

# Possible Connections between Bullying Behaviour, Empathy and Imitation

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## Abstract

This paper is a position paper that speculates about a possible connection between bullying behaviour, empathy and imitation. The primary aim of our work is to provide a clearer understanding of bullying behaviour, by focusing on cognitive and emotional states that might cause bullies to show anti-social behaviour. A review of relevant research about bullying behaviour is presented followed by a brief discussion of empathy and imitation. Finally, we try to bring together these different lines of research and present the hypothesis that bullies possess well developed automatic as well as cognitive empathy, and that bullying behaviour is caused by an overemphasis of goal-directed processes of controlled empathy that work towards nonempathy. We conclude by speculating on a possible role of imitation in bullying intervention programmes.

## 1 Introduction: Bullying Behaviour

### 1.1 What is bullying?

The pervasive nature and deleterious consequences of bullying and victimisation behaviour has generated a great deal of research interest over the past decade. Olweus (1978, 1993, 1999) pioneered the first in depth studies about bullying behaviour in Sweden and accordingly defined victimisation as 'a student being exposed to negative actions on the part of one or more other students with the intention to hurt'. Bullying behaviour is distinguishable from aggressive behaviour per se as it has to be a *repeated action that occurs regularly over time* (Olweus, 1999), and it *usually involves an imbalance in strength*, either real or perceived (Craig, 1998; Whitney & Smith, 1993). Bullying constitutes a diverse array of behaviours which have generally been categorised under the terms 'direct' physical bullying, verbal bullying and relational 'indirect' bullying (Björkqvist, 1994; Björkqvist *et al.*, 1992). Direct physical bullying includes actions such as being hit, kicked or punched, and taking belongings. Verbal bullying comprises of name calling, cruel teasing, taunting or being threatened, and relational or 'indirect' bullying refers to behaviours such as social exclusion, malicious rumour spreading, and the withdrawal of friendships (Wolke *et al.*, 2000).

#### 1.1.1 Different roles in bullying episodes

Research studies have traditionally conceptualised bullying behaviour within the dichotomy of 'pure' bullies and 'pure' victims. However, more recently, this has been deemed as an oversimplification due to a significant proportion of children being involved in both bullying other children and being victimised at other times. These children have been termed 'bully/victims' (Wolke & Stanford, 1999; Wolke *et al.*, 2000; Kumpulainen *et al.*, 1998; Sutton & Smith, 1999).

The behavioural characteristics of the different roles involved within bullying behaviour reveal that bully/victims are rated as being the least popular by peers (Wolke & Stanford, 1999), are easily provoked and hot tempered (Schwartz *et al.*, 2000), and have problem behaviour with hyperactivity, impulsivity and conduct disorder compared to children not involved in bullying behaviour (Wolke *et al.*, 2000; Kumpulainen *et al.*, 1998; Duncan, 1999). There is consensus across studies that victims fit the profile of having poor prosocial skills, are unable to employ adaptive coping mechanisms, and are susceptible to internalised psychological problems such as anxiety and depression (Wolke & Stanford, 1999; Bond *et al.*, 2001).

#### 1.1.2 The nature of a bully: Mindreading and empathy

There remains uncertainty within the literature regarding the profile of 'pure' bullies. The traditional stereotype of bullies is that they are male, physically strong, not academically bright and resort to violence to resolve conflicts as this is the only response mechanism available to them (Sutton *et al.*, 1999). For example, Randall (1997) claimed that 'pure' bullies 'fail to understand the feelings of others' and 'have little awareness of what other children actually think of them ... a symptom of social blindness'. Other studies have reported that bullies are anxious, depressed, insecure individuals characterised by low self-esteem (Salmon *et al.*, 1998) who have problem behaviours (Farrington, 1993). In contrast, Sutton *et al.* (1999) argue that 'pure' bullies have a superior theory of mind and are actually extremely socially competent and have termed this 'cool cognition'. It is believed that the ability of bullies to understand and manipulate the minds of others provides the context and skills for effective and recurrent bullying without getting found out.

Linked into the notion of bullies having a superior theory of mind is the ongoing debate concerning whether 'pure'

bullies lack empathic skills and whether this exacerbates the recurrent nature of bullying behaviour due to the bully not feeling any empathy or sympathy towards the victim. In support of this assertion, several studies have suggested that if a victim displays distress, this only serves to reinforce the bullies' behaviour even more (Davis, 1994). Sutton *et al.* (1999) believe that 'pure' bullies understand the emotions of others but do not share them resulting in a 'theory of nasty minds'. This is backed up by Evans *et al.* (2002) who examined a sub-set of children who were characterised by those close to them as being interpersonally negative, displaying spiteful and hostile behaviour and general anti-social behaviour. Findings revealed that these children could be described as having *inhibited* empathy rather than a *lack* of empathy. The inconsistencies across studies concerning the profile of 'pure' bullies is likely to be due to a combination of different factors ranging from the definition of what constitutes bullying behaviour, the methodology employed to assess bullying behaviour, the distinction between 'pure' bullies and bully/victims and whether studies considered 'direct' physical bullying alone or relational bullying. To highlight this, studies which have distinguished between direct and relational bullying and 'pure' bullies and bully/victims have revealed that 'pure' bullies have few behaviour problems, enjoy going to school, have few days absent from school, do not suffer from physical and psychosomatic health problems and are academically bright individuals (Wolke *et al.*, 2000, 2001).

