REFERENCES

- Abramovitch, R., Freedman, J.L. and Pliner, P. (1991), 'Children and money: getting an allowance, credit versus cash, and knowledge of pricing', *Journal of Economic Psychology*, 12, 27-45.
- Bourdieu, P. and Passeron, J.C. (1970), La reproduction. Eléments pour une théorie du système d'enseignement, Paris: Minuit.
- Delarue, J.M. (1991), 'Banlieue en difficultés', La rélégation, Paris: Syros.
- Fosse-Gomez, M.H. (1991), 'L'achat de vêtements de l'adolescent: est-ce encore un achat familial?', Colloque Européen sur les Modes de Vie et de Consommation des Jeunes. Paris.
- GSI-CFRO (1989), 'L'argent des jeunes', Sciences et Vie Economie, 52, 12-17.
- Institut de l'Enfant (1992), 'L'argent de la poche à la banque', Libération, 22 January,
- IPSÓS (1991), 'Argent de poche, l'apprentissage', Budgets Famille, Mars 1991, 16-
- Kokosowski, A. (1978), Enseigner les Sciences Economiques et Sociales, Paris: PUF.
 Lassarre, D. and Roland-Levy, C. (1989), 'Understanding Children's Economic Socialization', in K. Grunert and F. Olander (eds), Understanding Economic Behavior, Dordrecht, Boston, London: Kluwer Academic Publishers, pp. 347-68.
- Lassarre, D., Maurice, R. and Lance, B. (1992), 'Economic education at home', IAREP/GEW Joint Conference, Frankfurt/Main, August.
- Lautrey, J. (1980), Classe Sociale, Milieu Familial, Intelligence, Paris: PUF.
- Marshall, H. (1964), 'The relation of giving children an allowance to children's money knowledge and responsibility and to other practices of parents', *The Journal of Genetic Psychology*, **104**, 35-51.
- Marshall, H.R. and Magruder, L. (1960), 'Relations between parent money education practices and children's knowledge and use of money', *Child Development*, 31, 253-84.
- Michaud, P. and Bourdy, M.C. (1991), 'La consommation des jeunes détenus', Colloque Européen sur les Modes de Vie et de Consommation des Jeunes, Paris.
- Ministère de l'Education Nationale (1990), Education à la consommation, Circulaire numéro 90-342 du 17 décembre.
- Mortimer, J.T., Dennehy, K. and Lee, C. (1991), 'Economic Socialization in the American Family: the Prevalence, Distribution and Consequences of Allowances Arrangements', Colloque Européen sur les Modes de Vie et de Consommation des Jeunes. Paris.
- Verges, P. (1989), 'Représentations sociales de l'économie: une forme de connaissance', in D. Jodelet (ed.), Les Représentations Sociales, Paris, PUF, pp. 387-405.
- Webley, P. and Lea, S. (1991), 'Towards a More Realistic Psychology of Economic Socialization', Colloque Européen sur les Modes de Vie et de Consommation des Jeunes, Paris.
- Ziegler, B. and Child, I. (1969), 'Socialization', in G. Lindzey and E. Aronson (eds), Handbook of Social Psychology, Vol. 3. Reading, Mass.: Addison-Wesley, pp. 450– 555.

9. Playing the market: the autonomous economic world of children

Paul Webley

INTRODUCTION

Most research into children's economic socialization has concentrated on children's understanding of aspects of the adult economic world (Burris, 1983; Furnham, 1986; Berti and Bombi, 1988; Roland-Levy, 1990; Leiser et al., 1990). This has given us valuable descriptions of the stages children pass through in achieving adult conceptions of work, money, value, price and so on. By contrast, the focus of the recent research carried out at Exeter has been on children's economic behaviour (for example, Webley et al., 1990; Sonuga-Barke and Webley, 1992a) and the question of how they solve the wide range of economic problems they face. Much of the economic behaviour of children is, of course, part of the adult economic world. The most obvious example is pocket money, where children are given money so they can participate as consumers in the economy (Furnham and Thomas, 1984; Webley et al, 1988; Hill, 1992). Children also do household work (Goodnow, 1988), work part-time for money and exchange gifts (Eimers, 1992). But in addition to this explicitly economic behaviour, children construct their own autonomous economic world involving bargaining, bartering, swopping and betting.

