

# MARK GRIFFITHS

## Gamblers: do they win or lose?

The topic of adolescent gambling — particularly fruit machine gambling — is attracting growing interest, but there has still been little research into the area.

In countries where national surveys have been conducted, it has been concluded that approximately two thirds of the adult population surveyed gamble at some point in their lives. It may be that most sources treat gambling as an 'adult' behaviour because of the legal restrictions on it.

However, fruit machine gambling is more widespread than is generally recognised and a number of researchers (including myself) have reported that, in some adolescents, gambling may become pathological. In this article I hope briefly to evaluate the current research and suggest a few directions forward.

I will also examine adolescent video game playing, because many of the concerns raised about the playing of video games are very similar to the concerns raised about the playing of fruit machines.

### *Points or money?*

The main differences between the two types of machine are that video games are played to accumulate as many *points* as possible, whereas fruit machines are played (for

example, gambled upon) to accumulate as much *money* as possible. However, playing a video game could be considered as a non-financial form of gambling, and taken to excess, both behaviours can be considered non-substance addictions.

The other major difference between video games and fruit machines is that on video games the outcome is by and large a product of *skill*, whereas on fruit machines the outcome is usually a product of *chance*. Another minor difference is that fruit machines can only be played in licensed premises (for example in amusement arcades or casinos) whereas video games can be delivered via four general hardware systems — hand-held, personal computer, home video console and amusement arcades.

### *Gambling as play*

It is obvious that a person does not magically become a gambler at a certain age. It has been proposed by a number of researchers that the ritualised play of several childhood games provides 'training' in the acquisition of gambling behaviour and that some games are precursors to actual gambling.

Some leading authorities (like psychologist Igor Kusyszyn) hold

the view that gambling is in itself adult play.

There are a number of games which bear a strong resemblance to gambling behaviour and could be argued to provide gambling experiences (such as marbles, card flipping, card playing etc.). Not surprisingly most participants are boys and those girls who do take part are usually called 'tomboys'. Another interesting observation is that in games involving winners and losers, the real prize is often status as opposed to positive material gain.

**Who plays?**

Most surveys which have reported on the incidence of amusement machine playing among a general population have concluded that they are most frequently played by male adolescents. In the US approximately nine out of ten teenagers play video

games at some point during their adolescent years.

Anthropologist David Surrey claims the clientele of video games can vary between business people and teenagers, to women shoppers and young children. However, it is the older teenage boys who predominate. In a survey of 2,000 video game players in 1982, psychologists Geoffrey and Elizabeth Loftus reported that without exception the most frequent players were teenage males.

Incidence figures for video games in other countries are lower than in the US, but the games are still mostly played by adolescents. Since American adolescents have little access to fruit machines (they are only found in licensed casinos where age admittance is a minimum of 21 years old) there are no incidence statistics. In the UK, however, children and ado-

**Table 1. Summary of UK research studies on amusement machine playing in adolescents (m=fruit machines; g= video game)**

Researchers	Year	Total	Age	Played (%)	Regular players (%)
Waterman & Atkin	1985	451	14-18	77	9
Huff & Collinsons	1987	100	15-21	35 (m) 60 (g)	24(m) 27(g)
Barham	1987	329	11-16	51	19
Ashdown	1987	71	11-15	70 (m) 76 (g)	23 (m) —
National Housing & Town Planning Council	1988	9752	13-16	64 (m) 52 (g)	14 —
Spectrum Children's Trust	1988	2434	11-16	66 34	8.7 (m)
Home Office	1988	1946	10-16	13 (m) 11 (g) 14 (both)	6 (m) 10 (g)
Wyatt	1988a	634	11-15	59 (m)	—
Wyatt	1988b	194	11-15	84 (m)	—
Beverly Area Management Committee	1989	50	14-20+	94	90
Leeds Polytechnic	1989	576	11-16	39 (m) 44 (g)	6
Brown	1989	134	12-16	44 (g)	—
Bentall et al	1989	213	15-51+	100 (m)	41 (m)
Griffiths	1990	8	19	100 (m) 50 (g)	100 (m)
Griffiths	1990	50	14-21	100 (m) 68 (g)	34 (m)
Rands and Hooper	1990	2817	11-16	20 (m) 23 (g)	9 10
Balding	1990	7870	14-15	21 (m) 8 (m)	33 (g) BOYS 7 (g) GIRLS

lescents have ready access to both video games and fruit machines.

Table 1 outlines a comprehensive summary of UK research studies on amusement machine playing in adolescence. Incidence figures of amusement machine playing ranged between 13% and 100% depending upon the research methodology employed, and in nearly all studies, males played upon both video and fruit machines significantly more than females.

**Amusement machines and addiction**

*Are amusement machines detrimental to a young person's healthy development? This is the question at the centre of almost all debate concerning the playing of amusement machines.*

A popular argument against amusement machines is that they are potentially addictive and that their over-use can produce excessive and irrational behaviour. This is probably due to the fact that in their respective countries, both video games (US) and fruit machines (UK) have low stakes and can be found in a myriad of locations including cafés, bars, restaurants, hotels, cinema foyers, arcades, etc.