### 1.1.3 Bullying and social intelligence

Other studies have focused upon the nature of social intelligence in relation to empathy and bullying behaviour (Kaukainen *et al.*, 1999) and have stipulated that social intelligence and empathy are not totally independent of each other. Kaukainen *et al.* believe that empathy is characterised by sensitivity toward the feelings of others, whereas social intelligence can be applied without emotions in a cold hearted manner. It was revealed that social intelligence highly correlated with indirect forms of bullying but not physical or verbal bullying. These findings are strongly related to the findings by Sutton *et al.* (1999) that 'pure' bullies have a superior theory of mind.

Controversy surrounds the precursors of what makes a 'pure' bully and the persistent nature of this behaviour. This is likely to be due to the lack of theoretical frameworks and models through which to examine these precursors, and the reliance on models explaining anti-social behaviour as opposed to bullying per se. Social Information processing models proposed by Crick & Dodge (1996) and later by Arsenio *et al.* (2000) provide initial attempts to explain the mechanisms of children's social adjustment and will be covered in more detail in later sections. Rubin *et al.* (1990) postulated that the deviant pathway for bullies is linked to dispositional and temperamental traits in the child such as being fussy, difficult to soothe, having insecure-avoidant attachment patterns which ultimately leads to hostility, peer rejection and externalising behaviour problems. The family background of bullies has also been implicated as a strong precursor for developing bullying traits. Bowers *et al.*

(1994) revealed that there was a concern with power in the families of bullies and a lack of family cohesion. Farrington (1998) asserts that bullies feel like they have little control at home and therefore seek somebody to control and victimise. In a similar vein, Curtner-Smith (1999) found that parents who are disagreeable, hostile, cold or rejecting tend to have children who are at risk of becoming aggressive. Stevens *et al.* (2002) considered the relationship between the family environment and involvement in bully/victim problems at school. Child and parent perceptions of family functioning differed substantially. For example, bullies described their families as 'less cohesive, more conflictual and less organised and controlled.' In contrast, parent perceptions only differed from parents of victims, bully/victims and neutral children by reporting more punishment. Conversely, the family background for victims of bullying indicates maternal over-protectiveness and critical and distant relationships with the father among boys. For girls, victimisation is related to maternal hostility. A common pathway for victimisation may occur when maternal behaviour hinders both boys' and girls' social and developmental goals (Wolke & Stanford, 1999).

A summary of research findings regarding the profile of 'pure' bullies points towards them as being socially intelligent and manipulative in social situations as opposed to the popular stereotype of bullies being psychopaths and 'strong but dumb and brutal characters' as frequently portrayed in movies.

### 1.1.4 How do bullies become bullies?

Since bullying behaviour is a relatively new subject in the psychology literature, research to date has mainly focussed on the character profiles of bullies and analysing their behaviour and social intelligence. There are no long-term longitudinal studies available that have considered the crucial questions of how bullies become bullies, and why some children become bullies while others develop into victims, bully/victims or neutrals. It is only recently that studies have begun to consider the stability of bullying roles over time but this has not shed light on the developmental trajectories for becoming a 'pure' bully. As discussed above, correlational statistical data can give some hints surrounding the circumstances that bullies are associated with, but such data have little causal explanatory power. Since bullying is such a complex behaviour, it is unlikely that some children are 'naturally born bullies', i.e. it seems unlikely that there is a simple genetic explanation such as a 'bullying gene'. Neither is there convincing evidence that bullies are being 'taught' directly to be bullies (e.g. by family, peers, or media such as computer games or television), although there is evidence to suggest that 'pure' bullies may come from families where the father was a bully, indicating links with social learning (Farrington, 1992). Also, it seems that being a bully is not a 'conscious' choice, e.g. a child who previously suffered from being bullied is unlikely to suddenly become a bully by conscious decision.

In the following we explore the possibility that particular events during child development, in particular during critical periods of socialisation, might provide predispositions for becoming a bully.

## 2 Imitation

### 2.1 Imitation and intersubjectivity

Developmental studies have identified important steps in the development of a child as a 'social being'. Early childhood interaction 'games' between infants and their caretakers play an important role in how children first make contact with the social world (cf. neonatal imitation research, e.g. Meltzoff 1988, Meltzoff *et al.*, 1993, 1999). It has been suggested that imitation plays an important part in how intersubjectivity arises (e.g. Nadel *et al.*, 1999). Although imitation is also a powerful means for humans to acquire new skills, the social function of imitation is a stepping stone in the development of humans as *social beings*. Synchronisation of behaviour in infant-caretaker (playful) interactions leads to a meaningful 'dance' that allows the co-creation of intersubjectivity (sharing of experiences and emotions), and meaning in interactions (Trevvarthen 1999; Trevvarthen *et al.*, 1999). Note, that such games are dynamically emerging in face-to-face interaction, they emerge from 'local rules' of coordination and synchronisation, rather than representing a cognitively planned sequence of actions.

An interesting distinction, for the purpose of this paper, is to separate automatic from controlled empathy (Hodges and Wegner, 1997). A simple and developmentally early example of automatic empathy is automatic emotional empathy that helps infants and babies to share happiness and distress with others. Also, later in life emotional contagion still plays an important part in our lives, as a means to share emotional expressions or physiological states of others (e.g. we tend to smile when watching others smiling). Automatic empathy is immediate, and not intentional. Even in adults this helps us sharing feelings, i.e. experiencing emotions that we observe. This process for example helps us to experience some pain when we see another person being hurt. We cannot wilfully 'switch off' emotional contagion.