Unfortunately, very little is known about these kinds of activities. There are a number of valuable descriptions of playground life, though these tend to concentrate on games and their associated rituals (for example, Opie and Opie, 1969; Sluckin, 1981). There is also some research on the language of trading (Mishler, 1979) and a certain amount on the precursors to gambling (Griffiths, 1991; Ide-Smith and Lea, 1988; Smith and Abt, 1984). The picture this research paints is engaging but frustrating. Clearly, there is an autonomous economic world (as Smith and Abt, 1984, put it, 'While marbles were not the coin of the realm, they were a form of currency among those who played with them') but we learn more about the language associated with it than the economic substance. For example, Sluckin (1981) refers to the need to say 'Tin tacks, no backs' to ensure that a child does not change his mind

about a swop and Mishler (1979) describes the language in which rules of equivalence are put forward and discussed ('Those are smaller, so if I give you one, you'd hafta give me like five'). One conclusion that can be drawn is that the economic sub-culture is likely to vary enormously from school to school and region to region since this is the pattern found for games, rules and rituals. According to Blatchford et al. (1990), none of their sample of 175 London schoolchildren reported playing marbles in the playground, whilst from the studies of Sluckin (1981) and Linaza (1984) it is clear that marble playing was alive and well in Oxford and Spain in the early 1980s.

THEORETICAL AND METHODOLOGICAL ISSUES

One could conclude that the lack of attention given to swopping and related activities is entirely appropriate. Surely these are trivial activities and so of little interest to psychologists? I think not. I would argue that activities like swopping and bargaining are more real for children than the adult world of working, investing and spending. As Furth (1978) wrote:

We should recognize that children's peer relations are bound to be more real and their relations to the adult world more playful. Sitting quietly next to dad on a bus is for the 4-year-old girl a play that she chooses to enact ... In contrast, the girl's interactions with a friend ... are for real: Here the two children are literally constructing their social life and fashioning themselves into socialized persons. (Furth, 1978, p. 103)

So it is at least arguable that children's notions of value, for example, owe as much to their experience of swopping a football card for a marble as to their experience of buying sweets in a shop and it is almost certainly true that their bargaining skills are honed in the playground rather than in negotiations about pocket money with their parents.

But an apparently 'trivial' activity like swopping raises a far more important issue for researchers, namely to what does the 'economic' in economic socialization refer (Webley and Lea, 1993; Sonuga-Barke and Webley, 1992b)? For the most part researchers have adopted a nominal definition of economic activity and the term has served simply as a label for that part of the social world concerned with the acquisition, management and distribution of wealth. So the child's understanding of buying, banking and borrowing have all been seen as legitimate areas of study. However, taking the meaning of 'economic' for granted is probably unjustifiable. We cannot rely, as we can in other areas of economic psychology, on the fact that researchers and the researched share assumptions about the nature of economic activity. Children do not, in general, use the word 'economic'.

What definitions of economic behaviour could, then, be used? One possibility is to consider behaviours that involve maximizing utility. The problem with this is that any behaviour that is consistent can be described as maximizing something (Rachlin, 1980), which means that economic behaviour would include nearly all behaviour. This problem could be resolved if we used Simon's (1957) idea that economic behaviour involves action where the individual intends to maximize, but this raises problems of its own. Another option is to consider behaviours which are generally labelled 'economic' (the approach that has usually been followed). This is fine as far as it goes, as long as we recognize that the concept of economic behaviour is culturally and historically determined and, more importantly, that the boundary between the economic and the non-economic is inevitably poorly defined. I would tentatively propose that all economic behaviour has something to do with exchange and the division of labour. Note that it is not necessary for money to be exchanged (there are plenty of examples of economic systems where money was unknown).