A number of researchers have argued that 'video game addiction' and 'fruit machine addiction' are like any other behavioural addictions, consisting of compulsive behavioural involvement, a lack of interest in other activities, association mainly with other addicts, and physical and mental symptoms when attempting to stop the behaviour (for example, the 'shakes').

Undeniably, amusement machines can absorb a lot of children's time and money, however much of the evidence for 'video game addiction' particularly, is of anecdotal nature.

Evidence for signs of 'fruit machine addiction' are also quite sparse but steadily growing. Nearly all the studies on fruit machine playing (outlined in Table 1) have shown that a small minority of individuals have severe behavioural problems as a re-

sult of their excessive fruit machine playing. The debate centres around how big the 'minority' is.

A number of studies have reported the use of lunch money, stealing, and playing truant to play fruit machines as well as a range of other behaviours which may be indicators of potential fruit machine dependence (for example, borrowing money, heavy playing, chasing losses, irritability when not playing). Although there is a dearth of hard data concerning 'fruit machine/video game addiction' it is clear from the studies outlined that some individuals (and quite possibly a significant minority) have a *bona fide* gaming dependency.

**Future directions**

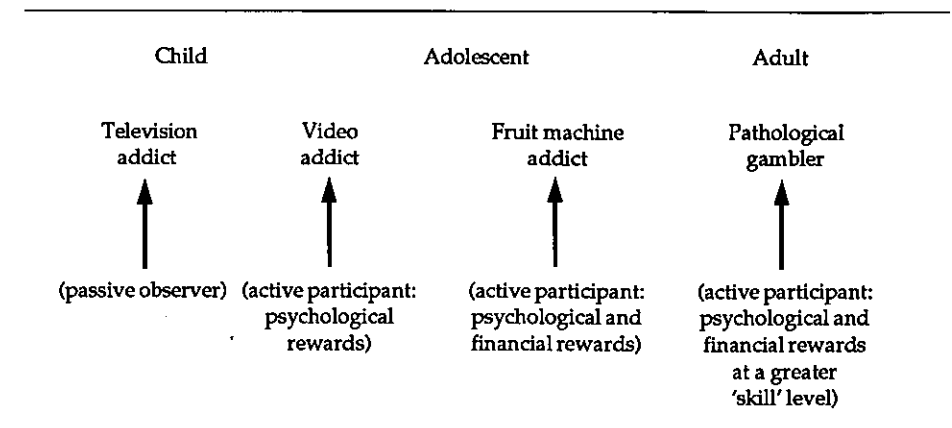
From the summary of fruit machine studies in Table 1, it is evident that gambling is a popular activity among the young. Although it is likely that most adolescents can control their gambling, it is a worrying fact that clear signs of pathological gambling have been found in a number of studies including my own.

Probably the most important aspect of research into gambling in youth is the need to realize that pathological gambling is not just an adult phenomenon, although existing findings need to be replicated and verified.

The main problem with adolescent gambling dependence is that there are so few observable signs or symptoms and it is not as visible to the eye as alcohol or illegal drug addictions. It has been reported that the adolescent gambler may undergo a personality change but parents may conclude that *it's a stage they're going through*, implying that the differences are due to the hormonal changes during puberty.

The only other typical external sign of gambling problems might be arrest for crimes involving stealing to procure more money to 'feed the addiction'. Much research needs to be carried out into the roots, causes and incidence of pathological gambling in adolescents, as well as into the

**Table 2 A development model of a possible route from a television viewer to pathological gambler**



families of teenage gamblers and the impact of addictive gambling on schooling.

There is an urgent need for research into the use and abuse of fruit machines. It needs to be ascertained to what extent fruit machines have become a social problem, and 'facts and figures' about use of premises and people with serious problems are needed.

It would also be useful to illustrate particular problem cases highlighting arcade associated difficulties, maybe even following single case studies longitudinally and recording the developmental features of the 'adolescent gambler at large'. This would help determine the variables which influence how adolescents 'learn' to gamble.

**Is TV to blame?**

In 1989, psychologist Iain Brown produced a developmental model of how machine gambling addictions might develop, which I have since expanded upon. It could be that 'addicted' amusement machine players were previously television addicts and possibly go on to become pathological gamblers (see Table 2).

In chronological terms, the child may invest an abnormal amount of time watching television because of parent and/or peer deprivation and become a continuous passive observer. At some later stage, the child/adolescent may discover television has an active medium, that is,

the playing of video games in which the child is psychologically rewarded through interaction and decision making via the television screen.

**A chance to win!**

At the next stage the discovery of fruit machines is made (probably as an adult in the US and an adolescent in the UK). At this stage, the rewards during man-machine interaction are both psychological and financial (ie the player has the chance to win money). It is the final stage that the player may become a pathological gambler when they discover that other forms of gambling (for example, horse-race betting, card playing) have psychological and financial rewards but also require a greater level of skill than fruit machine playing).

Although predictions from this type of model are hard to test, retrospective questionnaire and interview studies may reveal that video game or fruit machine addicts were once constant television viewers or that pathological horse race gamblers were once addicted to fruit machine playing.

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