Controlled empathy, as distinguished by Hodges and Wegner, can be produced consciously and intentionally. It usually involves an effortful search for cues in one's own memory that could trigger automatic empathy, a progress that we try to control, e.g. by controlling our exposure (actual or imagined) to the stimuli evoking this response. During controlled empathy we gain knowledge that we can use in a variety of ways, i.e. for the purpose of better understanding oneself, for better understanding others in order to help them, or for manipulating others / gaining a personal advantage. Cognitive empathy can be automatic, too. For example, when remembering a particular person we might tend to adopt that person's viewpoints or opinions. Similarly, being situated in a particular

environment might evoke automatic cognitive empathy that changes our state of mind (Hodges and Wegner, 1997).

Automatic processes of empathy help us to establish intersubjectivity with other people, and it allows us to share experiences: experiences that can be shared on the emotional basis, on the level of affect rather than physically experiencing exactly the same situations as the person we empathize with. Such 'second-hand' experience can be an indirect source of learning from experience, by sharing the effects and affective qualities of other people's experiences.

## 3 Empathy and Imitation

### 3.1 Deficits in empathy and autism

A general deficit in relating to other people and empathy has been discussed in the literature for autism, a developmental disorder. People with autism show impairments in communication, social interaction and imagination and fantasy. A specific theory of mind (TOM) deficit has been hypothesised as a cognitive explanation of autistic behaviour (Leslie, 1987; Frith *et al.*, 1991; Baron-Cohen *et al.*, 1985). Although the TOM explanation of autistic deficits has been accepted by many researchers, it is not uncontroversial. Primary deficits in emotional, interactive, or other factors central to the *embodied* and *intersubjective* nature of social understanding have been suggested as possible causes of autism (e.g. Rogers & Pennington, 1991; Hobson, 1993). Affective theories see a lack of empathy, which in typically developing children develops through coordinated interchanges that result in intersubjectivity and emotional engagement, as central to autism (Hobson 1993). According to Hobson autistic children do not participate in intersubjective social experiences from early on in their lives. Bruner and Feldman (1993) proposed the *narrative deficit hypothesis of autism*, that hypothesizes a failure of infants to participate in narrative construction through *preverbal* transactional formats. Many theories aim at explaining the underlying causes of autism, and we cannot provide a comprehensive review here (but cf. Jordan, 1999). For the purpose of this paper it suffices that researchers have highlighted two different aspects of empathy in typically developing children, namely a cognitive as well as an emotional side which, as we suggest, can be linked with controlled / automatic empathy as discussed above.

#### 3.1.1 Deficits in imitation and autism

Discussions of deficits for children with autism with respect to imitation are controversial (e.g. Rogers, 1999; Charman *et al.*, 1994). Generally children with autism seem to have some impairment in imitation skills, in particular they seem less able to imitate actions and gestures. However, it has been shown by Nadel & Pez  (1993) that even low-functioning children with autism can produce spontaneous imitations when encountering a non-autistic child, (cf. discussions in Nadel *et al.*, 1999; Nadel 2002). Others have suggested a possible link between autism and a neurobiological disorder in the "mirror system", that is

involved in establishing a connection between what actions one sees other perform, and what actions one is able to do (Williams *et al.*, 2001). It has been hypothesised that this mirror system could provide a ‘neural substrate’ for a simulation theory of empathy (Gallese & Goldman, 1998).

People with autism provide an example of the consequences of having difficulty in possibly both automatic as well as cognitive empathy which makes it difficult for them to share experiences with others and to perceive others as *people* with emotions, goals and other mental states. As a consequence, although their behaviour might appear ‘rude’ or ‘cold’ to others, it is based on how they perceive the (social) world. People with autism generally do not lie, deceive, or manipulate: since they cannot perceive other people as ‘mindful’ they lack the notion of manipulating minds, and rather tend to believe that other’s perceptions and states of mind are identical to their own.

### 3.1.2 Empathy and psychopathy

This situation is very different from psychopathy where people suffer from an antisocial personality disorder. Psychopaths on the one hand lack empathy, but on the other hand are very skilful at manipulating and deceiving others. According to Hare’s *Psychopathy Checklist-Revised* (Hare, 1991) which was designed for identifying psychopaths they are described as superficial, egocentric, grandiose, lack remorse or guilt, lack empathy, are deceitful, manipulative, and have shallow emotions. As discussed in Pitchford (2001) clinicians characterise the emotions of psychopaths as ‘protoemotions’, i.e. “primitive responses to immediate needs” (Pitchford, 2001). Blair *et al.* (1996) reported that psychopaths do not have a theory of mind deficit. Differences in processing emotional information have been suggested, which might explain why psychopaths have a lack of moral emotions, e.g. they feel little guilt or remorse for their actions (Blair *et al.*, 1995; Blair, 1997).

### 3.1.3 Differences in empathy for autism and psychopathy

Thus, autism and psychopathy illustrate two extreme examples of the consequences of deficits in empathy: Autistic people have a fundamental problem with behaving socially and perceiving others as ‘persons that can empathize and can be empathized with’. Their behaviour might at times appear rude, insensitive or inappropriate, but this is not due to a choice but is due to a lack of understanding of what behaviour would be appropriate. On the other hand, psychopaths are very skilful mindreaders and social manipulators, but the consequences of their actions are anti-social because of an extremely egocentric viewpoint that is possibly due to impaired processing of emotional information. Impaired emotion processing is likely to directly impact on automatic empathy by affecting the crucial link that allows us to relate to another person’s emotions and experiences. Psychopaths know that others have a mind, and they know how to manipulate minds.

