Huesmann, L.R. & Podolski, C.L. (2003). Punishment: A psychological perspective. In S. McConville (Ed.), *The use of punishment*. Portland, Oregon: Willan Publishing.

Chapter 2

Punishment: a psychological perspective

L.R. Huesmann and C.L. Podolski

Punishment is a word that evokes a variety of vivid images, but these are quite different for people from different disciplines. To the lawyer, judge and human-rights activist, they may be images of imprisonment, torture and the execution of criminals; to the statesman, they may be images of war, retribution and the occupation of countries; and to the parent, they may be images of spanking or 'grounding' of children.

It is these last images that we shall address primarily in this chapter. While disciplining and punishing children has been a topic of discussion for social philosophers and humanists for centuries, the effects of punishment on children and the role of punishment in changing behaviour have only been examined from a scientific perspective since early in the twentieth century. In 1911 E.L. Thorndike first identified a role for punishment in the acquisition of behaviour with his law of effect based on animal learning. Since then punishment has developed from a topic of interest for animal behaviourists, to a topic of interest for all learning theorists, to a topic of interest for developmental psychologists, criminologists and policy-makers. And, as the role of early child rearing and early learning experiences in the development of antisocial and aggressive behaviour has become more apparent, the role of punishment in suppressing or stimulating aggressive and antisocial behaviour has become more controversial. One theme of this chapter, in fact, is that punishment often has *both* stimulating and suppressing effects on aggressive and antisocial human behaviour, and the long-term consequences of punishment may not always turn out as intended. A related theme is that many common assumptions that the public and criminal justice authorities make about the effects of punishment are not

well supported by psychological analyses of punishment.

The development of antisocial behaviour

Before turning to a discussion of punishment, however, we must briefly review some conclusions from the last half-century of research on human antisocial and aggressive behaviour. Four important points need to be emphasised.

First, as evidenced in research by Len Eron in 1960, Jerome Kagen in 1988, and Richard Tremblay more recently, antisocial aggressive behaviour has been found to emerge early in life, often before age 5 or 6; and early aggressive behaviour is about the best predictor we know of later aggression and antisocial behaviour in adolescence and adulthood. Although not every aggressive child grows up to be an antisocial adult by any means, multiple longitudinal studies have shown that the more aggressive child generally grows up to be the more aggressive adult.

Second, aggression is most often a product of multiple interacting factors, including evolutionary forces and genetic predispositions, environment/genetic interactions, brain trauma and neuro-physiological abnormalities, abnormal arousal or hormone levels, family violence, cultural forces, media violence, poor parenting, environmental poverty and stress, peer-group identification, social control, and other factors. One can seldom find any single factor that explains more than a small portion of the individual variation in propensity to behave aggressively. Severe aggressive and antisocial acts are most likely to occur only when there is a convergence of multiple predisposing and precipitating factors.

Third, early learning and socialisation processes play a key role in the development of habitual aggression. Aggression is most likely to develop in children who grow up in environments that reinforce aggression, provide aggressive models, frustrate and victimise them and teach them that aggression is acceptable.

Fourth, the stability of individual differences in aggressiveness over time and across situations appears to be due, to a substantial extent, to the role that cognitions – that is beliefs, attitudes, perceptions, memory and ways of thinking – play in controlling one's own social behaviour. As Rowell Huesmann and Kenneth Dodge have both argued, the empirical evidence is compelling that social behaviour, including aggressive behaviour, is mediated to a great extent by the scripts and beliefs that one acquires while growing up and by the biases in

perceiving and understanding one's environment that one acquires while growing up. Contrary to the viewpoint of early social learning theorists, it is not simply how a child's environment stimulates or rewards the child that is important, it is how the child interprets and encodes what happens to the child and what the child observes others doing that has lasting effects.

Psychological theory and the learning of aggressive and antisocial behaviour

Punishment, whether delivered by parents to children or by society to adults, may have multiple purposes, but one purpose almost always is to teach the perpetrator not to engage in antisocial behaviour. Given the evidence summarised above that antisocial behaviour is to a great extent learned, it is not surprising that we should believe that antisocial behaviour can be unlearned with the right punishment. However, the theory of how behaviours are learned and unlearned is much more complex than many assume.

Most psychologists agree that there are two major ways in which behaviours are learned or unlearned: learning by doing (called *enactive learning*) and learning by imitation (called *observational learning*). Both have a part in the effects of punishment, and both must be understood if the effects of punishment are to be understood. Let us begin with enactive learning – 'learning by doing'.

There are two types of enactive learning: *classical conditioning* and *operant conditioning*. In classical conditioning a stimulus (e.g. food) that elicits a natural response (e.g. salivation) is paired repeatedly with some other stimulus (e.g. a bell) until the bell alone produces the response. Anger towards particular people or in particular situations can easily be learned this way. Suppose you have been repeatedly frustrated and irritated by your experiences with car salesmen. Then just entering a car salesroom may engender anger in you. Similarly, the sight or even smell of someone who has treated you badly may stimulate anger because of this process.

In operant conditioning, on the other hand, some behaviour that is emitted by a person becomes more or less probable in the future because of the consequences that follow. The principle of operant conditioning is that the consequences the person experiences after doing something influence the chances that the person will do it again. Thus, technically, a child who hits someone and gains nice rewards (e.g. the esteem of peers, a toy over which the child was fighting) is more likely to hit someone

again in the same situation. Similarly, in theory a child who hits someone and is hit back harder and is hurt and experiences only unpleasant consequences should be less likely to hit someone again. This latter case is certainly an example of *punishment*. We will discuss the theory of punishment from a psychological perspective in much more detail below. For now, the important point is that as far as operant psychologists are concerned, punishment of a person involves either doing something aversive to the person or stopping something nice from happening to the person.

The cognitive and neurophysiological changes involved in both classical or operant conditioning are well understood, and both types of conditioning follow fairly invariant laws. Many kinds of conditioning, particularly conditioning of emotions and reflexes, occur automatically and cannot be 'resisted' very well. Over the past 30 years, however, a view has emerged among psychologists studying aggression that classical and operant conditioning are not nearly as important in the development of human aggressive behaviour as is observational learning.

The concept of observational learning of social behaviour was first specified in detail by Albert Bandura in 1977. The basic idea is that people *encode* in memory what they see others do in a particular situation, and then, in similar situations, they tend to do the same thing. Rowell Huesmann, drawing on Robert Abelson's earlier work, has outlined a detailed model of how *scripts* for social behaviour, *normative beliefs* about what is appropriate social behaviour, and *attributions* about what others intend are acquired in this way. A script is a sequence of behaviours and expected responses by others that is used as a guide for how to behave. A normative belief is a belief about what is 'OK' for the person to do. An attribution of intent is a judgement about what the intentions are of other people, e.g. hostile or benign? A key concept is that people are more likely to remember and use scripts, beliefs and attributions that are consistent with their current mood and thoughts. Consequently, an aggressive boy who finds himself in a threatening situation with peers or parents is more likely to activate schemas – sets of beliefs about a particular type of situation – that cause him to interpret non-hostile acts as hostile (e.g. looking at him as disrespect), to retrieve beliefs that aggression is normative (e.g. 'you've got to retaliate against someone who disrespects you,' and to retrieve scripts for solving the problem with aggression (e.g. 'punch him before he punches me').

Substantial evidence has accumulated over the years that observational learning is extremely important in explaining individual differences in human aggressive behaviour. The discovery of 'mirror

neurons' in primates by Vittorio Gallese and Giacomo Rizzolatti has provided a neurological basis for early imitation and Andrew Metzoff has shown that it occurs in infants. A variety of research studies conducted in the past 20 years have shown that children learn aggressive scripts and beliefs from observing others behave aggressively and that they develop a hostile attributional bias (i.e. see hostility where there is none) from viewing a lot of violence. Observational learning is as fundamental and inevitable a learning process as either operant or classical conditioning, but it seems to be more important than either of them in the development of aggressive and antisocial behaviour.

In summary, according to learning theory, antisocial behaviour and the attitudes and beliefs supporting antisocial behaviour are most likely to develop when a child is surrounded by 'models' (in real life and in the media) who engage in antisocial behaviour, when antisocial cues (unlearned cues such as guns; or learned cues such as oppressive authority) are common in the child's environment, and when the child receives reinforcements for behaving antisocially (such as obtaining tangible goods).

Principles of operant conditioning and punishment

Given this background, let us now turn back to a more detailed discussion of the theory of punishment. As we said above, punishment is viewed as the presentation to a person of something aversive or the removal of something pleasant. The principles of operant conditioning explain the relation between a person's behaviour and the antecedent and consequent events like punishment. Consider the following scenario:

> A 10-year-old boy walks into a shop and sees his favourite candy bar on display. He grabs it, runs out of the shop, and starts to eat it. It tastes really good. But a policeman has seen him run out of the shop and grabs him and takes him to the police station.