This definition shifts our attention somewhat. Whether studying adults or children we should be concerned not only with the cash economy; it is legitimate, for example, to ask questions about the economic psychology of the norms governing neighbourly help (Webley and Lea, 1992) and similarly to investigate swopping, bargaining and using marbles as 'coins of the realm'. Though these behaviours may seem trivial to adult bystanders they are certainly not for the participants.

We can reach this same point by another route. The Maussian approach to objects identifies two distinct types of social relations: commodity relations and gift relations (Carrier, 1991). Put simply, commodity relations are impersonal; there is a transfer of an object or service from A to B and countertransfer of money (usually) from B to A. By contrast, although gift relations also consist of a transfer and a countertransfer, the relationship is not transient and the object continues to be identified with the giver. Thus the area of life which involves the household, family, friends and neighbours is likely to be characterized by gift relations and that associated with work and shops by commodity relations. The study of economic socialization, like economic psychology generally, has clearly been overconcerned with the commodity domain (children's understanding of money, work and so on). Investigating aspects of gift relations (in this case, economic relationships with friends) is long overdue.

Does this concentration on real economic behaviour have any implications for methodology? There are two important points. First, we should expect to find considerable variability in the forms of 'indigenous' economic culture among children (as we have already seen in the case of marbles). This suggests that we need to ground our investigations in a firm knowledge of the

particular culture and use different experimental materials in different schools. This is to use a form of 'individualized' experiments, to use the term coined by Greenfield and Zukow (1978). In these, what is held constant across subjects is not the physical characteristics of the stimuli but the functional relationship between the subject and the stimuli. They give the example of researchers interested in the effect of how familiar an object is on lexical overgeneralization. They might show children photographs of objects from their own environment which were classified as to their degree of familiarity; thus the pictures would be different but their functional relationship with the child equivalent. Similarly, in investigating children's understanding of the relationship between rarity and value, one would use examples of tradeable objects from their own playground that differed in rarity; in one school this might be marbles, in another, football cards.

Second, investigating the economic culture of children is clearly a kind of ethnography. Childhood is another country and they do things differently there. What is required to interpret this culture are local informants. This suggests that child collaborators are vital, and that without them we may find ourselves left outside the gates of the playground, staring in.

Initial inquiries revealed that there is considerable informal economic activity at schools, though much of it has the flavour of the underground economy. Swopping, for example, is banned at many schools because of complaints by parents and the exploitation of younger children by older children. Betting, though common (Ide-Smith and Lea, 1988) is also frowned on by the school authorities. Activities that are permitted, such as the swopping of football cards, are often confined to one sex.

SWOPPING

Swopping has been investigated by two of my students, Bardill (1985) and Traub (1991). Bardill used unstructured interviews and investigated the current swopping activities of 30 children from a social priority school aged between 6 and 8, and swopping as remembered by adults. Traub used more structured interviews and scenarios involving swopping and had a larger, and more middle-class, sample: 60 children with equal numbers from the three age groups 8, 10 and 12. This gives us a fairly clear picture of swopping, although we should be cautious about generalizing our findings to other times and other places.

Swopping seems to be most popular among 8-10-year-olds and generally takes place at school (though a third of swops reported to Traub took place at home). The most common response of the adults when asked how old they were when specific incidents of swopping took place was nine and those who

could not remember specific incidents suggested ages between seven and ten, with nine being the most popular response. Perhaps surprisingly, the recollections of adults correspond with current self-reports by children. According to their own accounts, swopping is most frequent for 8-year-old boys and 10-year-old children of both sexes. Most of the 12-year-olds reported that they had not swopped anything in the last term and several said that they had given up swopping for good. So swopping is clearly an activity of middle childhood.

