump, by the highest trump it contains. As soon as the opening lead is made, declarer's partner spreads his hand (called the dummy) grouped in suits face up on the table. The declarer plays the dummy's cards as well as his own, but from each hand in proper turn. The two members of a partnership score as a unit. When all thirteen tricks have been played, the result is scored. If the declarer has won at least as many tricks as his contract required, he has made his bid and the value of all the tricks he won is scored in the column of his side. If the declarer has won too few tricks, his side receives no credit for the tricks it has won and the defenders score the value of the undertricks, the tricks by which the declarer fell short of his contract. The value of the undertricks depends on whether the contract was doubled or redoubled and on whether declarer's side was vulnerable, having won one game of a two game rubber. Scoring is further complicated by points that are given for overtricks, honors, and bonuses, the values of which in most cases depend on vulnerability, and whether the contract was doubled or redoubled. If the contract is fulfilled, the amount of the bid is scored. Whenever a side accumulates 100 or more points in trick scores, it wins a game. Each side then starts on the new game from zero score. The side that first wins two of three games wins a rubber, or the contest.

\* These descriptions are taken from Albert H. Morehead and Geoffrey Mott-Smith, ed. Hoyle's Rules of Games, revised edition, New York, 1958.