## 3.2 Empathy and bullying behaviour

How could bullies fit into this picture? Several explanations are possible:

In contrast to previous suggestions that bullies are ‘strong but dumb’, i.e. lack social intelligence, are not able to understand and interpret others’ emotions and mental states, and ‘are not aware’ of the consequences of their actions, evidence points towards bullies as possessing well developed social intelligence and being good mindreaders. It seems bullies are good at manipulating others because they can easily understand and predict the consequences of their actions. This is what makes them ‘leaders’ who control other children. Research studies examining the profiles of ‘pure’ bullies, in particular relational bullies highlight some similarities with the profile outlined for psychopaths. For example, Sutton *et al.* (1999) state “while it is not suggested that bullies are all budding psychopaths, they have been reported to have higher levels of psychoticism than victims and controls.” Different from the conventional stereotypes, it seems that victims are poor mindreaders, not bullies. Victims appear to have deficits in theory of mind that prevents them from successfully predicting and dealing with a bully’s manipulations.

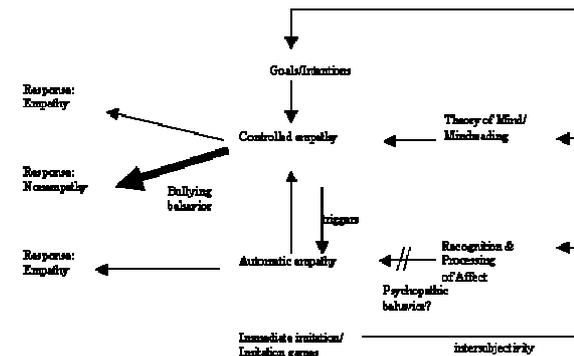


Figure 1: Sketching possible connections between imitation, empathy and bullying behaviour. We hypothesize that although bullies possess the capacity of empathy, bullying behaviour is caused by an overemphasis of goal-directed processes of controlled empathy that work towards nonempathy.

If bullies are good mindreaders and socially intelligent in terms of manipulating others, can bullies feel empathy at all? Have bullies psychopath-like tendencies with impaired emotion processing? We are not aware of any evidence suggesting a direct link between childhood bullies automatically developing into psychopaths later in life. An alternative view that we suggest is to consider bullies as possessing both automatic as well as controlled empathy (different from both people with autism as well as from psychopaths), but (possibly intentionally) use processes of controlled empathy for the goal of nonempathy. Thus, a bully might be perfectly able to recognize and understand the suffering of his victim (e.g. a child who he just beat), his emotion processing could give him the ‘correct’

interpretation (e.g. of pain), and via controlled empathy automatic empathic responses might be triggered in his memory (e.g. reminding him of an instance when he felt pain) but the cognitive, goal-directed processes of controlled empathy would work towards nonempathy (see figure 1). (Note, goal-oriented processes play an important role for all of us in empathy. However, in bullies the tendency to display controlled empathy is, according to our hypothesis, more pronounced). Similarly, imagine the news of a famous, conservative politician caught in an embarrassing instance of private exposure. If the same happened to a family member, we would clearly feel and express empathy. In the case of the politician we are more likely to react in an ironic, or otherwise clearly nonempathic way. Thus, the goals we pursue in controlled empathy can shape emotional, automatic responses either towards empathy or nonempathy.

### 3.2.1 The distinction between automatic and controlled empathy in bullies

The hypothesis outlined above suggests that bullies direct controlled empathy in instances of bullying towards non-empathy. What predictions derive from this hypothesis, and how could it be tested?

Based on our hypothesis, bullies have unimpaired empathic skills as far as the processes are involved that trigger automatic empathy. Accordingly, they are able to express empathy, possibly in contexts outside schools. This hypothesis could be disconfirmed by evidence of a substantial impairment of automatic and / or controlled empathy processes, impairments that could prevent bullies from *genuinely* experiencing empathy. Evidence of bullies who only show bullying behaviour in certain contexts, but not in others, would confirm our hypothesis. It would point towards a picture of bullies as children who can strongly control their empathic skills, in the extreme case possibly even switch them on and off depending on the context (i.e. their own goals). In a longitudinal study following the lives of bullies we would predict that while some bullies might prefer consciously to make a career as a "bully", others might no longer show any bullying behaviour after a certain period (e.g. due a change in personal goals).

If bullies are very much goal-oriented empathizers, we might find more bullies in situations where children are involved in strong competition for resources, e.g. competition for the attention / affection of parents / caregivers, competition with siblings or peers, or competition for elementary resources such as food in extreme circumstances. We predict that such contexts can facilitate bullying behaviour. Changing family and / or other environmental conditions should therefore influence the behaviour of bullies. There are no longitudinal studies which have considered the justifications that children provide for bullying others. However, there is some evidence that bullying may be related to critical life experiences, and personal goals such as moving into a new school when dominance is initially being negotiated for new peer relationships (Pellegrini & Bartini, 2001;

Pellegrini & Long, 2002). Results from a two year follow-up study revealed that bullying and aggression initially increased with the transition to a new school and then declined once peer hierarchies had been re-defined. Furthermore, there is evidence that children who are very aggressive to their siblings are likely to have problems with peers outside the family-namely rejection by peers and that the personality characteristics of bullies appear to be stable across social situations where there is 'forced' formation of the group composition (Dishion, 1986). Bowers *et al.* (1992, 1994) further reported that bullies had more negative relationships with their siblings whom they viewed as more powerful than themselves.

According to our hypothesis, an educational or cultural environment that focuses on problem-solving and goal-oriented behaviour should facilitate the occurrence of bullies since it supports their tendency towards goal-oriented empathic understanding.

An environment that raises awareness of bullying and the plight of victims should, according to our hypothesis, help bullies to refine their bullying skills by a) enhancing their understanding of how bad they can make the victim feel, and b) show them strategies and counterstrategies that they might use in further instances of bullying.