Again, the recollections of adults and the accounts of children as regards what was swopped are very similar. The adults remember swopping pencils, stickers, conkers, erasers, marbles, top trump cards, sweets, stamps, toy cars, beads, football and sweet cigarette cards; the children reported swopping all kinds of stationery (pens, pencils and erasers), toys, football cards, stickers, games and books and food (crisps and sweets). There seemed to be a consensus among children that swopping items should be of low value, one reason mentioned being parental disapproval of high value swops. Maternal disapproval was a feature of the specific swopping incidents remembered by adults: one respondent remembered swopping a pencil set for something inferior and her mother being very angry and insisting that the swop be reversed.

The usual swop is fairly straightforward and immediate (I'd like one of your crisps; do you want a Smartie for it?') but some swops take a long time and may involve days of arguing and negotiation. For some children, this period of negotiation seemed to be the most meaningful part of swopping. The usual swapping partner was a fellow class member, most often a friend, though most children had no favourite swopping partner. If they did, it was because the other child was trustworthy and their friend.

The children's accounts of why they swopped fell into three groups. First, there were economic justifications, such as 'getting better things', 'getting rid of something you don't want any more and getting something back' and 'it is cheaper than buying'. In some cases the economic motive was starkly stated: 'Get rid of rubbish and get other things free.' Second, there were a group of accounts centred around the idea of friendship. Several children said that they would swop 'because you do it with a friend' and pointed out that 'If we swop we become best friends.' Third, there was the idea that swopping was simply enjoyable; as one child commented, 'swopping is fun'.

To tease out the role that economic and social factors play in swapping, Traub presented her respondents with three scenarios. In the core of the first, the children were told: 'The first child is a good friend of yours and the pen s/he offers you is, well, alright, it's OK. But the other child, who you only know a little bit, s/he offers you a really great pen ... What would you do?' The answers varied between the age groups but essentially most children

chose the friend. Two-thirds of the 8-year-olds and three-quarters of the 12-year-olds made this choice, though the split was 50/50 with the 10-year-olds. In the second scenario, the children had to imagine how they would react if a friend refused a swop. The preferred strategy of the 8 and 10-year-olds was to find another swopping partner, whereas the 12-year-olds mostly preferred just not to swop. This probably reflects the diminishing interest in swopping at that age. In the final scenario, the children had to decide whether they would agree to a poor swop with a pleasant child who was new to the class. Again, the 10-year-olds appeared to have a more economic approach; most would not agree to such a swop, whereas two-thirds of the 8-year-olds would.

A Hidden Economy

The picture of swopping that emerges from these studies corresponds in a number of ways to Henry's (1978) analysis of part-time trading (dealing in goods that have 'fallen off the back of a lorry') in his book, The Hidden Economy. He discusses the customs, norms and motives involved in parttime trading which distinguish it both from normal trading and from normal crime. He claims that the transactions which occur are meaningful in terms of the social relationships between members of trading networks rather than in terms of monetary benefits; put simply, that part-time trading is more social than economic; or, in Maussian terms, that it is concerned with gift relations. The parallels between part-time trading and swopping are intriguing; those involved in trading admit that it is illegal but see it as a good thing and trading usually takes place openly but carefully. Similarly, swopping has an illegal air with parents and teachers vetoing certain kinds of transactions and often banning it altogether. At a more fundamental level, Henry identifies two kinds of social rewards in trading, 'competitive play' and 'reciprocal favours'. The former, which involves ideas of beating the system, corresponds with children's acquisition of things through swopping that they otherwise could not get hold of. For example, a child who is not allowed crisps by his parents can easily swop things for them at school. The latter, involving the norms and expectations of a friendly relationship, is clearly comparable for most swopping. Finally, Henry points out how easy it is to misunderstand part-time trading if it is seen from the perspective of economic rationality (as it is in courts of law). Just as the hidden economy is 'mystified and transformed in the court setting', so may swopping be distorted and misunderstood by a parent. Though the evidence is not overwhelming, it is arguable that swopping is essentially an act with an economic form but a social function.

