

Gambling in Young Adolescents

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A questionnaire was used to investigate gambling in British adolescents. Responses from fifty 13- to 14-year-olds were analyzed. Gambling was found to be very pervasive (90% of subjects reported at least some gambling activity). Males gambled more than females, both in absolute terms and as a proportion of income. Income was found to have some influence on gambling behavior, but the effects of intelligence and social class were nonsignificant. Slot machines were the commonest form of gambling in both sexes.

In his review of the literature on gambling, Cornish (1978) stated that almost 80% of the adult population of Britain gamble in some way. Cornish classified "adults" as being over sixteen. Society defines some forms of gambling as adult, by the legal restrictions on the minimum age for participation, and such legislation presumably has some influence on the popularity of these types of gambling with children. However, given that such a large proportion of the adult

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population gambles, it would seem highly probable that most individuals are first introduced to some form of gambling when they are still under sixteen. Yet there seems to have been almost no formal research into the way in which children begin to gamble (Lea, Tarpay & Webley, 1987, Chapter 14).

A priori, there are two routes through which children might acquire gambling habits. One is through direct exposure to adult gambling, presumably in the company of parents, or older friends and relatives. As a result of legislative changes in the past 25 years, adult gambling is now a highly visible activity in Britain (Cornish, 1978), and children will frequently see betting shops, advertisements for commercial gambling, and low-stake coin-in-the-slot gaming machines. However, gambling or its precursors may also be present within the autonomous culture of children's games. Direct gambling for money stakes is only rarely recorded by those who have studied children's games (*e.g.* Sutton-Smith, 1972), and Lea, *et al.* argue that chance, as distinct from risk, is relatively uncommon in the games which are maintained by children themselves, as distinct from proprietary games. On the other hand, Moody (1985) demonstrates with a vivid anecdote that chance can certainly be highly attractive to children. Risk may well be more common, and risk taking may bring the kind of social reward that might encourage a child towards a gambling habit.

The present investigation was designed to gather some systematic data on the acquisition of gambling habits. Pilot work suggested that several forms of gambling are widespread among adolescents, whereas a substantial majority of nine-year-old children reported no gambling behavior at all. Accordingly, the present study concentrated on young people in their early teens, which seemed likely to be a period of rapid transition. The aims were to discover how prevalent gambling is in this group, and to see whether exposure to adult gambling, or the culture of children themselves, first introduces children to gambling.

The extent and nature of gambling varies substantially in the adult population as a function of sex, age, social class, and income (Cornish, 1978; Downes, Davies, & Stone, 1976). Accordingly, the sample was selected so as to be broadly representative of the teenage population on these variables, and attempts were made to measure all of them. It was felt that the teenager's own income, rather than family income, was likely to be the most relevant economic variable.

METHOD

Subjects

The subjects were 51 pupils from a neighborhood comprehensive high school in Exeter, Devon; they comprised two of the three classes in one school year group. There were 31 male and 20 female pupils in the sample. Their mean age was 13.7 years. One class consisted of 24 pupils, the other of 27. The study was carried out during the (compulsory) lessons on Personal, Social and Moral education.

The pupils were in their third year of secondary education. The classes were not streamed, so the subjects were of mixed abilities. The high schools in this city receive approximately 85% of the 13- to 16-year-old population, so the sample could be expected to be representative of the teenagers in the city, except for some underrepresentation of the extremes of the ability and parental income ranges. Exeter is a typical English provincial city, with a population of about 100,000, serving as a commercial and administrative center for an extensive agricultural and tourist hinterland.

Questionnaire Design

The questionnaire consisted of nine pages. The first two requested background information. The following five pages asked virtually identical questions about five kinds of gambling which pilot work had identified as likely to occur among teenagers. The next page asked the same questions about any other kind of gambling the subject could identify as something he or she did, while the final page allowed for a free response to the questionnaire and towards gambling in general. The language used was as simple as possible throughout.

The background information sought concerned the subjects' sex, age, social status, income, attitudes towards gambling, perceived attitudes towards gambling of significant others, and intelligence. The last four of these were measured as follows:

Social Status. Participants were asked to state their parents' current or most recent job. A value for family social status was subsequently derived from Goldthorpe and Hope's (1974) Social Grading of Occupations Scale, using father's occupation where a sufficiently precise description of it was given, or mother's occupation if not.

Income. The participants were asked to state the amount of their income per week from two sources: pocket money, and "a paper round or a job like that."

Attitudes. The participants were asked to reply with one of "approve," "disapprove," or "don't mind" to questions about what they thought of gambling, and what they thought their parents and teacher thought of gambling.

Intelligence. The second page of the questionnaire asked the participants to write one-line definitions of 12 words from the Mill Hill Vocabulary Scale (Raven, 1958).

The definitions were subsequently marked as correct or incorrect by one of the authors, to give a score for verbal intelligence, on a scale from 0 to 12.

The specific types of gambling investigated were card games, coin games, dominoes, slot machines, and "betting with your friends," i.e. wagering. "Coin games" was intended to include betting on the toss of a coin, and a locally popular game that involved throwing pennies against a wall, the winner (usually the player whose penny lands closest to the wall) taking all the pennies. At the top of the page about each kind of gambling, the participant was asked, for example, "Do you play slot machines?" and instructed to turn to the next page if not.

