A substantial research effort over the past 45 years has resulted in a greatly improved understanding of the way in which antisocial rather than prosocial behaviour is learned and maintained. This paper reviews this research effort. It concludes that the primary causal processes are microsocial process such as elevated rates of modelling of antisocial behaviour plus the inadvertent positive and negative reinforcement of antisocial behaviour together with depressed rates of modelling and reinforcement for appropriate social behaviour. These basic learning processes for antisocial behaviour first appear in interactions with parents, then in interactions with parents and teachers, and finally in interactions with parents, teachers, and peers. When these "training" processes are allowed to operate for a number of years, the child's repertoire of habitual antisocial responses to the demands of others becomes increasing entrenched and difficult to change. It is true that the contexts in which these "training" processes operate are often characterised by such macrosocial conditions as economic disadvantage, early parenthood, parents with mental health problems, parents with addictions and so on. However experimental research suggests that these variables are correlates of antisocial development not causes because, unlike the microsocial learning processes, the macrosocial factors are not present in all cases of antisocial development.

1. Introduction

Coming to understand the causes of antisocial behaviour problems in children is important for a number of reasons. First, it is clear from longitudinal studies from several different countries that the children who are most at risk of violent offending in adulthood are the children who engage in the highest rates of defiance, tantrums, and antisocial behaviour during childhood (Broidy et al, 2003; Fergusson & Lynskey 1998; Moffitt, Caspi, Rutter & Silva, 2001).

Secondly, adult violent offenders incur very large social costs. The About Time report estimated that the cost to society over the lifetime of one recidivist offender amounted to some $3,000,000 (Department of Corrections, 2001). The same report estimated that early intervention which succeeds in halting and reversing antisocial development can be expected to return $50 in savings for every $1 spent.

Thirdly, the prevalence of early onset antisocial development is about 4.5 per cent at each year level from Year 4 onwards (Bretherton, 1997, 2000; Church, 1996). This means that in every school of 200 students there will be about 9 students, on average, who will require
specialist teaching which is effective in managing antisocial behaviour, teaching social skills and developing age appropriate levels of self control.

2. Risk factors as causes

The Advisory Group on Conduct Problems, which operated from November 2007 to November 2011, was established to advise the Ministries of Education, Health and Social Development on the most effective ways of reducing the prevalence of severe antisocial behaviour problems in children and youth. Within the AGCP there was an ongoing debate between the epidemiologists and the behaviour analysts regarding the causal factors responsible for the development of persistent antisocial behaviour in children. In the 8-12 report, for example, the epidemiologists argued that

There is a large and ever growing literature on the factors that place children and young people at risk of developing significant levels of childhood conduct problems . . . What emerges most strongly from this body of evidence is that there is no one single factor or set of factors that explains why some young people develop significant conduct problems while others do not. Rather, the evidence suggests conduct problems are the end point of an accumulation of factors that combine to encourage and sustain the development of antisocial behaviours (Advisory Group on Conduct Problems, 2011, p. 15).

The report then lists the kinds of risk factors identified in the longitudinal studies, factors such as "underlying genetic factors", "the general socio-economic milieu within which children are raised", "the nature and quality of the child’s family environment", "the nature and quality of the school environment", "the role of peers", and so on.

3. An alternative view of cause: Social learning theory

This paper argues that "risk factors" are not causes. It argues that antisocial behaviours and skills are acquired, that is learned, in the same way that positive social behaviours and skills are acquired, that is, as a result of identifiable learning processes such as observational learning, trial and error learning, shaping, practice, feedback, differential reinforcement, and so on. The paper argues that a risk factor like "adverse family environment" is a context in which social (or antisocial) behaviours are acquired and practised and that it is the learning processes which are the "cause" not the context in which the learning processes are operating.

The idea that antisocial behaviour or, more correctly antisocial development, constitutes a departure from the normal pattern of social development during childhood and adolescence is shared by a number of modern researchers (Lahey, Waldman, & McBurnett, 1999; Loeb, 1990; Mash & Dozois, 2003; Maughan & Rutter, 1998; Moffitt, 1993; Patterson, 1996). “Antisocial behaviour appears to be a developmental trait that begins early in life and often continues into adolescence and adulthood” (Patterson, DeBaryshe & Ramsey, 1989, p. 329).