SOCIOECONOMIC ASPECTS OF MARBLE PLAYING

Marble playing in England seems to be unique in appealing to both sexes across a reasonable age range and involving a variety of interesting activities (though this has not always been the case: Sutton-Smith, 1982, shows how marbles were originally played mainly by boys). Some children collect marbles in the same way as they collect coins or stamps. For others, playing marbles is an important activity and one that involves considerable skills, technical, social and economic.

Marbles are made in a wide variety of sizes and colour combinations. These cost different amounts in the shops but, more important, have different values and names within the school context. The unit of value in the playground is not the cost in pennies but the number of 'goes' that a marble player can have in the various games. A 'bonker cats-eye', for example, is usually valued at ten, which means that in the standard game (described below) a player could have ten attempts at hitting the target marble, if the target was an 'ordinary'.

In Exeter, marbles come in five basic sizes, though there is considerable variation within each category. The main sizes are miniatures (7 mm diameter), standard (1.5 cm), bonkers (2 cm), grannies (2.8 cm) and granddads (3+ cm). Various colorations (spotted, striped, opalescent and so on) are found in most of the different sizes and so there are a large number of different types of marble. Each coloration has an appropriate name, though these vary from school to school. At one school in Exeter the names in use are ordinaries, pixies, cats-eyes, frenchies, bare ladies, petrols, squids, jinks, galaxies, oilies (and dutch oilies), pirates, spotted dicks and misties. A granny spotted dick is thus a large clear marble with spots of different colours which is worth 15-20 and a miniature jinks is a small plain marble all of one colour which is worth roughly three.

In Exeter, there appear to be four different ways of playing marbles. The simplest involves rolling a marble from a distance towards the target marble. If the player hits the target marble he wins it. The number of 'goes' depends on the value of the marble being rolled (this is the standard game described by Piaget, 1932, as 'courate'). The second way is to make a hole or small ditch in the ground and to designate a marble as a prize. The other player tries to roll their marble into the hole. If they succeed within a negotiated number of 'goes' (dependent on the value of the marble being rolled and the value of the prize marble) they win the prize marble. The third way involves one player 'setting out' two marbles with a small gap between them. The other player attempts to roll their marble through the gap without hitting either of the marbles. In this case, if the player succeeds they win both marbles. The number of goes depends on the value of the marbles involved and the size of

the gap. The final way is an elaboration of the first and is called 'choices'. Three (or more) marbles are set out and the person shooting chooses which to aim at. If he hits it within the negotiated number of goes he chooses another one to aim at and so on until he has no goes left.

From this brief description it should be apparent that it is possible to win marbles even if one lacks technical skill. A player 'setting out' his or her marbles has to assess the skills of the shooter and adjust the difficulty of the game or the terms offered.

Marbles are not just a game. Just as there were cigarette economies in prisoner of war camps (Clarke, 1946; Einzig, 1945) so is there a marble economy in the playground. Marbles have an exchange value; they can be swopped as well as won and lost. One obvious question, then, is how far children understand the relationship between scarcity and value. This phenomenon of 'scrambling' (scattering marbles for others to collect and keep) has parallels with potlatch (Codere, 1950) which are interesting. Perhaps the most striking discovery is that children will 'work' for other children. This involves one child providing the capital (the marbles) while another provides his or her labour (playing the game). The winnings (earnings) are then divided between the two children.