The questions asked about each of these, and the answer categories made available, were:

How often do you [play]? Often (more than once a week)/Occasionally (one or two times a month)/Rarely (one or two times a year).

How much money do you [bet at one time]? 1-10p/11-50p/more than 50p.

Where do you play? At home/At school/Elsewhere

Who do you [play] with? Friends/Brothers or sisters/Parents

Who taught you to play this game? Friends/Brothers or sisters/Parents/Other relations

How old were you when you started playing this game?

When you win what do you do with the money?

For each kind of gambling, a rough measure of expenditure per year for each participant was calculated by multiplying the amount wagered (scoring 1-10p as 10p, 10-50p as 50p, and more than 50p as £1) by the frequency of playing (scoring often as 52, occasionally as 12 and rarely as one). Clearly this procedure cannot give a very accurate quantitative estimate of gambling expenditure, but it should produce a reasonably valid ordinal scale.

Procedure

The questionnaires were completed by the two classes on one afternoon, so that there was no opportunity for discussion between the classes. The pupils sat at double desks with a boy and a girl at each desk; since young teenagers tend to have same sex friends, it was hoped that these seating arrangements would dissuade them from collaborating. The teacher of the classes was present, as an observer only, for most of the time.

Before the questionnaires were given out, the first author introduced them. She stressed the definition of gambling as a voluntary activity involving risk, chance, and sometimes a degree of skill, gave examples of gambling (football pools, betting on horse races and greyhound races, card games, lotteries, dominoes, bingo, casino games, wagering friends, coin games and slot machines) and emphasized that video games were not a form of gambling. She also stressed that she was not taking a particular moral stance, but was merely interested in obtaining some information, and that only she would see the replies. Finally, she told the pupils not to put their names

on the questionnaire (this instruction was repeated on the first page), and gave general instructions about how to fill it in.

The questionnaires were then handed out, and collected in from each pupil as soon as he or she had finished. When the whole class had returned their questionnaires, there was a brief discussion about the study and about gambling in general.

RESULTS AND DISCUSSION

Of the 51 completed questionnaires, one had to be discarded because virtually no information was given. In a few other cases, no socioeconomic status or weekly income could be determined; data from these subjects are excluded from analyses involving these variables. Table 1 summarizes the main characteristics of the sample, broken down by sex.

Judging by the present sample, gambling is a pervasive activity in young British adolescents of both sexes. Eighty-nine percent of our subjects (boys, 93%; girls, 84%) claimed to gamble in some way. The most common form of gambling was slot machines (81% participation), and their popularity may have been exaggerated by the location of the study: from Exeter there is easy access to nearby seaside towns where there is an abundance of amusement arcades, and Exeter itself has one or two arcades. At the seaside, in particular, children can get unrestricted access to slot machines. Some other forms of gambling

Table 1
Sample Characteristics

<i>Variable</i>	<i>Sex</i>			
	<i>Boys</i>		<i>Girls</i>	
	<i>Mean</i>	<i>Range</i>	<i>Mean</i>	<i>Range</i>
N		30		20
Socioeconomic status	51	18-75	35	18-65
Income (£/wk)	5.07	0.60-15.00	4.21	1.50-10.00
Vocabulary score (/12)	6.8	1-10	6.2	2-8
Age (yrs:mos)	13:8	13:0-14:0	13:8	13:0-14:6

were also quite prevalent, for example card games (53% participation), wagers (51%) and coin games (twenty-six percent). Wagers reported involved an interesting variety of topics: there was one report of a conventional gambling topic (greyhound racing), but more typical were wagers about the subjects' own activities (fights, races into town), what would be on TV, the weather, and even earwig races and "a fly and a moth crawling up a wall."

The subjects reported starting gambling at surprisingly young ages, the means being eight yrs three months for boys and eight yrs nine months for girls. While these retrospective reports need to be checked with a cross-sectional study, and the youngest ages reported may well be taken with a pinch of salt, it does seem likely that a substantial proportion of children, especially boys, are engaging in some form of gambling by the age of ten.

Reported gambling expenditures were considerable. The highest figure was £260 per year, which probably reflects the inadequacies of our estimation procedure. But the mean estimates (£38.45 for boys and £9.52 for girls), and the mean percentages of income (6.0% and 1.4%), are plausible. At the time of this survey, £1 exchanged for approximately 1.85 US dollars.

The sex differences in gambling expenditure and the percentage of income spent on gambling were highly significant. They emerged both in simple t-tests ($t = 3.31$ for expenditure, 3.59 for percentage of income, $df = 48$, $p < 0.01$) and in a multiple regression analysis of gambling expenditure in which age, social status, and income were also taken into account (the regression coefficients against the dummy variable of sex was 21.71 £/yr, $p < .005$). They were found whether nonparticipants were counted as having zero expenditure, or whether they were excluded from the analysis.