## 4 Bullying Intervention

### 4.1 Characteristics of bullying intervention programmes

There are a wide range of anti-bullying initiatives that have been developed and implemented in the hope of tackling and reducing bullying problems in schools. Farrington (1993) categorised intervention programmes as focusing on the bully, the victim or the environment as a whole.

Intervention programmes which place emphasis on 'bullies' are diverse in nature and researchers have expressed contrary viewpoints in terms of the most favoured techniques. For example, the use of physical punishment to deter bullies was considered to be helpful by some in a study carried out by Stephenson and Smith (1989) whereas others such as Pikas (1989) with the 'Method of Shared Concern' and Tattum (1989) and Maines & Robinson (1991) with the 'No Blame Approach' believe that physical punishment and reprimands are not effective in reducing bullies behaviour and suggest that bullies should be made to see and understand the view point of victims and make amends for their upsetting behaviour. These methods are usually carried out with the bully and victim individually and subsequently followed by a group discussion with the bully, victim and an adult group mediator.

Prevention programmes focusing on victims have ranged from holding workshops for parents to alert them to the warning signs of bullying (Besag, 1989) to social skills programs which encourage children to develop self confidence, self-esteem and friendship skills (Cowie & Sharp, 1996; Cowie & Olafsson, 2000; Peterson & Rigby, 1999).

The success rates of anti-bullying initiatives are difficult to evaluate in real-life situations due to the large differences between schools, school ethos, and individual differences between children and adults. However, the overall picture highlights that intervention strategies to date are successful in the short-term but do not have long-term success rates in terms of reducing and eliminating bullying problems (Roland, 1993, 2000; Eslea & Smith, 1998).

#### 4.2 VICTEC: An innovative intervention programme for bullying

We are currently working on a European funded project entitled VICTEC (Virtual Information Communication Technology with Empathic Characters) (<http://www.victec.org/>) which aims to develop a new and innovative approach to assist in the reduction of bullying problems in schools for children aged 8-12 years through the use of synthetic characters and dramatics within a virtual learning environment (VLE). It is hoped that the project will provide a safe and exciting environment for children to individually explore the different perspectives involved in bullying, to empathise with the characters and allow children to try out different coping strategies to deal with bullying problems. If the project is a success, we hope to integrate the VLE as part of schools' social educational curriculum.

A key requisite for a successful virtual learning environment to deal with bullying problems concerns the content of the bullying scenarios and back stories to be implemented into the system for the child user to interact with. The project is currently using a software package called 'Kar2ouche' (<http://www.kar2ouche.com/>) with children in primary schools in the U.K., Germany and Portugal and research members with expertise in the areas of bullying to develop believable and engaging bullying scenarios which take cross-cultural differences into account. This software package is a useful tool as it allows the user to choose different environments, different characters, different props and the use of text, boxes, thought and speech bubbles. The stories aim to capture both direct and relational bullying behaviour. Figures 2 and 3 illustrate clips from a direct/physical bullying scenario and a relational bullying scenario.



Figure 2: A scene from a direct/physical bullying scenario.

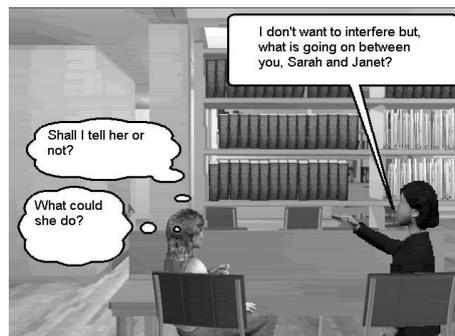


Figure 3: A scene from a relational bullying scenario.

A major issue in VICTEC and other intervention approaches is not to teach bullies how to become better bullies. For victims, the group that we focus on in VICTEC, an education in social intelligence and problem-solving is hoped to have a positive effect. An interesting research question is whether the 'pure' bullies are able to empathise with the characters in the VICTEC project or whether they display a cold calculated demeanour towards the dramas. However, for bullies any 'awareness' programmes might produce a counterproductive effect. Clearly, bullies should not be isolated and separated from any intervention programme. Thus, what could help in intervention programmes for bullies?

##### 4.2.1 Empathy as a tool for bullying intervention programmes

If bullies use empathic skills mainly in a goal-oriented manner, can we change their goals? We believe not, based on evidence that insight-oriented intervention programmes seem not very successful, as discussed above. It is likely that any intervention trying to convince a bully that they should change their goals will result in a bully who is even more aware of his/her goals. Likewise, any other 'cognitive' approaches towards educating bullies might fail for the same reasons. A similar counterproductive effect of insight-oriented therapy is being discussed for psychopaths: after such therapy psychopaths seem more likely to reoffend (Quinsey & Lalumière, 1995), possibly because it helped them to even further perfect their skills in psychological manipulation (Hare, 1993).

Thus, if not on the cognitive level, then can the emotional levels that are involved in automatic empathy be strengthened in bullies? Any empowerment of this kind would have to be taught on the emotional level, not the cognitive level of e.g. "explaining emotions" in discussions or writings.

##### 4.2.2 The use of imitative interactive behaviour for bullying interventions

As a proposal for a behavioural intervention programme for children with a tendency towards bullying behaviour we

suggest to investigate the impact of imitative, interactive behaviour.