The most detailed account of the learning processes which function to produce antisocial behaviour is that provided by the research of the Oregon Social Learning Centre (OSLC). The main findings of the OSLC research programme will be found in four book length reports: Reid (1978), Patterson (1982), Patterson, Reid and Dishion (1992), and Reid,
Patterson & Snyder (2002). An integrated review of the OSLC research programme (and a number of related research programmes) will be found in Dishion, French and Patterson (1995). Not only is the OSLC research programme the most detailed, it is also the most methodologically sophisticated. It has used direct observation (rather than self-reports) as its primary data collection method. The coercion training model developed by the OSLC researchers has been continuously refined and tested over a 40 year period using observational studies (e.g. Patterson, 1982); structural equation modelling (e.g. Patterson et al., 1992); and experimental manipulation in clinical trials (Reid et al., 2002).

4. Positive and negative reinforcement processes

The earliest sign that the young child may be heading towards an antisocial developmental pathway is the child's failure to acquire age appropriate levels of compliance with parental instructions. In most families, compliance training begins early - around about the child's first birthday. A failure to accomplish this teaching goal signals a lack of parental effectiveness in handling disciplinary confrontations and results in an increase in the number of coercive exchanges between the child and other family members (Patterson, 1976). Normally developing pre-school boys and girls yell, tease, or whine at a rate of about once every four minutes but oppositional children tend to engage in these behaviours twice as often (Patterson, 1982; Sanders, Dadds & Bor, 1989). “At a very early age, high risk, oppositional children are engaged in day-to-day warfare with their parents, and their parents are heavily engaged in the process” (Reid, 1993, p. 247).

The OSLC reports describe several ways in which the parents of oppositional children inadvertently strengthen child misbehaviour. One of these processes is inadvertent positive reinforcement of coercive child behaviour. For example, the child whines because he wants a snack even although it is almost dinner time. The parent gives in to the demand thereby reinforcing both the child's whining and the child's impatience.

A second and even more common way in which coercive child behaviour acquired and strengthened is through inadvertent negative reinforcement. For example, the mother is struggling to get the child to comply, the child repeatedly refuses, the mother gives in, and the child ceases his or her tantrum. In this sequence, the child's defiance has been negatively reinforced (it has paid off) because it has enabled the child to avoid doing something that they didn't want to do. The mother's giving up has also been negatively reinforced because it has resulted in a cessation of the child's aversive tantrum.

Exchanges such as these occur at a higher than normal rate in the families of antisocial children. For example, Snyder and Patterson (1995) found that the coercive tactics of antisocial children worked more often (46% of the time) to terminate conflicts than constructive tactics (29%) whereas the constructive tactics of normally developing children worked more often (38%) than coercive tactics (30%). Not only are young antisocial children “at war” with their parents but it is a war which the oppositional child frequently wins. “As family despot, they control the family and all of its members” (Patterson, 2002a, p. 39).

The OSLC data suggest that, in the families of antisocial children, conflicts occur about 4 times an hour on average (Patterson, 2002b). This represents 40 antisocial training trials per day, or 14,600 per year. “Repeated over thousands of trials, the child learns to use coercive
behaviors to gain control over a disrupted, chaotic or unpleasant family environment. These patterns become overlearned and automatic and operate without conscious, cognitive control” (Dishion et al., 1995, p. 439).

In addition, the parents of oppositional children tend to provide lower rates of positive reinforcement for desirable child behaviour than do the parents of normally developing children (Patterson, 1982; Patterson et al., 1992). As Dadds (1997, p. 526) has noted,

“the more a child engages in problem behaviors, the less likely the child will be reinforced for positive behaviors. Parents who feel they are spending hours engaged in unpleasant interactions with a child (sorting out fights, arguing over chores, having attention demanded) are less likely to notice and attend to the child's positive behaviours. Thus, a vicious circle entraps the parent and the child in which the parent has a “break” whenever the child is not misbehaving.”

5. Demonstrating and teaching

Most pre-schoolers learn to take turns, to share toys, to co-operate with peers, and to follow the instructions of parents and pre-school teachers. They do so because these skills are taught, and they continue to use these behaviours because they generate more reinforcement (over time) than coercive behaviours.

The parents of antisocial children, however, tend to neglect the task of actively promoting, noticing, shaping and reinforcing prosocial skills. One of the indicators of this is that the families of antisocial children are less likely to engage in joint activities and in joint conversations than the families of normally developing children (Patterson, 1982; Gardner, 1987). Here too we find that the prosocial skills of oppositional children generate less positive reinforcement than coercive skills. In other words, “it is not functional for young children to develop prosocial skills” (Dishion & Patterson, 1997, p. 206).