Sex differences were found for every form of gambling. Downes et al. (1976) report a similar effect for adults. It is possible, of course, that it was inflated by a tendency for boys to overreport gambling expenditure, and/or for girls to underreport it. However, even such reporting biases would still reflect very different attitudes to gambling in the two sexes. While the present study cannot explain the sex differences in gambling behavior within our society, therefore, it does show that they are of fairly early developmental origin. Gambling is not something that girls and boys sample equally, but only boys persist with; it is much more part of the culture of boys than of girls, from quite a young age.

Income had a substantial effect on reported gambling behavior (regression coefficient of 4.98 £/yr gambling expenditure per £/wk

income, $p < 0.001$). It may have been increased because the subjects' incomes were proportionately small; in effect, most of an adolescent's income is "discretionary income" (Katona, 1975), *i.e.*, not committed to necessary expenditure on food, rent, and suchlike. Although not significant, the effect of income was still positive when reported gambling expenditure was expressed as a proportion of income; this means that gambling has a positive income elasticity of demand among adolescents, so that it would be classified econometrically as a luxury.

Intelligence and social status had no apparent effect. The measures of these variables were of course rough and ready, but they were good enough to detect predicted relationships among the independent variables; for example, the correlation between vocabulary score and social status was positive ($r = 0.53$, $p < 0.002$; cf. Butcher, 1968, Chapter 10), and that between social status and income was negative ($r = -0.31$, $p < 0.05$; cf. Reid, 1977, though his result was not replicated by Furnham & Thomas, 1984). So if these factors had been strongly related to gambling, the effect would have been detected.

Table 2 summarizes the main qualitative findings about the context of gambling. Sex differences were slight, so these data are not reported separately for boys and girls. Because of the occurrence of multiple and null responses, these data were not suitable for statistical analysis. However, the Table does make it clear that the social contexts of different forms of gambling are different. Card games and dominoes are primarily family activities, most often learned and played at home, and so children clearly acquire these forms of gambling from the adult world. The same is evidently true of the small amount of "commercial" (betting shop) gambling reported in this study (three boys said that they betted on greyhound racing or did football pools, and because of legal restraints they would have needed adult cooperation to do this).

On the other hand, coin games and wagers mostly occur out of the home, often at school (despite school rules forbidding all games of chance). These are clearly part of the autonomous culture of childhood; despite a combined residence in Exeter of 15 years, the authors had never heard of the game of throwing pennies against the wall, in its local form, before this study.

Slot machines are a category on their own; obviously they involve the adult world, as suppliers of the machines, but most children reported first playing them with friends. Several subjects reported that playing them was something they did on their own; and in discussion after the questionnaires had been filled in, it was only in relation to slot machines that the children came forward with anecdotes of anything

Table 2
The Context of Gambling: Percentages of Participants in Each Kind of Gambling Who Responded as Indicated to the Questions About Where They Gambled, Who They Gambled With, and Who Taught Them to Gamble

	<i>Gambling Type</i>					
	<i>Card Games</i>	<i>Coin Games</i>	<i>Dominoes</i>	<i>Slot m/cs</i>	<i>Wagers</i>	<i>Other</i>
<i>Number of participants</i>	27	13	5	41	25	6
<i>Where do you play?</i>						
At home	78%	38%	60%	0%	28%	33%
At School	4	31	0	0	60	0
Elsewhere	37	38	20	100	64	67
<i>Who do you play with?</i>						
Friends	52%	92%	40%	59%	96%	100%
Siblings	37	31	20	29	20	17
Parents	44	8	40	20	12	0
<i>Who got you into this?</i>						
Friends	22%	69%	40%	44%	68%	83%
Siblings	15	8	20	12	24	17
Parents	44	8	40	17	16	17
Other relatives	41	15	0	15	24	17

like compulsive behavior. Expenditure on slot machines was not well-correlated with expenditure on other forms of gambling, and it was very poorly predicted by the independent variables (only 12% of variance accounted for in the regression analysis, compared with 26% for card games, the next most prevalent form of gambling). It may thus be a somewhat isolated kind of behavior, and, despite its prevalence, it remains to be seen whether it is this kind of behavior, or more conventional gambling, that would be a better predictor of an adolescent's subsequent gambling career.

With two boys' questionnaires discarded because of incomplete or multiple responses, results from the attitude questions were as follows. Two girls (10%) and eight boys (29%) positively approved of gambling; one girl (5%) and no boys disapproved; and the rest responded

“don’t mind.” One girl and one boy claimed that their parents approved, two girls and eight boys that they disapproved. One girl and three boys claimed that their teacher approved of gambling, 14 girls and 19 boys (70% and 68%) that she disapproved. This majority view was true in the sense that she told the experimenters that she would not gamble herself, but she did not in fact condemn others who participated. It is likely that the subjects’ perceptions stemmed from their stereotype image of a teacher as a disciplinarian, and of gambling as an only one-half legitimate activity.

In several cases subjects attributed disapproval of gambling to their parents, yet subsequently reported that their parents had introduced them to one or more forms of gambling, and had participated with them; these data must be contaminated by inconsistency of some sort. The inconsistency need not, of course, be on the subjects’ part; it too may well be a reflection of the ambiguous status of gambling in the society in which these adolescents are growing up.

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