As we discussed above, a major achievement in a child's childhood is to 'make emotional contact' with people, to share experiences, to create intersubjectivity, a crucial stepping stone in becoming a social being. Interestingly, this is not achieved by watching and analysing interactions from a distance, or by reading about it or being taught explicitly: it is mainly achieved through imitative interaction games. Such intersubjectivity that one can find in immediate imitation results from being part of an interaction. Immersion in the interaction, as well as a synchronisation and sharing of goals makes this interaction socially and emotionally important. Infants playing turn-taking and imitation games with their caretakers, either vocally or involving body movements, share emotional experiences, a key element in automatic empathy that "just happens". Later in life a "theory of mind" and cognitive processes complement this "immediate link" towards another person's feelings.

Thus, a 10-year old bully might have to be reminded of what it means to connect to people. He might know how to connect to others in principle, but he might use this skill very selectively, e.g. directed only towards his closest friends, while for other children his cognitive control of empathy dominates. Such children might have to be reminded that the world consists of many other 'sentient beings' whose emotional states deserve attention, not just of bullies and victims (and other bystanders/neutral that can easily be ignored or recruited). We speculate that behavioural intervention programmes based on imitation and the elicitation of automatic empathic responses (e.g. emotional contagion) might help to strengthen empathic responses in children with a tendency towards bullying behaviour.

An important consideration for bullying intervention programmes concerns the environment and the individuals involved. As previously stated, intervention strategies which have focused upon trying to re-establish amicable relations between bullies and victims have received limited success. The inclusion of the whole family in intervention programmes for bullies could be explored, for example, the parents of bullies may benefit from being involved in imitation and empathy skills training. Evidence for this family involvement in intervention programmes is derived from Stevens *et al.* (2002) who reported that the family backgrounds for bullies had similar characteristics of aggressive children including less prosocial interactions, reinforcement of aggressive behaviour and inconsistent and harsh discipline methods. Therefore, it could be argued that if bullies participate in imitative and empathy skills training in isolation from family members, any new skills learnt are likely to short-lived as the rest of the family will not support any visible behavioural changes in the bully.

## 5 Conclusion

This paper is very speculative, due to very little information on "what bullies are" and "where they come from". Bullying is a growing and quite serious problem in schools (and elsewhere) worldwide. Intervention programmes so far have not been significantly successful, we therefore hope that a fresh perspective can contribute to future research in this area.

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## References

- W. F. Arsenio, S. Cooperman, & A. Lover (2000). Affective predictors of preschoolers' aggression and peer acceptance: direct and indirect effects. *Developmental Psychology*, 36(4), pp. 438-448.
- S. Baron-Cohen, A. Leslie, U. Frith (1985). Does the autistic child have a "theory of mind"? *Cognition* 21, pp. 37-46.
- V. Besag (1989). *Bullies and victims at school*. Milton Keynes: Open University Press.
- K. Björkqvist (1994). Sex Differences in Physical, Verbal, and Indirect Aggression: A Review of Recent Research. *Sex roles*, 30(3/4), 177-188.
- K. Björkqvist, K. M. J. Lagerspetz, & A. Kaukiainen (1992). Do Girls Manipulate and Boys Fight? Developmental Trends in regard to Direct and Indirect Aggression. *Aggressive Behaviour*, 18, pp. 117-127.
- R. J. R. Blair, C. Sellars, I. Strickland, F. Clark, A. O. Williams, M. Smith, & L. Jones (1995). Emotion attributions in the psychopath. *Personality and Individual Differences*, 19(4), pp. 431-437.
- R. J. R. Blair, C. Sellars, I. Strickland, F. Clark, et al (1996). Theory of mind in the psychopath. *Journal of Forensic Psychiatry*, 7(1), pp. 15-25
- R. J. R. Blair (1997). Moral reasoning and the child with psychopathic tendencies. *Personality and Individual Differences*, 22(5), pp. 731-739.