6. Setting limits and managing misbehaviour

There now seems to be little doubt that a lack of skill in handling disagreements and conflicts during the pre-school years is a key factor in the development of antisocial behaviour in children. All young children throw tantrums, refuse to comply, tease their siblings and hit. When the parents of a normally developing child intervene in coercive exchanges they more often than not intervene effectively, that is, in a way which stops the coercive behaviour. “Skilful parents model and teach but do not fight. They do not back down from child threats, tantrums, and defiance but calmly persist until the lesson is taught” (Snyder & Stoolmiller, 2002, p. 99).

The parents of children with conduct problems, on the other hand, natter and scold, but they do not confront (Patterson, 1982). When the child engages in disobedient or antisocial behaviour, the parents threaten but do not punish the child. As a consequence, antisocial behaviour is not suppressed, and internalised controls over this kind of behaviour are not developed in the way that they are in normally developing children. Even more importantly, warnings and reprimands do not come to guide and control the behaviour of the antisocial
child in the way that they come to guide and control the behaviour of the normally developing child.

7. High rates of antisocial behaviour begin to generate high rates of punishment

The defiant responses, avoidance responses, and aggression of the antisocial child have important effects of the behaviour of others, that is the child's antisocial behaviour functions to change the context in which development is occurring.

For example, observational studies have found that antisocial children tend to spend less time on task (e.g. Walker, Shinn, O'Neill & Ramsey, 1987) and tend to complete less homework than their normally developing peers (e.g. Dishion, Loeber, Stouthamer-Loeber & Patterson, 1983). As a consequence, many antisocial children begin to fail academically. In addition, antisocial children accumulate many more disciplinary infractions (for such things as lateness, non-compliance, cheekiness, and so on) than normally developing children (Walker et al., 1987). Because of their frequency, these infractions set up a negative interaction pattern between the child and his or her teachers and reduce teachers' willingness to work with the child.

A child who engages in high rates of antisocial behaviour attracts a lot of punishment (negative reactions) from both normally developing peers and those responsible for his or her welfare. Underachievement at school changes the school experience from one where successes outweigh failures into one in which failures outnumber successes. This too reduces the reinforcement and increases the punishment which results from engagement in academic tasks. The high rates of punishment which result from coercive interaction at home and at school and school failure have a debilitating effect on the growing child's mood, self esteem, and attitude to others. Gradually self-esteem is replaced by a set of attitudes which tend to hold others in contempt rather than respect and in which it is always the other person who is at fault whenever anything goes wrong.

8. Antisocial children get shut out of normal peer groups

A child who lacks social skills and who engages in high rates of coercive and aggressive behaviour is highly likely to be rejected from groups of normally developing peers. Coie & Kupersmidt (1983) found that when primary school aged antisocial children were introduced to normally developing age mates in ad hoc play groups, the antisocial children were quickly and decisively rejected.

In fact, peer rejection may be a misnomer because antisocial children tend not to be accepted into groups of normally developing peers in the first place. In a new setting, children actively search out other children who have similar interests and similar ways of behaving. The OSLC group refer to this as shopping. Shared activities, interests, and norms of behaviour are all important in the formation of friendship groups. Antisocial pre-school children tend to call attention to themselves and to use negative control strategies when trying to enter peer group play (rather than using the more mature strategy of identifying the theme of the shared activity and entering into it in an unobtrusive way). Shinn, Ramsey, Walker, Stieber & O'Neill (1987) observed 6% per cent of normally developing boys initiating aggressive interchange with a peer but observed 60% of the antisocial boys initiating such
interactions - providing further evidence that, by this age, aggressive reactions to peers have become habitual.

As a consequence of this rejection the antisocial child misses out on a number of socialization experiences each day. "What he misses most are the subtle exchanges with normal peers that teach cooperation... parents cannot teach this. The antisocial boy does not learn when or how to accept negative feedback through experiences with peers" (Patterson et al., 1992, p. 118). Because this process starts quite early, antisocial children "miss out on opportunities to acquire and practise prosocial alternatives at each stage of development" (Moffitt, 1993, p. 683).

9. Negative feedback loops begin to operate

Patterson et al., (1992) liken rejection by peers and academic failure to feedback loops. They are both a consequence of the child's behaviour and conditions which contribute to the further development of antisocial behaviour and attitudes.

The parent who is continually defeated in face-to-face disciplinary confrontations with a child begins to feel that the child is uncontrollable and that there is nothing more that they can do. Eventually, the parent may stop monitoring what the child is doing. When the child is no longer being monitored, the stage is set for the learning of new antisocial behaviours such as stealing, lying, truancy, and spending time with antisocial peers (Patterson et al., 1992).