Although, as was pointed out above, there is little psychological research into the informal economic activities of children, two areas of research do provide some background to these features of the marble economy: children's notion of value and children's notions of fairness. Berti and Bombi (1988) and Burris (1983) have investigated children's understanding of value. Burris, for example, reports that 4-5-year-olds explain the value of an object by referring to its physical size. Thus a diamond does not cost much 'because it is so tiny'. For 8-year-olds value is explained in terms of usefulness or function. A wristwatch costs more than a book because 'you can tell the time on a watch but a book you can just read'. By contrast, the 10-12-year-old group understand value from the point of view of production. Value is put into the object during production and its magnitude depends on the type or cost of the inputs. So a wristwatch is worth more than a book because 'it has glass and motors in it and it comes with a band and that's leather and it usually has silver or gold framing and ... it's just got more'. Berti and Bombi studied children across the same age range and conclude: 'Taking our own results with those reported by Burris it seems reasonable to conclude that before 10 or 11 years, and even later for many children, price appears to be an intrinsic property of goods, something directly derived from its characteristics' (p. 113). On these grounds we might expect children to believe that some marbles are more valuable than others because they are bigger or more beautiful and not because of the relative supply and demand for different marbles. With regard to the division of the proceeds between the marble capitalist and the marble worker, such research as there is suggests a developmental shift from judgements of fair division based on parity to those based on investment (Eiser and Eiser, 1976; Moessinger, 1975). For young children the simplest solution to resource allocation (that all participants should receive the same) is regarded as fair; older children take the participants' inputs into account.

The Study

The approach used to investigate the marble economy was exploratory. First, six children of middle school age were individually interviewed about all aspects of playing marbles to obtain background information. From these interviews three topics were identified for further study: children's understanding of the relationship of scarcity and value; the phenomenon of 'scrambling' (scattering marbles for others to collect and keep); and the rules governing working for other children. Five scenarios involving these topics were then presented to 34 children aged between eight and eleven.

Two contrasting scenarios about scarcity were presented, counterbalanced for order and separated by the other scenarios. In one, 'St Thomas' school won a marble competition and every child got 100 or a new type of marble called metal spotted dicks. There were thousands of them in the school'; in the other, 'At another middle school in Devon a child brought along some of the new metal spotted dicks. There were only two of them in the whole school.' In each case the child was asked what they thought their value in terms of goes would be and why. This revealed that there was widespread recognition of the relationship between scarcity and value. A partial repeated-measures ANOVA (Analysis of Variance) was carried out on the values given by the children for the 'metal spotted dicks' in the two conditions of scarcity and abundance. There was no effect of sex but scarcity had a significant effect (see Table 9.1).

When the children were questioned as to why they gave the marbles different values in the scarce and abundant conditions, 31 said it was due to

Table 9.1 Mean value of 'metal spotted dicks' in terms of goes as a function of scarcity and sex

	Rare	Common	
Girls	11.93	5.43	
Boys	12.36	5.50	
Boys Both	12.17	5.47	

rareness, one that it was because 'big ones' were worth more and two gave the marbles the same value in each condition.

The scenarios elicited various reasons for scrambling (see Table 9.2), and it seems as if scrambling may be a reputation-enhancing act (as with the potlatch). Scrambling remains something of an enigma, though this interview extract gives some hints:

- I. Why do you scramble marbles?
- C. Because you don't want them. If you don't want them you just throw them away for other people to have.
- I. Because you don't want them any more?
- C. Because it is a waste of time to get rid of them by shooting 'cos you end up winning more.
- I. Does it make you very popular if you scramble?
- C. Sometimes. I had about 150 marbles and I got them all in my box and I flung them across the playground. There were all these marbles everywhere, all over the playground. It was really funny.

Table 9.2 Reasons given for scrambling

He had too many, was bored, did not want them

He wanted to be more popular

He was showing off to get noticed

He wanted to be able to play with those who got them

He did not want them

No one would play with him

He was angry

He wanted other people to think he was popular

The final scenario looked at the phenomenon of working and examined how the spoils should be divided between owner and worker: 'Jane had no marbles and asked Tom if she could work for him. She took one of his marbles and went and played. It was Jane's lucky day and she won ten marbles. Jane went back to Tom with her winnings and Tom gave her a chipped pixie'. The children were asked how many marbles they thought Tom should have given her and what they would have done if they were Tom.