- L. Bond, J. B. Carlin, L. Thomas, R. Kerry & G. Patton (2001). Does bullying cause emotional problems? A prospective study of young teenagers. *BMJ*, 323, pp. 480-484.
- L. Bowers, P. K. Smith, & V. Binney (1992). Cohesion and power in the families of children involved in bully/victim problems at school. *Journal of Family Therapy*, 14, pp. 371-387.
- L. Bowers, P. K. Smith, & V. Binney (1994). Perceived family relationships of bullies, victims and bully/victims in middle childhood. *Journal of Social and Personal Relationships*, 11, pp. 215-232.
- J. Bruner, & C. Feldman (1993). Theories of mind and the problem of autism. In S. Baron-Cohen et al. (Eds.), *Understanding other Minds: Perspectives from Autism*. Oxford University Press, Oxford.
- T. S. Charman, & S. Baron-Cohen (1994). Another look at imitation in autism. *Development and Psychopathology* 1, pp. 1-4.
- H. Cowie & R. Olafsson (2000). The role of peer support in helping the victims of bullying in a school with high levels of aggression. *School Psychology International*, 21(1), pp. 79-95.
- H. Cowie & S. Sharp (1996). *Peer counselling in school: a time to listen*. London: David Fulton.
- N. R. Crick, & K. A. Dodge (1996). Social information-processing mechanisms in reactive and proactive aggression. *Child Development*, 67, pp. 993-1002.
- W. M. Craig (1998). The relationship among bullying, victimization, depression, anxiety and aggression in elementary school children. *Personality and Individual Differences*, 24(1), 123-130.
- M. E. Curtner-Smith (1999). *Family processes and boys' bullying*. Paper presented at the The Biennial Meeting of the Society for Research in Child Development, Albuquerque, New Mexico.
- M. H. Davis (1994). *Empathy, A social Psychological approach*. USA: Wm. C. Brown Communications, Inc.
- T. J. Dishion (1990). The family ecology of boys' peer relations in middle childhood. *Child Development*, 61, 864-873.
- R. D. Duncan (1999). Peer and sibling aggression: An investigation of intra- and extrafamilial bullying. *Journal of Interpersonal Violence*, 14(8), pp. 871-886.
- M. Eslea & P. K. Smith (1998). The long-term effectiveness of anti-bullying work in primary schools. *Educational Research*, 40(2), 1-16.
- I. M. Evans, S. A. Heriot & A. G. Friedman (2002). A behavioural pattern of irritability, hostility and inhibited empathy in children. *Clinical Child Psychology and Psychiatry*, 7, pp. 211-224.
- D. P. Farrington (1993). Understanding and preventing bullying. In M. Tonry (Ed.), *Crime and Justice* Chicago: University of Chicago, Vol. 17, pp. 381-458.
- U. Frith, J. Morton, A. Leslie (1991). The cognitive basis of a biological Disorder. *Trends in Neurosciences* 14, pp. 433-438.
- V. Gallese, & A. Goldman (1998). Mirror neurons and the simulation theory of mind-reading. *Trends in Cognitive Sciences*, 2(12), pp. 493-501.
- R. Hare (1991). *The Hare Psychopathy Checklist-Revised*. Toronto: Multi-Health Systems.
- R. Hare (1993). *Without conscience: The disturbing world of the psychopaths among us*. New York: Simon and Schuster.
- P. Hobson (1993). Understanding persons: the role of affect. In S. Baron-Cohen, H. Tager-Flusberg & D. J. Cohen. In *Understanding other minds, perspectives from autism*, Oxford University Press, pp. 204-227.
- S. D. Hodges, & D. M. Wegner (1997). Automatic and controlled empathy. In Ickes, W. (ed) *Empathic accuracy*, The Guildford Press, pp. 311-339.
- R. Jordan (1999) *Autistic Spectrum Disorders - An Introductory Handbook for Practitioners*. David Fulton Publishers, London.
- A. Kaukiainen, K. Bjorkqvist, K. Lagerspetz, K. Osterman, C Salmivalli, S. Rothberg, & A. Ahlbom (1999). The relationship between social intelligence, empathy, and three types of aggression. *Aggressive Behaviour*, 25, pp. 81-89.
- K. Kumpulainen, E. Räsänen, I. Henttonen, F. Almqvist, K. Kresanov, S. L. Linna, I. Moilanen, J. Piha, K. Puura, & T. Tamminen (1998). Bullying and psychiatric symptoms among elementary school-age children. *Child Abuse & Neglect*, 22(7), pp. 705-717.
- M. L. Lalumiere, G. T. Harris, M. E. Rice (2001) Psychopathy and developmental instability. *Evolution and Human Behavior* 22. pp. 75-92.
- A. M. Leslie (1987). Pretence and representation: The origins of "Theory of Mind". *Psychological Review*, 94 (4), 412-426.
- B. Maines & G. Robinson (1991). Don't beat the bullies. *Educational Psychology in Practice*, 7(3), pp. 168-172.

- A. N. Meltzoff (1988). The human infant as it homo imitans. In T. R. Zentall, & J. B. G. Galef (eds). *Social learning: Psychological and biological perspectives*, Oxford University Press.
- A. N. Meltzoff & A. Gopnik (1993). The role of imitation in understanding persons and developing a theory of mind. In S. Baron-Cohen, H. Tager-Flusberg & D. J. Cohen (eds). *Understanding other minds*, Oxford University Press, pp. 335-366.
- A. N. Meltzoff & M. K. Moore (1999). Persons and representation: Why infant imitation is important for theories of human development. In J. Nadel & G. Butterworth (eds), *Imitation in infancy*, Cambridge University Press, pp. 9-35.
- J. Nadel, C. Guérini, A. Peze, and C. Rivet (1999). The evolving nature of imitation as a format of communication. In J. Nadel, & G. Butterworth, Eds., *Imitation in infancy*, Cambridge University Press, pp. 209-234.
- A. N. Meltzoff & W. Wolfgang, Eds., (2002). *The imitative mind: Development, evolution, and brain bases*. Cambridge studies in cognitive perceptual development. New York, NY, US: Cambridge University Press.
- J. Nadel and A. Pezé (1993). What makes immediate imitation communicative in toddlers and autistic children? In J. Nadel and L. Camaioni, Eds., *New Perspectives in Early Communicative Development*, pp. 139-156, Routledge.
- J. Nadel & G. Butterworth (1999). *Imitation in Infancy*. Cambridge University Press, pp. 127-185.
- J. Nadel & A. Pezé (1993). What makes immediate imitation communicative in toddlers and autistic children? In J. Nadel & L. Camaioni, Eds., (1993), *New Perspectives in Early Communicative Development*, pp. 139-156, Routledge.
- J. Nadel, C. Guérini, & A. Pezé (1999). The evolving nature of imitation as a format of communication. In J. Nadel. G. Butterworth, Eds., *Imitation in Infancy*, Cambridge University Press, pp. 209-234.
- J. Nadel (2002). Imitation and imitation recognition: Functional use in preverbal infants and nonverbal children with autism. In A. N. Meltzoff, W. Prinz, Eds., (2002). *The imitative mind: Development, evolution, and brain bases*. Cambridge studies in cognitive perceptual development. New York, NY, US: Cambridge University Press, pp. 42-62.
- D. Olweus (1978). *Aggression in the schools: Bullies and whipping boys*. New York: John Wiley and Sons, Inc.
- D. Olweus (1993). *Bullying at school: What we know and what we can do*. Oxford: Blackwell Publishers.
- D. Olweus (1999). Sweden. In P. K. Smith & Y. Morita & J. Junger-Tas & D. Olweus & R. Catalano & P. Slee (Eds.), *The nature of school bullying: A cross-national perspective*. London: Routledge, pp. 10.
- A. D. Pellegrini & M. Bartini (2001). Dominance in early adolescent boys: Affiliative and aggressive dimensions and possible functions. *Merrill-Palmer Quarterly*, 47(1), pp. 142-163.
- A. D. Pellegrini, & J. D. Long (2002). A longitudinal study of bullying, dominance and victimization during the transition from primary school through secondary school. *British Journal of Developmental Psychology*, 20, 259-280.
- L. Peterson & K. Rigby (1999). Countering bullying at an Australian secondary school with students as helpers. *Journal of Adolescence*, 22, pp. 481-492.
- I. Pitchford (2001) The origins of violence: Is psychopathy an adaptation? *The Human Nature Review* 1, pp. 28-36.
- A. Pikas (1989). A pure concept of mobbing gives the best results for treatment. *School Psychology International*, 10, pp. 95-104.
- V. L. Quinsey, & M. L. Lalumière (1995) Psychopathy is a nonarbitrary class. *Behavioural and Brain Sciences*, 18, pp. 571.
- P. Randall (1997). *Adult Bullying: Perpetrators and victims*. London: Routledge.
- S. J. Rogers (1999). An examination of the imitation deficit in autism. In J. Nadel, G. Butterworth, Eds., *Imitation in Infancy*, Cambridge University Press., pp. 254-283.
- S. J. Rogers, & B. F. Pennington (1991). A theoretical approach to the deficits in infantile autism. *Development and Psychopathology*, 3, pp. 137-162.
- S. J. Rogers (1999). An examination of the imitation deficit in autism. In J. Nadel, G. Butterworth, Eds., *Imitation in Infancy*, Cambridge University Press, pp. 254-283.
- E. Roland (2000). Bullying in school: Three national innovations in Norwegian schools in 15 years. *Aggressive Behaviour*, 26, pp. 135-143.
- E. Roland (1993). Bullying: a developing tradition of research and management. In D. Tattum (Ed.), *Understanding and Managing Bullying*. London: Heinemann, (1st ed., pp. 15-30).
- K. H. Rubin, L. J. LeMare, & S. Lollis, S. (1990). Social withdrawal in childhood: Developmental pathways to peer rejection. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood*. Cambridge: Cambridge University Press.