The learning theorist would interpret this scenario as follows. The antecedent event is 'the boy seeing the candy bar on display'. The behaviour is 'shoplifting the candy bar'. The first consequent event is 'getting to eat the candy bar'. The second consequent event is 'being detained by the police'. Getting to eat the candy bar is a favourable consequence; being detained by the police is an unfavourable consequence.

Now the fundamental principle of operant conditioning is that *emitted behaviours increase in frequency if the behaviours are followed by favourable consequences and decrease in frequency if they are followed by unfavourable consequences.* Favourable consequences occur either when a rewarding stimulus happens, e.g. eating the candy bar *(positive reinforcement)*, or an aversive event is ended or avoided *(negative reinforcement)*. Both of these outcomes increase the likelihood of the behaviour recurring. Unfavourable consequences happen either when an aversive event occurs, e.g. the policeman apprehending the boy, or a rewarding event is stopped or prevented. Both of these later cases are called *punishment*, and both should reduce the likelihood of the behaviour recurring.

In the above example, the favourable consequence of getting to eat the candy bar has two favourable parts. First, the boy is rewarded by the good taste of the candy bar he eats. This is positive reinforcement. The boy may also have his hunger reduced by eating the candy bar. This is negative reinforcement – the termination of aversive stimulation, i.e. hunger. Both increase the probability that the child will shoplift candy bars again. However, then the policeman catches the boy running away and detains him. This is punishment by presenting an aversive event, and it should decrease the probability of the behaviour recurring. The policeman could also simply refuse to let the child eat the rest of the candy bar. That would be punishment by preventing a rewarding event.

For consequences to influence the behaviour, they must be *contingent* on the behaviour, and the person must detect the contingency (though not necessarily consciously). In the above example, detaining the boy might not have much effect on his behaviour if he did not connect being detained with shoplifting, i.e. if the police regularly detained him for little reason.

In some cases, a particular consequence is dependent on a certain antecedent. For example, if the policeman is not in sight, the child does not need to worry as much about a policeman detaining him. Antecedent events that signal whether or not a reward or punishment will be delivered are called *discriminative stimuli*. Research has shown that increases or decreases in behaviour due to reinforcement and punishment are most likely when the discriminative stimuli that were present during the initial reinforcement or punishment recur.

It is also true that behaviours generalise to similar situations in proportion to how similar the situation is to the discriminative stimulus. This is known as *stimulus generalisation*. For example, if a boy has successfully shoplifted in one shop, he is more likely to try it in another shop that is similar to the first one. Operant conditioning also produces *response generalisation* – that is, the frequency of behaviours similar to the

reinforced or punished behaviour also changes. In the above example, the shoplifting boy who is reinforced will become more likely to shoplift other items besides candy bars.

One might conclude from the above discussion that punishment is the only way one can reduce the frequency of a behaviour according to the laws of operant conditioning. Not so. Probably the most important operant learning principle about how to eliminate undesirable behaviours is that a behaviour that is no longer reinforced decreases in frequency. Such a process is called *extinction* by psychologists. The boy will stop shoplifting the candy bars if they don't taste good to him or if he does not get to eat them regardless of whether he is punished or not. Furthermore, if a *competing behaviour* is reinforced, e.g. playing football instead of hanging out at the shop, the extinction will occur more rapidly. This is called *counterconditioning* and is the basis for the most successful and lasting uses of operant conditioning to change behaviour. The best way to eliminate a behaviour permanently is to reinforce an incompatible behaviour until it occurs regularly.

Finally, we must mention the important law of *secondary reinforcement and punishment*. This law says that anything, however neutral in meaning initially, that is repeatedly paired with reinforcement or punishment acquires reinforcing or punishing properties itself. Thus, for the boy who is repeatedly beaten by his father, the mere presence of the father and any gestures the father might make that have been associated with beating the boy become very punishing to the boy in themselves. Similarly, a boy who has been praised many times in school should begin to feel pleasure simply from being in school as the school becomes a secondary positive reinforcer.

Problems with using punishment to modify behaviour

While this explanation of operant conditioning and punishment seems fairly straightforward, there are numerous complexities that cloud the picture when one tries to apply these principles to change children's, adolescent's or adult's behaviour. It is not that the laws are wrong; the laws of operant and classical conditioning are as immutable as anything we know about human neurophysiology and psychology. Rather it is that humans are complex information processors whose behaviours at any time depend on perceptions, memories, cognitions, motivations and thoughts of which the rest of us are unaware. This leads to a variety of problems.

Identifying what is rewarding and aversive

First, it is often difficult to identify what are all the relevant rewarding events and aversive events that may be affecting the person whose behaviour we would like to change. For example, consider a boy who is acting out in class. The teacher would like to change his behaviour and decides to punish the boy by speaking to him sharply. But it may be that the boy really craves attention from the teacher, and the attention that the teacher gives him when she chastises him is more of a reinforcement (i. e. the presentation of a reward) than the chastisement is a punishment. Then chastising the boy only increases the frequency of his acting out.

Importance of cognitive interpretations

Second, as described above, and as shown in a variety of studies, aggression and other social behaviours are controlled by a complex series of perceptions, beliefs and cognitions, and learned contingencies (not necessarily conscious). Every social situation triggers memories of other situations, ideas about what to do, and thoughts about what is good or bad. A useful concept posed in psychology is that of information processing (terminology borrowed from computer science in order to explain what occurs cognitively as a person perceives and responds to his/her environment). Another useful term is that of 'cognitive schemata', which refers to the beliefs and ideas activated by a situation (using a computer analogy, it is as if a specific floppy disk were inserted and a data file of information relevant to the situation was brought onto the screen). Although technical terms, these concepts are useful in understanding how cognitions and cognitive interpretations of events impact on behaviour.

The process of interpreting a situation – a person's processing and interpretation of antecedent and consequent events – goes far beyond simply noting if events are favourable or unfavourable. As a result, the rewarding and punishing effects of contingent consequent events may be very small or even opposite to what was intended. When punished, people ask themselves why they were punished or rewarded. They make attributions about the intentions of whoever is doing it. They attend selectively to cues in the environment that are consistent with their beliefs, cognitions and scripts. In the example about the chastised school boy who craves attention, even if he recognises the teacher's displeasure, he might attribute it to simple dislike unrelated to his behaviour. Should this be so, the chastisement will not change the frequency of the behaviour. Similarly, school may not become a

secondary positive reinforcer for the boy who does very well in school if being in school cues high anxiety over fear of failure.

Alienation and negative self-schemas/self-concepts

The ways in which one perceives and conceptualises oneself is called a self-schema or self-concept (that is, one's sense of self in terms of attitudes, beliefs, expectations, etc.). An individual's self-schema or self-concept is an important kind of cognition for regulating social behaviour and is closely related to normative beliefs about what is appropriate. An adolescent boy who believes he is 'bad' and feels disconnected from society is likely to behave aggressively. Unfortunately, being habitually punished, regardless of how it changes behaviour, is likely to make you start to believe that you really are bad and an outcast from society. As D.J. Bem's self-perception research has shown (1967), people make attributions about the kind of person they are from what they observe happening to them. These attributions then become beliefs that influence future behaviour: regularly punishing a boy because you believe he is bad can make that belief a self-fulfilling prophecy.

Multiple secondary reinforcers and punishers

The laws of secondary reinforcement and secondary punishment mean that by the time a child is just 7 or 8 years old, a large number of originally neutral stimuli may have acquired reinforcing or punishing properties of which most others are unaware. Just the sight of some people or things may be punishing or reinforcing. School may have become punishing for some kids. Aggressive peers may have become reinforcing for other kids. Being in control, being out of control, being controlled by others, being touched, not being touched, being stared at, not being stared at, men, women, older children – any of these things may have acquired reinforcing or punishing properties of their own, and it is virtually impossible for an observer to understand these complexities. As a result, situations intended to be reinforcing may turn out to be punishing and vice versa.

Suppression versus extinction

Punishment *suppresses* behaviour, but it does not extinguish it. In accord with the laws of operant conditioning, even effective punishment that suppresses an undesirable behaviour may only suppress it when a discriminative stimulus – an antecedent associated with a particular consequence – is present, signalling that punishment is likely. The

hungry adolescent who wants to steal a candy bar from a shop may not steal when a cop is in the store because he has previously been caught and punished by the cop, but, as soon as the cop leaves, he may well steal again. If punishment for a behaviour is only likely to be delivered when certain detectable cues are present, and if reinforcements for that behaviour are always delivered, a person will learn to suppress the behaviour only in the presence of the cues. Suppression of a behaviour is not the same as extinction of a behaviour. Lack of reinforcement extinguishes a behaviour, particularly if it is coupled with reinforcement of a competing incompatible behaviour. If the little girl climbing on the kitchen counter to get a biscuit no longer finds any biscuits there and at the same time is given a biscuit after playing on the floor without climbing, the response of climbing will extinguish.

Stimulated aggression and escape

Punishments that involve the presentation of aversive events (e.g. beating, spanking, confinement) may stimulate or teach other undesirable behaviours even while the original undesired behaviour is suppressed. If a man is beating or spanking you, running away from him or aggressing against him can stop the punishment. Furthermore, if the escape succeeds or fighting back stops the punishment, then escape and fighting are reinforced and become more likely in the future.