There was a professed belief that any marbles won should be roughly equally divided between the child providing the capital (the marble) and the child supplying the labour (the play), though there was a bias in favour of the capitalist. The modal answer to the question of how many marbles Jane should have received was 5 (that is, a 50/50 split) though the mean was rather lower (see Table 9.3)

Number of marbles	1	2	3	4	5	6	7	8	9	10
worker should get Number of children	2	3	10	. 1	13	0	0	2	0	3

To try and get opinions that were less influenced by social desirability, my daughter (a 10-year-old at the time) interviewed a large number of children in the playground about working for people. She found that, despite the commonly expressed belief that in working the winnings should be equally divided, in practice the marble capitalist always took a bigger share than the marble worker. Thus we see in the marble economy what appears to be a genuinely autonomous economic world. Though it intersects with the adult world (after all, marbles can be bought in the shops) it has its own norms and rules. It was evident from the interviews, for example, that it is local scarcity that determines the value of a marble in the playground and not its price in the shops. How far this economic world depends on the adult world is debatable. I suspect that working for someone is a direct copy of the outside economy; the origins of scrambling are rather more obscure.

CONCLUSIONS

Although I am well aware of the limitations of this research (notably the small samples and relatively primitive data collection), it is clear that there is considerable potential for research into the autonomous economic worlds of children. I would argue that this area is not only engaging (there is a certain nostalgic charm in studying playground behaviour) but has a serious contribution to make to our understanding of economic socialization. There are a number of issues that need to be tackled. First, there is the question of how far the playground economy is a precursor of the adult economy. Harre (1974) argued, in another context, that it is the autonomous social world of the child that is the true precursor of adult social relationships and not the attachment relationship formed between parent and child. If this is true in the economic world, we need to concentrate more on marbles and less on pocket money. Second, there is the question of realism. I suspect that, paradoxically, it may be through what seems to us play that children derive a firm grasp on economic reality. My impression is that children's understanding of the marble economy is considerably more sophisticated than their understanding of the adult economy: this impression needs to be put on a firm empirical footing. Finally, there is the issue of taking economics for granted. This has

meant that researchers interested in economic socialization have neglected certain kinds of behaviour – but have also neglected other disciplines with something to offer, most obviously economic anthropology. So a change of emphasis is needed in research in economic socialization in the future.

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REFERENCES

- Bardill, J. (1985), 'Swopping', BSc project, University of Exeter.
- Berti A.E. and Bombi, A.S. (1988), *The Child's Construction of Economics*, Cambridge: Cambridge University Press.
- Blatchford, P., Creeser, R. and Mooney, A. (1990), 'Playground games and playtime the children's view', *Educational Research*, **32**, 163-74.
- Burris, V. (1983), 'Stages in the development of economic concepts', *Human Relations*, 36, 791-812.
- Carrier, J.G. (1991), 'Gifts, commodities and social relations: a Maussian view of exchange', Sociological Forum, 6, 119-36.
- Clarke, G.B. (1946), 'The experiment', Clare Market Review, 41, 27-31.
- Codere, H. (1950), Fighting with Property: a study of Kwakiutl potlatching and warfare 1792-1930, New York: J.J. Augustin.
- Eimers, Y. (1992), 'Gift Evaluation by Children', unpublished report, University of Exeter Economic Psychology Research Group.
- Einzig, P. (1945), 'The cigarette standard', The Banker, 75-6, 148-50.
- Eiser, C. and Eiser, J.R. (1976), 'Children's concepts of a fair exchange', British Journal of Social and Clinical Psychology, 15, 357-64.
- Furnham, A. (1986), 'Children's understanding of the economic world', Australian Journal of Education, 30, 219-40.
- Furnham, A. and Thomas, P. (1984), 'Pocket money: a study of economic education', British Journal of Developmental Psychology, 2, 205-12.
- Furth, H.G. (1978), 'Children's societal understanding and the process of equilibration', in W. Damon (ed.), New Directions for Child Development, Vol. 1, San Francisco: Jossey-Bass, pp. 101-22.
- Goodnow, J. (1988), 'Children's household work', Psychological Bulletin, 103, 5-26.
 Greenfield, P.M. and Zukow, P.G. (1978), 'Why do children say what they say when they say it?', in K. Nelson (ed.), Children's language, Vol. 1, New York Gardner Press.
- Griffiths, M.D. (1991), 'The acquisition, development and maintenance of fruit machine gambling in adolescence', PhD thesis, University of Exeter.
- Harre, R. (1974), 'The conditions for a social psychology of Childhood', in M.P.M. Richards (ed.), The Integration of the Child into the Social World, Cambridge: Cambridge University Press.