- G. Salmon, A. James & D. M. Smith (1998). Bullying in schools: Self reported anxiety, depression, and self esteem in secondary school children. *British Medical Journal*, 317, pp. 924-925.
- D. Schwartz, K. Dodge, G. S. Pettit, & J. E. Bates (2000). Friendship as a moderating factor in the pathway between early harsh home environment and later victimisation in the peer group. *Developmental Psychology*, 36(5), pp. 646-662.
- P. Stephenson, & D. Smith (1989). Bullying in the Junior School. In D. P. L. Tattum, D.A. (Ed.), *Bullying in schools* (1st ed., pp. 45-57). Stoke-on-Trent: Trentham Books.
- V. Stevens, I. De Bourdeaudhuij, & P. Van Oost (2002). Relationship of the family environment to children's involvement in bully/victim problems at school. *Journal of Youth and Adolescence*, 31(6), pp. 419-428.
- J. Sutton & P. K. Smith (1999). Bullying as a group process: An adaptation of the participant role approach. *Aggressive Behaviour*, 25, pp. 97-111.
- J. Sutton, P. K. Smith, J. & Swettenham (1999). Bullying and 'Theory of Mind' : A critique of the ' social skills deficit' v iew of antisocial behaviour. *Social Development*, 8(1), pp. 117-127.
- D. P. Tattum, & D. A. Lane (1989). *Bullying in schools*. London: Trentham Books Limited.
- C. Trevarthen (1999). Musicality and the intrinsic motive pulse: evidence from human psychobiology and infant communication. *Musicae Scientiae*, pp. 155-215.
- C. Trevarthen, T. Kokkinaki, & G. A. Fiamenghi Jr. (1999). What infants' imitation communicate: with mothers, with fathers and with peers. In J. Nadel, G. Butterworth *Imitation in Infancy*, Cambridge University Press, pp. 127-185.
- I. Whitney & P. K. Smith (1993). A survey of the nature and extent of bullying in junior/middle and secondary schools. *Educational Research*, 35(1), pp. 3-25.
- J. H. G. Williams & A. Whiten, T. Suddendorf, & D. I. Perrett (2001). Imitation, mirror neurons and autism. *Neuroscience and Biobehavioral Reviews*, 25(4), pp. 287-295.
- D. Wolke, S. Woods, H. Schulz, K. & Stanford (2001). Bullying and victimisation of primary school children in South England and South Germany: Prevalence and school factors. *British Journal of Psychology*, 92, pp. 673-696.
- D. Wolke, S. Woods, L. Bloomfield, & L. Karstadt (2000). The association between direct and relational bullying and behaviour problems among primary school children. *Journal of Child Psychology and Psychiatry*, 41(8), pp. 989-1002.
- D. Wolke, & K. Stanford (1999). Bullying in school children. In D. Messer & S. Millar (Eds.), *Developmental Psychology*. London: Arnold Publisher.
- Kar2ouche: <http://www.kar2ouche.com/> last accessed 4<sup>th</sup> March 2003
- Victec: <http://www.victec.org> last accessed 4<sup>th</sup> March 2003