Emotional reactions, and conditioned hostility and fear

Harsh punishment of a child frequently produces strong emotional reactions in that child even while the undesired behaviour is being suppressed. Hostility, fear, screaming and crying are not unusual responses to harsh punishments. One problem is that these emotional reactions may interfere with the learning of competing behaviours and the extinction of the undesirable behaviour. We know that the highly aroused, emotionally upset child cannot learn new complex scripts for social behaviour very easily. Another problem is that we can expect the hostility and fear that one experiences while being punished to become classically conditioned responses to all sorts of characteristics associated with the punishment – the person, the setting, the institution. This may make future positive reinforcements very difficult to deliver.

Punishments compatible with undesirable behaviour

The wrong choice of punishment may not even suppress the undesirable behaviour because that behaviour is completely compatible with the

unconditioned response to the punishment. For example, spanking a child more often than not probably causes the child to cry. Therefore, spanking is unlikely to be an effective punishment for suppressing crying. Yet, many parents still try to suppress a child's crying by spanking or otherwise harshly punishing the child. Similarly, a policeman's beating of an adolescent because he ran away from the policeman is unlikely to suppress running away because the punishment of beating stimulates escape, which is compatible with running away.

Reactance and counter-control

Unlike many animals, humans often recognise when another person is trying to manipulate their behaviour with operant conditioning, i.e. by providing reinforcements or punishments. The source of reinforcement and punishment is usually very clear whether it is a parent, a peer, a spouse or authorities. If a parent offers to give his teenage son the use of the family car for the weekend if the son cleans his room, the son will be aware that his behaviour is being manipulated. If a parent says he will deny his daughter her inheritance if she marries a particular man, the daughter will be aware that her behaviour is being manipulated. The problem is that most humans have a strong aversion to being controlled. This motivation sometimes leads them to react against control and resist the direction in which their behaviour is being pushed, even if it would be in their best interests to go along. Who has not experienced a strong urge not to buy something, e.g. a car, that they really liked, after someone else (the salesman) told them they really should buy it. This is *reactance*. It is particularly a problem when someone tries to use punishment to suppress aggressive or antisocial behaviour. It may well be in the best interest of a person being controlled to stop the behaviour, but his/her resistance to being controlled may lead them even to increase their aggressive or antisocial behaviour causing a *boomerang* effect.

One of the reasons why reactance may be a common phenomenon is that it frequently causes the manipulating person to stop trying to control the other person's behaviour. Suppose a father shouts at his teenage son when he comes home once late for dinner. The son, who is usually pleasant and gregarious during dinner, reacts by being sullen during dinner and leaves right after dinner. This is repeated several nights with the son coming home late each night. Finally, the father gives up and says nothing. Now, suddenly the son is pleasant during dinner and comes home on time the next night. After that the son sometimes comes home late and sometimes on time, but the father never complains. What has happened here? The son in displaying reactance has managed

to condition his father not to punish him or try to control when he comes home for dinner. The son has punished the father for shouting at him by being sullen and has suppressed that behaviour in his father. Then the son reinforced his father for saying nothing by being pleasant and coming home on time. This is a good example of what is called *counter-control*. Generally, one can expect attempts at counter-control whenever one tries to use either punishments or reinforcements to overtly manipulate someone's behaviour. Of course, our societies and cultures are conditioning all of us all the time in subtle ways that escape our notice and therefore do not stimulate reactance or attempts at counter-control.

Observational learning of aggression

Finally, one must consider the problem that many punishments are themselves examples of aggressive behaviour and therefore can be expected to teach aggressive behaviour to the person being punished through observational learning. As noted above, observational learning is an extremely powerful process that shapes perceptions about others, scripts for social behaviour, and normative beliefs about how it is appropriate to behave. When a father beats his son to get him to stop doing something, the son may indeed stop doing it (suppression), but the boy is also encoding a script that says that a good way to get someone to do what you want them to do is to beat them. Such scripts readily generalise to other people and other situations. Boys who are beaten by their father because they disrespected their father could soon be expected to be beating peers who disrespect them. Observational learning occurs for the boy regardless of whether the target of the punishment is the boy or someone else around him. The husband who punishes his wife for disobedience by beating her is teaching his son that beating women is a way to make them obey.

The extent to which the child identifies with the person punishing him/her plays a complex role in this observational learning process. Certainly, the more a boy respects and identifies with the person punishing him, the more he is likely to encode the script for it. Also, the more the boy identifies with his punisher, the more he is also likely to interpret the punishment as a sign that he really had done something bad, and the more he is likely to suppress his behaviour. The bottom line is that for children who identify strongly with their parents, harsh parental punishment of aggressive behaviour is more likely to suppress aggressive behaviour, but is also more likely to teach children that harsh punishment is OK, at least 'when a child has been very bad'.

Generalised effects of punishment

So far we have discussed the effects that punishment has on someone who behaves in an undesirable way, but we have not attended much to the effects that punishment might have on the punisher or on other people who observe or are aware of the punishment. Yet these are important considerations for understanding the overall effect of punishment.

The first thing to realise is that the laws of conditioning and observational learning apply to the person or groups doing the punishing just as much as they apply to the person receiving the punishment. If, through punishing them, you get someone to do something rewarding for you or to stop doing something aversive to you, your punishing behaviour is reinforced. Therefore, one can expect you to punish more frequently. In other words, punishment that suppresses behaviour perpetuates punishment because it reinforces it. Unfortunately, this may happen even when the punishment is not really changing the behaviour but only suppressing it temporarily. Reinforcements that occur immediately after a behaviour are much more powerful than reinforcements that are delivered much later.

Harsh punishment may also serve the punisher because it is a socially acceptable way to act against the target of the punishment. A parent or teacher who has been frustrated and irritated by the behaviour of an antisocial person may feel a great aggressive drive towards that person. Punishing the child serves as an opportunity to realise that aggression in ways that are consistent with the parent's or teacher's normative beliefs about what behaviours are appropriate. The same analysis can apply to policeman or jailers who beat prisoners when they are particularly irritated. Their desire to take action against an irritating person may be as important a consideration in beating the prisoner as any desire to get them to change their behaviour. The problem is that using aggression to reduce frustration or irritation often works in such situations; so it is reinforced, and it perpetuates itself even if it does not change the behaviour of the child or prisoner. Aside from providing an opportunity to reduce frustration through aggression, punishment may also increase the punisher's sense of control or power. Just as being controlled by others is aversive and can stimulate reactance, feelings of being able to control others are reinforcing. Thus, getting someone to comply with your wishes through either punishment or reinforcement can be very satisfying and lead to the perpetuation of the techniques you used to gain compliance.

Let us turn now to a discussion of the effects of punishment on observers or third persons. As argued above, observational learning is an even more powerful force in shaping social behaviour than conditioning. Consequently, the observer is likely to learn both from what is happening to the punished person and from what the punisher is doing. Psychological theory is clear that the observer will learn more from the person with whom the observer identifies best. So, to the extent the observer identifies with the perpetrator who is being physically punished, the observer may learn to suppress the undesirable behaviour for which the perpetrator is being punished. On the other hand, to the extent the observer identifies with the punisher, the observer may learn how to suppress other people's undesirable behaviours with physical punishment, how to use punishment to gain power and control over other people, and how to reduce one's own frustration by acting aggressively towards others.

Harsh punishment often produces pain and emotional reactions by the punished child or person that make anyone watching, including the punisher, feel uncomfortable. An inevitable consequence of widespread exposure to painful punishment by the punisher, the punished person or an observer is a lessening of such emotional reactions. We say that the person has been *desensitised*. The emotional reaction one initially experiences deadens over time; in a sense, one becomes 'used to' the punishment in such a way that the punishment no longer evokes an emotional reaction. One simply does not feel the unpleasantness that one first did when confronted with such punishment. Consequently, the more a punishment is used, the more it tends to become acceptable. At the extreme this is the psychological process that allowed concentration camp guards eventually to feel little emotion while watching the inhumane tortures inflicted upon inmates.

One last effect on third persons that must be mentioned concerns *retribution*. In many cultures and societies the aggressive acts of antisocial individuals are seen as requiring retribution. The aggressive feelings stimulated in all of us by the frustrating and irritating behaviours of an antisocial person and our normative belief of 'an eye for an eye' combine to justify punishment. The normative belief of retribution may be invoked equally to justify spanking a child and executing a murderer. The point we want to make here concerns the consequences of not punishing someone when such a strong belief is widely held. Within a family, failure to punish may stimulate disharmony between the parents. Within a society with a strong retribution belief, however, failure to punish may leave a strong residual drive for revenge unfulfilled. The coupling of this drive for revenge and

the normative belief that retribution is required is a recipe for vigilantism in society. When a society dispenses with punishment but does not change the belief that 'retribution is required', people are likely to take punishment into their own hands.