- Henry, S. (1978), The Hidden Economy, London: Martin Robertson.
- Hill, M. (1992), 'Children's role in the domestic economy', Journal of Consumer Studies and Home Economics, 16, 33-50.
- Ide-Smith, S. and Lea, S.E.G. (1988), 'Gambling in young adolescents', *Journal of Gambling Behavior*, 4, 110-18.
- Leiser, D., Sevon, G. and Levy, D. (1990), 'Children's economic socialization: Summarizing the cross-cultural comparison of ten countries', *Journal of Economic Psychology*, 11 (4), 591-631.
- Linaza, J. (1984), 'Piaget's marbles: the study of children's games and their knowledge of rules', Oxford Review of Education, 10, 271-4.
- Mishler, E.G. (1979), "Wou' you trade cookies with the popcorn?" Talk of trades among six-year-olds', in O. Garcia and M. King (eds), Language, Children and Society: the effects of social factors on children learning to communicate, Elmsford, NY: Pergamon, pp. 221-36.
- Moessinger, P. (1975), 'Developmental study of fair division and property', European Journal of Social Psychology, 5, 385-94.
- Opie, P. and Opie, I. (1969), Children's Games in Street and Playground, Oxford: Oxford University Press.
- Piaget, J. (1932), The Moral Judgement of the Child, London: Routledge and Kegan Paul.
- Rachlin, H. (1980), 'Economics and behavioral psychology', in J.E.R. Staddon (ed.), Limits to Action, New York: Academic Press, pp. 205-36.
- Roland-Levy, C. (1990), 'Economic socialization: Basis for international comparisons', Journal of Economic Psychology, 11, 469-82.
- Simon, H.A. (1957), Models of Man, New York: Wiley.
- Sluckin, A. (1981), Growing Up in the Playground, London: Routledge and Kegan Paul
- Smith, J.F. and Abt, V. (1984), 'Gambling as Play', Annals of the American Academy of Political and Social Sciences, 474, 122-32.
- Sonuga-Barke, E.J.S. and Webley, P. (1992a), Children's Saving, Hove: Erlbaum.
- Sonuga-Barke, E.J.S. and Webley, P. (1992b), 'Toward a development economic psychology' (unpublished manuscript).
- Sutton-Smith, B. (1982), 'Sixty years of historical change in the game preferences of American children', in R.E. Herron and B. Sutton-Smith (eds), *Child's Play*, Malabar, Fla.: Krieger.
- Traub, A. (1991), 'Swopping and economic socialization', Testamur project, University of Exeter.
- Webley, P. and Lea, S.E.G. (1991), 'Towards a more realistic psychology of economic socialization', *Journal of Economic Psychology*, 14, 461-72.
- Webley, P. and Lea, S.E.G. (1992), 'The partial unacceptability of money as repayment for neighborly help', *Human Relations*, 46, 65-76.
- Webley, P., Levine, R.M. and Lewis, A. (1988), 'Money for saving and money for spending: parental views about children's saving', in P. Vanden Abeele (ed.), Psychology in Micro- and Macro-economics (Proceedings of the 13th IAREP colloquium), Leuven: IAREP.
- Webley, P., Levine, R.M. and Lewis, A. (1990), 'A study in economic psychology: children's saving in a play economy', *Human Relations*, 44, 127-46.