The undersocialised child's tantrums and refusals affect not only the behaviour of parents but also the behaviour of teachers. Both tend to become discouraged (because nothing seems to work). They tend to abandon their attempts to set and enforce limits (in order to avoid further confrontations and fights with the child). Parents tend to abandon their attempts to get the child to help around the house (because it is easier to do the household tasks themselves). And teachers tend to abandon their attempts to get the child to complete the tasks which other children are required to complete (e.g. Carr, Taylor & Robinson, 1991).

By degrees, antisocial children train their parents and their teachers to avoid requiring task completion, to avoid setting limits, to avoid enforcing rules, to avoid disciplinary attempts and to avoid further attempts to get them to change their behaviour. This steady erosion of the confidence and the disciplinary practices of key adults results in a child who is given few responsibilities and who, as a consequence, is deprived of the opportunity to learn many of the skills and personal responsibilities which the normally developing child tends to acquire as a matter of course.

10. The influence of deviant peers and the polishing of antisocial skills

Peers play an important role in the child's development and many studies have found a strong correlation between membership of deviant peer groups and delinquency (e.g. Fergusson & Horwood, 1996). Rejection by normal peers tends to result in the antisocial child seeking out peers who are most like themselves. The process begins in the primary school years and accelerates during the intermediate and high school years (Snyder, 2002). The aggregation of deviant peers into their own social groups appears to be a function of (a) a
lack of parental monitoring, (b) rejection from peer groups of normally developing youth and (c) academic failure (Dishion, Patterson, Stoolmiller, & Skinner, 1991).

Adolescents who spend time together function both as models and as reinforcement agents for one another such that their behaviour becomes increasingly similar. Deviant peers also provide opportunities to engage in specific delinquent acts (Patterson et al., 1989). Studies of deviant peer group processes suggest that deviant peer interactions are characterized by rich schedules of positive reinforcement for deviant behaviour (Patterson, 2002b).

Increasing amounts of time with antisocial peers becomes possible because parents have largely given up trying to monitor their child's whereabouts. “We have found that most parents of antisocial children have little information about where their children are, who they are with, what they are doing, or when they will be home.... We tried to teach the parents to track their children more carefully. Typically our attempts to improve the level of tracking in the home were met with considerable resistance by the children” (Patterson et al., 1992, p. 63). The young teenager would assert that the parent had no right to ask for such information and the parents avoided asking for such information in order to avoid yet another confrontation with their child.

Association with deviant peers reinforces and strengthens both existing and new antisocial behaviours – including experimentation with drugs, stealing, cheating, lying, truancy, joy riding and risky sexual behaviour (Dishion et al., 1995).

As antisocial children progress along the antisocial developmental trajectory, their behaviour may result in their exclusion from school or their selection into special facilities containing large concentrations of antisocial youth. The child may run away from home, or be taken from the home, or be thrown out of home. During adolescence then, the child's last remaining opportunities to learn the social skills needed for adult living may be abruptly terminated. As these children are selected into increasingly deviant social groups it is hardly surprising that their behaviour and their attitudes become increasingly deviant. “Adding social failure and coercion training in the peer setting to that already established in the home, and then adding deviant peer selection and the deviancy training processes occurring in friendships among antisocial individuals are like hooking second and third engines to the train of antisocial development - it becomes much more powerful and attains greater momentum” (Snyder, 2002, p. 121).

11. Coda

As adolescents make the transition to adulthood, to intimate relationships, and to employment, the tendency to resort to coercion and aggression often takes on new forms. Individuals with histories of antisocial behaviour tend to fall into patterns of substance abuse more often, to offend more often, to be arrested more often, to divorce more often, and to engage in more frequent spousal abuse. They also tend to use the same abusive parenting practices which they experienced as children thus increasing the likelihood that antisocial behaviour will be transmitted across successive generations of the same families (Capaldi, De Garmo, Patterson & Forgatch, 2002; Huesmann, Eron, Lefkowitz & Walder, 1984).
Patterson argues that socialisation of the young is a task which can be accomplished only while the young are young. If parents and teachers do not adequately socialise the children in their care, then no one else ever will. This is because only a parent loves the child enough to go through the thousands of trials in which the child learns when coercion can and cannot be used to get one’s own way. “Later, his wife or his psychoanalyst may give him love and support equal to that given by his mother, but they cannot teach him at a molecular level those subtle skills that he should have learned prior to age 6 or 7. Parental power, relative to a pre-school child, is simply overwhelming. Social workers, friends or therapists do not possess an equivalent means for punishing adolescent and adult deviant behaviour. They may help the adolescent to feel better about his antisocial behaviour but they cannot stop the behaviour in the sense that a parent can” (Patterson, 1982, p. 220).

References


Enquiries should be addressed to the author at: john.church@canterbury.ac.nz