Psychodynamic approach to punishment

Psychodynamic theory[1] also offers a mixed view of punishment – a source of both positive and negative effects. The positive and negative effects are different from those hypothesised by learning theorists, however, and are assumed to be innate and less dependent on variations in environment. Psychodynamic writers assert that punishment is not strictly negative. Indeed, according to one theory proposed by Freud, the superego – a part of oneself which attempts to modulate one's impulses in order to coincide with societal and parental restrictions – is formed in part due to the child's internalised parental prohibitions. In this way, the psychodynamic view of punishment is more optimistic than the social learning perspective where punishment is seen as mostly a means through which undesirable behaviours are temporarily suppressed. Indeed, according to psychodynamic theory, castration anxiety (the fear of punishment through castration) leads to repression of oedipal wishes (the wish for intimacy with one's opposite-sex parent to the extent that the child has an unconscious emotional fantasy that the other parent be eliminated as a source of competition), and the subsequent structuring of the superego. A recent study group – the Kris Study Group of the New York Psychoanalytic Institute – reported agreement that such fear of punishment contributes to the formation of the conscience. Although psychodynamic theorists are still debating the mechanisms through which this occurs, it appears that, according to psychodynamic theory, punishment may be an important factor in the development of conscience. For instance, D. Milrod (1994) posits that the source of the punishment (internal vs. external) rather than the distinction between fear of punishment and guilt distinguish between children in different stages of conscience formation.

Psychodynamic theory does, however, postulate negative effects of punishment. For example, a 'superego pathology' is seen to account for conduct disorders. This form of superego pathology results from negative childhood experiences (which may included harsh punishment and abuse). The child internalises the negative qualities of the 'cruel, neglectful, and unloving' caretakers, viewing oneself as 'evil and meriting only punishment and reproof'.

Empirical studies investigating the role of punishment in child development

Given this theoretical background it is easy to see why two questions have dominated the past 25 years of child development research on children's punishment and antisocial development:

1 Is or can punishment be an effective tool in modifying children's behaviour and in reducing the frequency of aggressive behaviours so that the likelihood of adolescent and adult antisocial behaviour is reduced?
2 Does punishment produce deleterious consequences for the punisher, observers and the punished child, including, in particular, increasing the chances of habitual aggressive and antisocial behaviour developing in adolescence and young adulthood?

During the last 30 years over 250 studies have been conducted in order to investigate the relation between children's punishment and aggressive and antisocial behaviour. These studies have included the investigation of parenting style and self-esteem, spanking and aggressiveness towards peers, and parental discipline. The studies have investigated parenting of non-compliant children of various ages including young toddlers and older children, and have also examined short-term effects of various punishment procedures as well as long-term or longitudinal effects. While many of the studies have investigated parental punishment and aggressive behaviour directly, some of them have focused on correlates of antisocial and aggressive behaviour such as identification with the punisher and development of guilt and conscience.

Taken as a whole, these studies have suggested that punishment can be used successfully to manage children's behaviour, but that it may also have deleterious short-term and long-term effects on behaviour. Three important types of studies provide this evidence: true experimental studies; cross-sectional correlational studies; and longitudinal studies. True experimental studies manipulate conditions between an experimental and control group so that the only difference between groups is the kind of punishment, thus allowing cause easily to be discriminated from effect. Cross-sectional studies examine whether certain characteristics, e.g. being punished severely and behaving aggressively, tend to occur together more than one would expect due to chance. Longitudinal studies also examine natural factors; however, rather than looking at immediate relations, longitudinal studies examine relations over time.

Probably the best summary of this empirical research was published very recently by Elizabeth Gershoff (2002). She used a technique called meta-analysis to combine the sizes of the effects found in 88 of the most relevant empirical studies over the past 60 years. She concluded that, while corporal punishment of children by parents did produce immediate compliance by the child, it also had many significant negative consequences associated with it. These included increased aggression, decreased moral internalisation of social standards, decreased quality of relationship with the parents, decrements in mental health and increased risk for later antisocial and criminal behaviour, later poor mental health and later abuse of their own children. However, a number of distinguished researchers in the area, including Diana Baumrind, Robert Larzelere and Phil Cowen (2002) have replied that one must consider studies separately because many mix together different kinds of punishment ranging in severity. Therefore, let us examine some of the specific empirical studies on punishment.

Managing behaviour problems

Many Americans use punishment in order to instruct their children and correct problem behaviours. In a 1979 study by J.S. Solheim, it was reported that 81 per cent of American parents used corporal punishment as a method of disciplining their children. Also, according to a 1995 Gallup Poll, many parents report using corporal punishment with children under 5 years of age. Use of corporal punishment is also generally supported by medical professionals. A report by D.A. Trumbull presented to the American Academy of Pediatrics in 1995 concluded that discipline is an important part of a child's development and that proper use of spanking has positive short-term and long-term outcomes. In a 1992 survey of 800 family doctors and 400 paediatricians, K.F. McCormick found that 70 per cent of family doctors and 90 per cent of paediatricians supported the use of corporal punishment. In general, corporal punishment is viewed as an effective and sometimes necessary means of discipline. However, research supporting the effectiveness of corporal punishment in changing children's antisocial behaviour is not as strong as this consensus might suggest.

It is certainly clear from well-controlled, randomised experiments that spanking and similar punishments will suppress the behaviours that they are intended to suppress when everything else is controlled. Experimental studies with clinic-referred children have shown successful short-term effects of punishment. A number of studies have shown that 'timeout' punishment reduces immediate oppositional

behaviour in children. 'Timeout' involves removing the child from his/her current activity and forcing the child to sit quietly in isolation. Timeout combined with spanking has also been shown to be effective in increasing compliance in young non-compliant children. These studies suggest that punishment can reduce problem behaviours in children in the short term. However, they also indicate that timeout is about as effective as spanking with young children. Most studies indicate that corporal punishment is most effective when used in a very defined manner. In treating children who have clinically diagnosed behavioural disorders, very specific strategies that use punishment have been successfully employed by psychologists to modify their disruptive behaviour. A variety of detailed guides have been developed by psychologists about how to optimise the chances that punishment will actually suppress the behaviour it is intended to suppress. The problem is that in the real-world applications by parents and teachers (as opposed to the therapeutic applications by professionals), punishment is seldom applied in such a considered manner and does not always suppress the undesirable behaviour. For example, C. Madsen and colleagues (1970) tell the story of a teacher who shouted 'sit down' at children who got out of their seats in such a way that the children she shouted at got out of their seats more.

In understanding the likely effectiveness of using corporal punishment, the entire parenting style needs to be taken into consideration. In experimental studies, the use of corporal punishment can be defined and administered according to experimenters' guidelines; however, in understanding actual use of corporal punishment outside of a laboratory environment, other parenting characteristics are also important. For instance, in a study of parenting styles, Diana Baumrind (1971) found that both parents who are authoritarian and parents who are authoritative use corporal punishment but use it differently and with different effects. A parent with a so-called authoritarian style uses withdrawal of love, and stimulation of fear in conjunction with corporal punishment; whereas a parent with a so-called authoritative style uses reason and reinforcement in conjunction with corporal punishment. Corporal punishment was found to be the preferred method of punishment for both kinds of parents but was only effective in changing children's behaviours for the authoritative parents. It is clear that overall parenting style is an important moderator of the effectiveness of punishment on children.

The bottom line is that, despite the clear short-term utility of punishment in suppressing behaviour, whether or not the undesirable behaviour finally extinguishes and is replaced by a more desirable

behaviour depends on many other factors affecting the child's learning. Most parents, teachers and even juvenile authorities are not equipped to disentangle these factors. As a result, the long-term application of punishment may, in fact, make the acquisition of better behaviours less likely. For example, at least two studies (one by L. S. Benjamin and colleagues in 1971 and one by R. J. Butler and colleagues in 1988) have shown that harsh parental punishment of children who wet their beds lengthens the time it takes the children to learn control rather than shortening it.

Investigating the role of punishment in the development of aggression

While the above studies indicate that punishment can be an effective short-term behaviour-management tool, they also indicate that punishment can interfere with the learning of a new behaviour (for example, see bed-wetting examples). It appears that punishment is most effective as a way to interrupt and prevent a certain behaviour rather than as an effective method of teaching a new behaviour. Further, a large body of literature has now accumulated which shows that harsh physical punishment is associated with immediate or later antisocial behaviour in the child and adolescent. Of course, when one finds that punishment is related to aggressive behaviour, it is difficult to determine whether this relation is due to the fact that antisocial, aggressive children are punished more frequently or that the punishment increases the likelihood of aggressive, antisocial behaviour on the part of the child. In reviewing the studies, this point must be kept in mind.

Most of the evidence that suggests that punishment is related to aggressive behaviour comes from two sources: cross-sectional and longitudinal studies of parenting style and studies on the relation between physical abuse and antisocial behaviour. Two relatively short-term studies have examined the relation. In a study of 273 kindergarten children which investigated short-term effects, Z. Strassberg and colleagues (1994) found that physical punishment was related to a child's aggression toward peers. In a much larger national interview study with 3,780 mothers which investigated long-term effects, Murray Strauss and colleagues (Sugarman *et al.*, 1994) found that children whose parents used corporal punishment had worse behaviour two years later, even when controlling for initial antisocial behaviour. These studies confirm the findings of a variety of older and longer-term studies. Leonard Eron, Rowell Huesmann and associates, in a 1960 cross-sectional study of 800 third-graders, reported that children who were punished more harshly by their parents were more likely to be

nominated by their peers as aggressive, except for the children who strongly identified with their parents. Among the children who strongly identified with their parents as being aggressive, greater punishment by the parents was negatively correlated with aggression. When this sample was followed up ten years later at the end of high school, little relation was found between the youths' early punishment and their current peer-nominated aggression, but, when the sample was followed up again at age 30, a strong relation was found. Harsh parental punishment at age 8 was positively correlated with a male's self-reported serious aggression, his score on a personality test of aggressive tendencies, his number of arrests and convictions, his seriousness of arrests and convictions, his tendency to beat his spouse, and how harshly he punished his own children. However, when the influence of early aggression was removed statistically, this long-term relation disappeared, making it difficult to tell the extent to which the young boy's aggression or the harsh punishment he received started the cycle. Using data from a longitudinal study of 411 London boys in 1991, David Farrington was also able to show that harsh punishment at age 8 or 9 was one of the best predictors of early delinquency. Similarly, also in 1991, Joan McCord, in reviewing the records of 130 families in the Cambridge-Somerville Youth Study, discovered that a father's use of physical punishment was a very significant predictor of his son's criminality years later, even when many other variables were controlled. As with the Eron study, neither of these studies unambiguously suggested the direction of the effect between harsh punishment by parents and aggressive and antisocial behaviour. Even when early punishment precedes much later aggression, it is possible that early aggression could have caused both the early punishment and the later aggression.

A few longitudinal studies have provided some data on the causal question. P. Cohen and J. S. Brook (1995) conducted an investigation of about 1,000 children whom they interviewed first between age 1 and 10 and then when they were between age 10 and 20. The authors did not use the most sophisticated analyses to pick apart the effects, but the analyses they did seemed to suggest effects in both directions – that is, that early antisocial behaviour was causing increased parental punishment and that early punishment was causing increased antisocial behaviour. In an analysis of data from a three-year longitudinal study of 6-year-olds and 8-year-olds in the US, Finland, Poland and Australia, Rowell Huesmann and Leonard Eron found that early harsh punishment and rejection of children as reported by the parents was correlated with later aggression as reported by their peers. Structural modelling analysis – which allows the examination of which factor leads

to the other – again suggested that the relation between harsh punishment and aggression is as much due to the aggressive behaviour stimulating harsher punishments as it is to the harsher punishments stimulating aggression.

The studies on abusive parenting reinforce the conclusion that harsh treatment of children and their later aggressive and antisocial behaviour are related. There can be little doubt that abused children grow up to be more likely to commit antisocial and aggressive acts. For example, in a study of a community pre-school sample by B. Weiss and colleagues (1992), children who had been hit by an adult hard enough to require medical attention as pre-schoolers were more likely to be aggressive years later, even controlling for child temperament, socio-economic status, and marital violence. Interestingly, in this study it was found that these abused children were also more likely to perceive other people's innocent actions as hostile (*hostile attributional bias*), and had memorised a greater number of plans for aggressive actions (*aggressive scripts*). This result is particularly interesting because it is consistent with the predictions of the information-processing model of aggression about what cognitions would be affected by harsh punishment. Nevertheless, on the basis of the studies existing to date, it is very difficult to conclude with certainty that the abusive parenting or harsh punishment are causing the antisocial behaviour.

Another important point to remember is that harsh punishment may have different effects depending on the cultural norms about appropriate punishment. In societies or subcultures where harsher punishment is the norm, the effects of harsh punishment on future behaviour may be quite different than if harsh punishment were abnormal. For example, a recent study by Gunnoe reported that spanking stimulated aggression in 4- to 7-year-old white American children but deterred aggression in 4- to 7-year-old black American children. While the results of studies like these may be open to alternative interpretations, they at least suggest that culture should be considered in drawing general conclusions.

The most plausible conclusion may be that parental discipline style has a major effect on the development or non-development of aggressive and antisocial behaviour, but that the use or non-use of punishment is just one element of that style. When used properly, within an appropriate overall child-rearing style, punishment may suppress antisocial behaviour. When used improperly, within the wrong style, it may stimulate antisocial behaviour. What is a 'wrong' style? 'Power-assertive' disciplinary techniques have been targeted as being associated with higher levels of aggression in children. Other parenting behaviours

that have been found to be correlates of aggressive behaviour include parental non-acceptance and parental permissiveness and parental inconsistency. As the Eron study mentioned earlier suggested, the child's perception of the parental message and acceptance or rejection of it have been found to be important factors that affect whether or not the child internalises the values which the parent is teaching through punishment. Finally, it has been found that early corporal punishment is not related to adolescent delinquency when controlling for parental involvement.

In 1973 Diane Baumrind suggested that some use of punishment combined with reasoning with children would effectively discipline them without adverse consequences, whereas harsh punishment combined with inconsistent and unreasoned discipline would stimulate aggression. More recently, Gerald Patterson has made a compelling case that lack of effective monitoring and disciplining of children's behaviour is more important in the development of aggressive and antisocial behaviour than punishment *per se*. The argument here is that children become antisocial and aggressive, not because they are punished, but because their parents do not attend to their behaviours, do not differentially reinforce pro-social and punish antisocial behaviours, are inconsistent and unpredictable in how they treat their children, and tend to engage in coercive interactions with their children in which antisocial behaviour is rewarded. Patterson argues that a microanalysis of family interaction patterns generally reveals that the parents have in fact conditioned their children to be aggressive through the misapplication of punishment and reinforcement.

What about empirical evidence supporting the psychodynamic view of punishment? Although few empirical articles on punishment from a psychodynamic perspective have been published, it appears that psychodynamic theory and corresponding clinical observations coincide with the above research which shows that punishment can both lead to and inhibit aggressive behaviour. Key factors appear to be: identification with the aggressor, source of punishment, timing in terms of the age of the child at time of the punishment, and intensity – although this appears to be confounded with abusive and neglectful parenting. In general, very young children who identify less with parents and who are punished more harshly seem more likely to respond aggressively and to internalise a poor self-concept than to internalise parental proscriptions against antisocial behaviour.

Implications for punishment of adult criminals

As is clear from the above review, most of the psychological research on punishment has been conducted with children or youth. Yet the laws of learning and behaviour modification that apply to children generally apply to adults as well. However, the likelihood of a successful application of punishment to *change* the behaviour of an adult is even more problematic for several reasons. Once scripts, beliefs, and attitudes are crystallised, they become much more difficult to change. Punishing an adult for a particular behaviour will probably suppress the behaviour temporarily, but changing the scripts, beliefs, and attitudes that support that behaviour while it is suppressed is much more difficult. As a result, once the punishment is removed, the behaviour is likely to return. In addition, adults are much more prone than children to react to punishment with alienation, aggression, reactance and counter-control. An offender who already feels alienated from society is only likely to feel more alienated from punishment and to have a more negative self-schema, making future antisocial behaviour more acceptable. If offenders can rationalise their behaviour as not completely their fault (e.g. a consequence of an impoverished childhood), their self-schema may not become so negative, but they are likely to feel manipulated by the punishment and to resist changing their behaviour (reactance). Finally, adults may find it more difficult to accept the power differentials that punishment entails (between the punisher and punishee) and therefore are even more likely to respond to punishment with anger and aggression.

Using punishment wisely

The conclusion would seem to be, then, that punishment may have some appropriate role in behaviour management, but it must be applied wisely. What exactly does that mean?

First of all, almost all theorists agree that punishment increases compliance and suppresses antisocial behaviour only for a short time after the punishment. For real behaviour change to occur or real extinction to occur, the reinforcements that had been provided for the antisocial behaviour must be identified and removed, and competing behaviours must be reinforced. This process is known as counter-conditioning. If it is to last, the behaviour change must be supported by

changes in beliefs and attitudes that support the behaviour. People must 'internalise' mechanisms that regulate behaviour so that in the absence of the threat of punishment, they will choose not to act aggressively – not because of threat of punishment, but because they agree with the behaviour which has been taught. For example, if the child sees a biscuit on the counter but does not reach for it even when his/her parent is absent (hence, in the absence of threat of punishment), this suggests that the child has 'internalised' the prohibition.

Second, the *contingency* of the punishment must be clear to the punished person and the punishment must be immediate in order to be effective. People must understand the connection between the behaviour and the consequential punishment. Unlike animals, whose behaviour will decrease following any punishment, people must perceive the contingency between the behaviour and the punishment. Furthermore, if the punishment is delayed, its effectiveness will be greatly diminished. Delayed punishments may well affect the frequency of other than the intended behaviour. Similarly, if punishment is to deter a person's behaviour before it happens, the person must be fairly certain punishment is going to happen, i.e. certain of being 'caught'. This requires monitoring and consistency that is hard to achieve either for a parent with a child or for the criminal-justice establishment with adults.

Third, if we don't want the punished person to become more aggressive as a result of being punished, at a minimum the person must understand the reasons behind the punishment – how it is contingent on an inappropriate script for behaviour that the person followed, how it is consistent with the normative belief that antisocial behaviour is wrong, and how it is not motivated by any particular hostility towards the person. Aggressive and antisocial behaviour emerge out of a complex interaction of environmental forces with the person's cognitions and information processing. One needs to focus as much on these cognitions and on what the person is observing as on the person's behaviours.

As Leonard Berkowitz, one of the pioneers in the study of aggression and violence, has said (1993, p. 314):

> Punishment works best ... when it is: [1] severe; [2] delivered quickly, before the (persons) whose behavior needs to be controlled can enjoy the pleasures that they might gain from the disapproved behaviour; [3] administered consistently and with certainty, so that there is little doubt that the disapproved action will have at least some negative consequences; [4] (when) attractive alternatives to the disapproved behaviour are available; and [5] (when) the (persons) who are punished have a clear understanding or the reasons for the discipline.

One cannot be sure that, even under these conditions, observational learning, desensitisation, reactance, stimulated aggression and other processes will not make antisocial and aggressive behaviour more likely after punishment: they may. All we can be sure of is that, if we use punishment, these rules seem to be the best for successfully modifying behaviour while minimising the chances of teaching someone to be more aggressive.

In conclusion, careful application of punishment may assist in changing children's antisocial behaviours, but there are serious possibilities that it may increase antisocial behaviours instead. With adults the likelihood that punishment will assist in changing behaviours is much more problematic. There are certainly other reasons for society delivering punishment to adults besides attempting to change their behaviour or to deter repetition of their antisocial behaviour. As discussed in this chapter, punishment may serve valuable purposes for the psyche of victims and in preventing antisocial behaviour by other persons who are not punished but learn from 'observing' the punishment. Punishment is an important means of preventing private action, which could be unlawful and destructive of law and order. Punishment by confinement also incapacitates offenders from committing harmful antisocial acts. However, from a psychological standpoint, there is little reason to believe that any kind of punishment by itself has much of a chance to change an offender's behaviour or to deter future offences unless it is viewed by the offender as an almost certain consequence of the behaviour.

Bibliographic review

A substantial body of published literature on the psychological theory behind punishment and the psychological effects of punishment has accumulated over the past century. In this chapter we have provided precise bibliographical citations for most of our assertions; so the reader can track down the original empirical study or theoretical argument on which our assertion is based. However, for the benefit of the reader interested in pursuing the general topic in more detail, we also offer here a guide to some of the most important sources concerning the major topics we have covered. Detailed citations for all of these sources are provided in the references at the end of this review.

Psychological theory and aggressive and antisocial behaviour

Perhaps the best starting point for the reader interested in the modern psychological theory of aggressive and antisocial behaviour (and punishment) is Berkowitz's 1993 textbook entitled *Aggression: Its Causes, Consequences, and Control*. Another fairly comprehensive treatment that is a little more technical is provided by Coie and Dodge in their 1997 paper in the *Handbook of Child Psychology*.

Learning theory, social learning and social cognition as applied to antisocial and aggressive behaviour

The foundations of modern learning theory are quite old, beginning with Thorndike's (1911) experiments on conditioning animals to behave in desired ways. However, it was not until the early 1960s that Eron and his colleagues (see Eron, Walder and Lefkowitz, 1971) and Berkowitz and his colleagues (see descriptions in Berkowitz, 1993) provided some of the first empirical evidence of the importance of learning in the development of aggressive and antisocial behaviour. It was also in the early 1960s that Albert Bandura first suggested that imitation may be as important as Pavlovian or operant conditioning in shaping social behaviour. His 1977 book, *Social Learning Theory*, and his 1986 book, *Social Foundations of Thought and Action*, summarise the thinking that led psychologists to revise their views of how social behaviour is learned. Then in the 1980s and 1990s psychologists combined these concepts into so-called social/cognitive models that viewed the human mind as an information processor that learned by constructing new 'software' based on observation and conditioning. Two good papers presenting this perspective are Huesmann's 1998 chapter in Geen and Donnerstein's *Human Aggression* book and Crick and Dodge's 1994 *Psychological Bulletin* article.

Psychological theory concerning the effects of punishment in child development

In addition to the books on learning theory mentioned above, Baumrind's 1971 paper in *Developmental Psychology* provides a popular perspective on how different styles of parenting interact with punishment to change its effects. It is well worth reading. Baumrind and Patterson (see Patterson's 1995 paper on punishment and coercion) both write eloquently about why harsh punishment and inconsistent discipline increase antisocial behaviour in adolescents. More generally, Kazdin's 1989 book, *Behavior Modification in Applied Settings*, provides an excellent review of the current theory of punishment's effects in modifying behaviour and how one can go wrong in using punishment.

Empirical studies of childhood punishment and adult antisocial behaviour

A large number of studies have documented the fact that harsh punishment and inconsistent discipline in childhood are often associated with antisocial behaviour later in life. The recent meta-analysis by Gershoff (2002) in *Psychological Bulletin* is a must-read review of the empirical work, as are the comment articles in the same issue. Anyone interested in this topic should also read Widom's 1989 *Psychological Bulletin* paper on how abusive punishment seems to be transmitted across generations. However, the detailed reports on longitudinal studies showing that harsh punishment is associated with increases in adult aggression may be more important. We would recommend the papers by Eron, Huesmann and Zelli (1991), by Farrington (1982), and by McCord (1991). Joan McCord's 1995 book, *Coercion and Punishment in Long Term Perspective*, provides a good summary of many studies. Finally, the papers by Murray Straus and his colleagues provide perhaps the strongest arguments about the negative effects of corporal punishment on children.

Note

1 Psychodynamic theory stems from a theory of psychology in which instincts and drives are viewed as innate forces which compete against societal norms in order to find expression. Two key drives – sex and aggression – are viewed as predominant forces influencing development. When a great deal of conflict exists and drives are inexpressible, emotional and behavioural problems may result. While these drives impact development, so also do significant early relationships. In essence, the emotion-laden interactions with parents and care-takers shape not only the child's behaviours but also his/her emotions and ways of relating. The term 'dynamic' indicates the importance of these early relationships and the ways in which individuals interact together in 'dynamic' relationship. Learning theorists view behaviour as determined environmentally through the various types of learning (enactive and observational learning). Although some theorists attempt to integrate these perspectives, they are generally viewed as being in opposition to each other.

References

Abelson, R.P. (1976) 'Script Processing in Attitude Formation and Decision Making', in J.S. Carroll and J.W. Payne (eds) *Cognition and Social Behaviour*, pp. 33–46. Hillsdale, NJ: Erlbaum.

Arles, H.R. and Garske, J.P. (1982) *Psychological Theories of Motivation*. Monterey, CA: Brooks/Cole.

Axelrod, S. and Apsche, J. (1983) *The Effects of Punishment on Human Behaviour*. New York: Academic Press.

Bandura, A. (1973) *Aggression: A social learning analysis*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1974) *Behaviour Therapy and the Models of Man*. New York: Holt, Reinhart & Winston.

Bandura, A. (1977) *Social Learning Theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1986) *Social Foundations of Thought and Action: A Social-cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. and Walters, R.H. (1959) *Adolescent Aggression*. New York: The Ronald Press Company.

Baumrind, D. (1967) 'Child Care Practices Anteceding Three Patterns of Preschool Behaviour', *Genetic Psychology Monographs*, 75, 43–88.

Baumrind, D. (1971) 'Current Patterns of Parental Authority', *Developmental Psychology Monographs*, 4(1, pt. 2), 1–103.

Baumrind, D. (1973) 'The Development of Instrumental Competence Through Socialization', in A.D. Pick (ed.) *Minnesota Symposia on Child Psychology*, Vol. 7, pp. 3–46. Minneapolis: University of Minnesota Press.

Baumrind, D., Larzelere, R.E. and Cowen, P.A. (2002) 'Ordinary Physical Punishment: Is it Harmful? Comment on Gershoff (2002)', *Psychological Bulletin*, 128, 580–589.

Bean, A.W. and Roberts, M.W. (1981) 'The Effect of Time-out Release Contingencies on Changes in Child Noncompliance', *Journal of Abnormal Psychology*, 9(1), 95–105.

Bem, D.J. (1967) 'Self-perception: An Alternative Interpretation of Cognitive Dissonance Phenomena', *Psychological Review*, 74, 183–200.

Benjamin, L.S., Serdahely, W. and Geppert, T.V. (1971) 'Night Training Through Parents' Implicit Use of Operant Conditioning,' *Child Development*, 42(3), 963–966.

Berkowitz, L. (1974) 'Some Determinants of Impulsive Aggression: The Role of Mediated Associations with Reinforcements for Aggression', *Psychological Review*, 81, 165–176.

Berkowitz, L. (1993) *Aggression: Its Causes, Consequences, and Control*. New York: McGraw-Hill.

Bernal, M.E., Duryee, J.S., Pruett, H.L. and Burns, B.J. (1968) 'Behaviour Modification and the Brat Syndrome', *Journal of Consulting and Clinical Psychology*, 32(4), 447–455.

Brehm, J.W. (1966) *A Theory of Psychological Reactance*. New York: Academic Press.

Butler, R.J., Brewin, C.R. and Forsythe, W.I. (1988). 'A Comparison of Two Approaches to the Treatment of Nocturnal Enuresis and the Prediction of Effectiveness Using Pretreatment Variables', *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 29(4), 501–509.

Cloninger, C.R. and Gottesman, A. (1987) 'Genetic and Environmental Factors in Antisocial Behaviour Disorders', in S.A. Mednick, T.E. Moffitt and S.A. Stack, (eds) The Causes of Crime: New Biological Approaches, pp. 92–109. New York: Cambridge University Press.

Cohen, P. and Brook, J.S. (1995) 'The Reciprocal Influence of Punishment and Child Behaviour Disorder', in J. McCord (ed.) *Coercion and Punishment in Long-term Perspectives*. Cambridge: Cambridge University Press.

Coie, J.D. and Dodge, K.A. (1998) 'Aggression and Antisocial Behaviour', in W. Damon and N. Eisenberg (eds) *Handbook of Child Psychology*. New York: John Wiley & Sons.

Crick, N.R. and Dodge, K.A. (1994) 'A Review and Reformulation of Social Information Processing Mechanisms in Children's Adjustment', *Psychological Bulletin*, 115, 74–101.

Day, D.E. and Roberts, M.W. (1983) 'An Analysis of the Physical Punishment Component of a Parent Training Program', *Journal of Abnormal Child Psychology*, 11(1), 141–152.

Dodge, K.A. (1986) 'A Social Information Processing Model of Social Competence in Children', in M. Perlmutter (ed.) *The Minnesota Symposium on Child Psychology*, Vol. 18, pp. 77–125. Hillsdale, NJ: Erlbaum.

Eron, L.D. (1987) 'The Development of Aggressive Behaviour from the Perspective of a Developing Behaviourism,' *American Psychologist*, 42, 435–442.

Eron, L.D. and Huesmann, L.R. (1984). 'The Relation of Prosocial Behaviour to the Development of Aggression and Psychopathology' *Aggressive Behaviour*, 10, 201–211.

Eron, L.D., Huesmann, L.R. and Zelli, A. (1991) 'The Role of Parental Variables in the Learning of Aggression', in D. Pepler and K. Rubin (eds) *The Development and Treatment of Childhood Aggression*, (pp. 169–188). Hillsdale, NJ: Lawrence Erlbaum Associates.

Eron, L.D., Walder, L.O. and Lefkowitz, M.M. (1971) *The Learning of Aggression in Children*. Boston: Little, Brown & Co.

Farber, I.E. (1963) 'The Things People Say to Themselves', *American Psychologist*, *18*, 185–197.

Farrington, D.P. (1978). 'The Family Backgrounds of Aggressive Youths', in L. Hersov, M. Berger and D. Shaffer (eds) *Aggression and Anti-social Behaviour in Childhood and Adolescence*, pp. 73–93. Oxford: Pergamon.

Farrington, D.P. (1982) 'Longitudinal Analyses of Criminal Violence', in M.E. Wolfgang and N.A. Weiner (eds) *Criminal Violence*, pp. 171–200. Beverly Hills, CA: Sage.

Farrington, D.P. and Hawkins, J.D. (1991) 'Predicting Participation, Early Onset and Later Persistence in Officially Recorded Offending', *Criminal Behaviour and Mental Health*, 1(1), 1–33.

Feshbach, S. (1970) 'Aggression' in P.H. Mussen (ed) *Carmichael's Manual of Child Psychology*, Vol. 2, pp. 159–259. New York: Wiley.

Fisher, W.W., Piazza, C., Cataldo, M., Harrell, R., Jefferson, G. and Conner, R.

(1993) 'Functioning Communication Training With and Without Extinction and Punishment', *Journal of Applied Behaviour Analysis*, 26, 23–36.

Gallup Organization (1995) *Disciplining Children in America: A Gallup Poll Report*. Princeton, NJ: Gallup Organization.

Gershoff, E.T. (2002) 'Corporal Punishment by Parents and Associated Child Behaviours and Experiences: A Meta-analytic and Theoretical Review', *Psychological Bulletin*, 128, 539–579.

Grusec, J.E. and Goodnow, J.J. (1994) 'Impact of Parental Discipline Methods on the Child's Internalization of Values: A Reconceptualization of Current Points of View', *Developmental Psychology*, 30(1), 4–19.

Guerra, N.G., Eron, L.D., Huesmann, L.R., Tolan, P. and VanAcker, R. (1997) 'A Cognitive/Ecological Approach to the Prevention and Mitigation of Violence', in K. Bjorkqvist and D. Fry (eds) *Styles of Conflict Resolution: Models and Applications from Around the World*, pp. 199–214. New York: Academic Press.

Guerra, N.G., Huesmann, L.R., Tolan, P.H., VanAcker, R. and Eron, L.D. (1995) 'Stressful Events and Individual Beliefs as Correlates of Economic Disadvantage and Aggression Among Urban Children', *Journal of Consulting and Clinical Psychology*, 63(4), 518–528.

Gunnoe, M.L. and Mariner, C.L. (1997) 'Toward a Developmental-Contextual Model of the Effects of Parental Spanking on Children's Aggression', *Archives of Pediatric Adolescence Medicine*, 151, 768–775.

Hetherington, E.M., Stouwie, R.J. and Ridberg, E.H. (1971) 'Patterns of Family Interaction and Child-rearing Attitudes Related to Three Dimensions of Juvenile Delinquency', *Journal of Abnormal Psychology*, 78(2), 160–176.

Hoffman, M.L. (1994) 'Superego Analysis Report of the Kris Study Group: Response to David Milrod, M.D.', *Journal of Clinical Psychoanalysis*, 3(2), 228-230.

Hoffman, M.L. (1960) 'Power Assertion by the Parent and its Impact on the Child', *Child Development*, 34, 129–143.

Huesmann, L.R. (1982) 'Television Violence and Aggressive Behaviour', in D. Pearl, L. Bouthilet and J. Lazar (eds), *Television and Behaviour: Ten Years of Scientific Programs and Implications for the 80's*, Vol. 2, pp. 126–137. Washington, D.C.: US Government Printing Office.

Huesmann, L.R. (1988) 'An Information Processing Model for the Development of Aggression', *Aggressive Behaviour*, 14, 13–24.

Huesmann, L.R. (1998) 'The Role of Social Information Processing and Cognitive Schema in the Acquisition and Maintenance of Habitual Aggressive Behaviour', in R.G. Geen and E. Donnerstein (eds.) *Human Aggression: Theories, Research, and Implications for Policy*, pp. 73–109. New York: Academic Press.

Huesmann, L.R. and Eron, L.D. (eds) (1986) *Television and the Aggressive Child: A Cross-National Comparison*. Hillsdale, NJ: Erlbaum.

Huesmann, L.R. and Eron, L.D. (1991) 'Modeles structurels du development de l'agressivite' [Structural Models for the Development of Aggression], in R.E. Tremblay (ed.) *Les Comportements Agressifs*, pp. 181–214. Montreal: University of Montreal Press.

Huesmann, L.R., Eron, L.D., Lefkowitz, M.M. and Walder, L.O. (1984) 'The Stability of Aggression Over Time and Generations', *Developmental Psychology*, 20(6), 1120–1134.

Huesmann, L.R. and Miller, L.S. (1994) 'Long-term Effects of Repeated Exposure to Media Violence in Childhood', in L.R. Huesmann (ed.) *Aggressive Behaviour: Current Perspectives*, pp. 153–186. New York: Plenum.

Huesmann, L.R., Moise, J. and Podolski, C.P. (1997) 'The Effects of Media Violence on the Development of Antisocial Behaviour', in D. Stoff, J. Breiling, and J. Masser (eds) *Handbook of Antisocial Behaviour*, pp. 181–193. New York: Wiley.

Kagan, J. (1988) 'Temperamental Contributions to Social Behaviour', *American Psychologist*, 44, 668–674.

Kanfer, F.H. and Hagerman, S.M. (1985) 'Behaviour Therapy and the Information-processing Paradigm', in S. Reiss and R.R. Bootzin (eds) *Theoretical Issues in Behaviour Therapy*, pp. 3–33. New York: Academic Press.

Kazdin, A.E. (1982) 'Symptom Substitution, Generalization, and Response Covariation: Implications for Psychotherapy Outcome', *Psychological Bulletin*, 92, 349–365.

Kazdin, A.E. (1987) 'Treatment of Antisocial Behaviour in Children: Current Status and Future Directions', *Psychological Bulletin*, 102, 187–203.

Kazdin, A.E. (1989) *Behaviour Modification in Applied Settings* (4th edn). Pacific Grove, CA: Brooks/Cole Publishing Co.

Kuczynski, L., Kochanska, G., Radke-Yarrow, M. and Girnius-Brown, O. (1987) 'A Developmental Interpretation of Young Children's Noncompliance', *Developmental Psychology*, 23(6), 799–806.

Lagerspetz, K. and Lagerspetz, K.M.J. (1971) 'Changes in Aggressiveness of Mice Resulting from Selective Breeding, Learning and Social Isolation', *Scandinavian Journal of Psychology*, 12, 241–278.

Lax, R.F. (1992) 'A Variation on Freud's Theme in "A Child is Being Beaten" – Mother's Role: Some Implications for Superego Development in Women', *Journal of the American Psychoanalytic Association*, 40, 455–473.

Lefkowitz, M.M., Walder, L.O. and Eron, L.D. (1963) 'Punishment, Identification and Aggression', *Merrill-Palmer Quarterly*, 9, 1060–1074.

Lefkowitz, M.M., Eron, L.D., Walder, L.O. and Huesmann, L.R. (1977) *Growing Up to be Violent: A Longitudinal Study of the Development of Aggression*', New York: Pergamon Press.

Luntz, B.K. and Widon, C.S. (1994) 'Antisocial Personality Disorders in Abused and Neglected Children Grown Up', *American Journal of Psychiatry*, 151(5), 670–674.

Madsen, C.H., Becker, W.C., Thomas, D.R., Koser, L. and Plager, E. (1970) 'An Analysis of the Reinforcing Function of "Sit Down" Commands', in R.K. Parker (ed.) *Readings in Educational Psychology*, pp. 265–278. Boston, MA: Allyn & Bacon.

Martin, B. (1975) Parent-Child Relations', in F.D. Horowitz (ed.) *Review of Child Development Research*, Vol. 4, pp. 463–540. Chicago: University of Chicago Press.

Matson, J.L and Kazdin, A.E. (1981) 'Punishment in Behaviour Modification: Pragmatic, Ethical and Legal Issues', *Clinical Psychology Review*, 1(2), 197–210.

McCord, J. (1983) 'A Forty-year Perspective on Effects of Child Abuse and Neglect', *Child Abuse and Neglect*, 7(3), 265–270.

McCord, J. (1988). 'Parental Behaviour in the Cycle of Aggression', *Psychiatry*, 51(1), 14–23.

McCord, J. (1991) 'Questioning the Value of Punishment,' *Social Problems*, 38(2), 167–179.

McCord, J. (ed.) (1995) *Coercion and Punishment in Long Term Perspective*. New York: Cambridge University Press.

McCord, W., McCord, J. and Howard, A. (1961) 'Familial Correlates of Aggression in Nondelinquent Male Children. *Journal of Abnormal and Social Psychology*, 62(1), 79–93.

McCormick, K.F. (1992) 'Attitudes of Primary Care Physicians Toward Corporal Punishment', *Journal of the American Medical Association*, 267(23), 3171–3165.

Mednick, S.A., Gabrielli, W.F. and Hutchings, B. (1984) 'Genetic Influences in Criminal Convictions: Evidence From an Adoption Court', *Science*, 224, 891–894.

Meltzoff, A.N. and Moore, K.M. (1977) 'Imitation of Facial and Manual Gestures by Human Neonates', *Science*, 109, 77–78.

Milrod, D. (1994) 'Superego Analysis Report of the Kris Study Group: Discussion,' *Journal of Clinical Psychoanalysis*, 3(2), 221–227.

Noshpitz, J.D. (1993) 'Superego Pathology in Conduct Disorders', *Israel Journal of Psychiatry and Related Sciences*, 30(1), 3–14.

Noshpitz, J.D. (1994) 'Self-destructiveness in Adolescence', *American Journal of Psychotherapy*, 48(3), 330–346.

Olweus, D. (1979) 'The Stability of Aggressive Reaction Patterns in Males: A review', *Psychological Bulletin*, 86, 852–875.

Olweus, D., Mattsson, A., Schalling, D. and Low, H. (1988) 'Circulating Testosterone Levels and Aggression in Adolescent Males: A Causal Analysis', *Psychosomatic Medicine*, 50, 261–272.

Paik, H. and Comstock, G.A. (1994) 'The Effects of Television Violence on Antisocial Behaviour: A Meta-analysis', *Communication Research*, 21, 516–546.

Parke, R.D. and Slaby, R. (1983) 'The Development of Aggression', in P.H. Mussen (ed.) *Handbook of Child Psychology*, Vol. 4, pp. 547–642. New York: John Wiley & Sons.

Patterson, G.R. (1986) 'Performance Models for Antisocial Boys', *American Psychologist*, 41(4), 432–444.

Patterson, G.R. (1995) 'Coercion – A Basis for Early Age of Onset for Arrest', in J.McCord (ed.) *Coercion and Punishment in Long-term Perspective*, pp. 139–168. New York: Cambridge University Press.

Patterson, G.R., Capaldi, D.M. and Bank, L. (1991) 'An Early Starter Model for Predicting Delinquency', in D.J. Pepler and K.H. Rubin (eds) *Systems and Development: Symposia on Child Psychology*, pp. 139–168. Hillsdale, NJ: Lawrence Erlbaum.

Pulkkinen, L. (1993) 'Continuities in Aggressive Behaviour from Childhood to Adulthood'. *Aggressive Behaviour*, 19(4), 249–263.

Raine, A. and Jones, F. (1987) 'Attention, Autonomic Arousal, and Personality in Behaviourally Disordered Children', *Journal of Abnormal Child Psychology*, 15, 583–599.

Rizzolatti, G., Fadiga, L., Gallese, V. and Fogassi, L. (1996) 'Premotor Cortex and the Recognition of Motor Actions', *Cognitive Brain Research*, 3, 131–141.

Roberts, M.W. and Powers, S.W. (1990) 'Adjusting Chair Timeout Enforcement Procedures for Oppositional Children', *Behaviour Therapy*, 21, 257–271.

Scarboro, M.E. and Forehand, R. (1975) 'Effects of Two Types of Response-contingent Time-out on Compliance and Oppositional Behaviour of Children', *Journal of Experimental and Child Psychology*, 19, 252–264.

Sears, R.R., Maccoby, E.E. and Levin, H. (1957) *Patterns of Child Rearing*. Evanston, IL: Row, Peterson and Company.

Simons, R.L., Johnson, C. and Conger, R.D. (1994) 'Harsh Corporal Punishment versus Quality of Parental Involvement as an Explanation of Adolescent Maladjustment', *Journal of Marriage and the Family*, 56, 591–607.

Solheim, J.S. (1982) 'A Cross-cultural Examination of use of Corporal Punishment on Children: A Focus on Sweden and the United States', *Child Abuse and Neglect*, 6(2), 147–154.

Staub, E. (1996) 'Cultural-societal Roots of Violence: The Examples of Genocidal Violence and of Contemporary Youth Violence in the United States', *American Psychologist*, 51(2), 117–132.

Strassberg, Z., Dodge, K.A., Pettit, G.S. and Bates, J.E. (1994) 'Spanking in the Home and Children's Subsequent Aggression Toward Kindergarten Peers. *Development and Psychopathology*, 6(3), 445–461.

Straus, M.A. and Kanton, G.K. (1994) 'Corporal Punishment of Adolescents by Parents: A Risk Factor in the Epidemiology of Depression, Suicide, Alcohol Abuse, Child Abuse, and Wife Beating', *Adolescence*, 29, 543–561.

Sugarman, D.B., Straus, M.A. and Giles-Sims, J. (1994) 'Corporal Punishment by Parents and Subsequent Anti-social Behaviour of Children'. Presented at conference on Research on Discipline: The State of the Art, Deficits, and Implications. University of North Carolina Medical School.

Thorndike, E.L. (1911) *Animal Intelligence: Experimental Studies*. New York: Macmillan.

Trumbull, D.A. (1995) 'Disciplinary Spanking by Parents', AAP District IV Meeting, November.

Weiss, B., Dodge, K.A., Bates, J.E. and Pettit, G.S. (1992) 'Some Consequences of Early Harsh Discipline: Child Aggression and a Maladaptive Social Information Processing Style', *Child Development*, 63(6), 1321–1335.

Westen, D. (1986) 'The Superego: A Revised Developmental Model', *Journal of American Academy of Psychoanalysis*, 14(2), 181–202.
Wicklund, R.A. (1970) 'Prechoice Preference Reversal as a Result of Threat to Decision Freedom', *Journal of Personality and Social Psychology*, 14(1), 8–17.
Widom, C.S. (1989) 'Does Violence Beget Violence? A Critical Examination of the Literature. *Psychological Bulletin*, 106(1), 3–28.