From Attachment to Collaboration: Dissociation and Schizophrenia

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Summary

At first sight, dissociative identity disorder (DID) and schizophrenia seem as far apart as any two conditions could be. DID is almost entirely seen as an immediate consequence of severe early abuse (Fonagy & Target, 1995), whereas schizophrenia is largely seen as a genetic predisposition that does not surface until late adolescence or adulthood. However, this consensus view, this reality, falls apart when the surface is scratched. In particular, the genetic predisposition is minimal, and largely irrelevant to prevention, treatment, or healing.

Perhaps surprisingly, a diagnosis of DID is seen as controversial in spite of the consistency of diagnosis, yet the far less reliable diagnosis of schizophrenia is seen as science that is as hard and alien as the word itself. This misperception may be a consequence of the widely quoted 50% concordance rate for schizophrenia between identical twins (schizophrenia.com) (Frith and Johnstone, 2003). Were this to be true, it might indicate that schizophrenia is primarily a genetic disease and might respond to drugs and brain operations. I, like many others, would assume this figure is meaningless unless it is confined to twins reared apart, and I have joined many professionals in being surprised to find that there have been absolutely no experiments on identical twins reared apart from birth, let alone experiments that give this result (Leo, 2003).

Long-term studies yield the parsimonious but embarrassing conclusion that schizophrenia is primarily caused by the childhood social environment long before the adult breakdown. In the case of twins this includes the perhaps excessively social nine months before birth. The risk of becoming schizophrenic can increase by an order of magnitude in particular types of deprived childhood environments (Pinto, Ashworth, & Jones, 2008). Furthermore, this appears to have been consistently ignored over the past forty years, with the

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result that the social problems in many families of schizophrenics have been swept under the carpet of genetic determinism for all this time.

In the case of DID, the situation could be better, in that the abuse is often only too evident. However, the attachment of dissociative victims to their perpetrators can make it very difficult to intervene to protect them, let alone achieve criminal prosecutions (Sinason, 2002).

Up to about four years old, the child builds Bowlby's internal working model and acquires a sense of his/her own identity through strong one-to-one attachments to carers. He/she then starts the far more complex task of learning how the local community operates, that is, how the very human ability to collaborate constructively is achieved. Through to puberty, the child is building the 'internal social model' part of the internal working model. Although the environment from conception onwards and the overall genetic robustness of the child can have some effect, it is the primary hypothesis of this paper that it is the child's social environment from when they acquire a theory of mind, at around the age of three years, until about eight years old, when their moral sense is articulated, that contributes most to a later vulnerability to schizophrenia.

Progress is being made. Already, early parent–infant therapies are encouraging secure attachment between mother and child and may reduce the chance of later problems (Murray, 2005). A more psychological and less biological interpretation of schizophrenia may already be encouraging emotional literacy programmes in schools. These help young children learn the uniquely human art of language-mediated collaboration and thus reduce the chance of later breakdown. Sadly, these activities will be far more useful in preventing such disorders in twenty years' time than in helping with therapy today.

Causes and effects

I have used DID and schizophrenia as my comparison for simplicity. Although there are a wide range of dissociative disorders, DID is the most extreme and most clearly linked to early abuse. I have compared it specifically with mainstream schizophrenia because it is more likely than other psychoses to be caused by the childhood environment rather than by genetic or physical brain damage, hormonal imbalance, or recent events. The figures are striking, but perhaps unfamiliar. In one study of 139 women outpatients, 78% of schizophrenic patients had suffered childhood abuse compared with only 26% for panic disorder, 30% for anxiety disorder, and 42% for depressive disorder (Friedman et al., 2002).

DID is almost invariably a result of extreme and ritualized abuse of the baby and infant by attachment figures. The baby is effectively placed in a double bind situation from which the easiest escape for a brain that has not yet

connected up into an integrated whole is to split into two or more personalities separated by memory barriers. The post traumatic stress disorder (PTSD) like flashbacks of torture and pain are confined to emotional personalities (EPs), and do not disable the primary personality, the apparently normal personality, ANP (Van der Hart, Nijenhuis, & Steele, 2006).

The schizophrenia double bind (Bateson, Jackson, Haley, & Weakland, 1956) can start with any environmental hiccup from conception onwards that is then amplified by the to and fro of 'dysfunctional collaboration' among members of the immediate family. The primary components of this vicious circle have been given the technical terms 'communication deviance', 'high expressed emotion', and 'negative affective style', that is, communicating at cross-purposes, excessively emotional communication, and constantly frustrating and contradicting the child's emerging sense of how the rest of society works (Laing, 1960; Leff, 2001). Because the problem grows slowly, each member of the dynamic can see themselves as trying to help rather than making matters worse.

It is not until the child's emerging theory of mind reaches the 'false belief' level, usually in the fourth year, that the dysfunctional collaboration in the household becomes a major challenge to the child. One survival strategy, for a child too young to leave home, is to cut off from the contradictory behaviours. But the brain is still growing and desperately needs raw material to build its internal social model. The descent into schizophrenia is faster if abuse is part of the dynamic, which it often is (Read, van Os, Morrison, & Ross, 2005). Without an external environment that makes sense, all the child is left with are the imaginary friends, dolls, and toys that other children are putting away. This imaginary community starts to take on adult features; for instance, the Wizard of Oz is replaced by the CIA. (Sometimes the community is real. The CIA has confirmed that they have tried to train DID children as agents [Ross, 2006; Sinason, 2008].)

An extreme form of disorganized attachment, in which the baby senses it should not exist and fears it will be murdered, has been named 'infanticidal attachment' by Kahr (2007). Sachs (2008) has divided this extreme into an abstract version in which the carer only threatens death and a concrete one in which the child sees, or thinks it sees, murder of animals, children, or, most traumatizing, the child's sibling or twin. Kahr argues that the symbolic version is so common in dysfunctional families that it may well be a major early contributor to adult schizophrenia, perhaps via the vicious circle described here. Sachs shows how the concrete experience is often an integral part of ritual abuse and can lead to DID.

Unfortunately, attachment is for life, not just for infancy, and the carer's treatment is actually internalized as a lifelong feeling of worthlessness and a tendency towards suicide. This suicidal response may clarify the differing responses to abuse and neglect in infancy and middle childhood. Early abuse

and neglect can lead to dissociation and social hypervigilance, whereas abuse and neglect after the personality has integrated are experienced as dysfunctional collaboration and lead in the opposite direction, to isolation, failure to build an adequate internal social model, and vulnerability to schizophrenia from late adolescence onwards.

When the adolescent spurt in brain growth cuts in, all that is now learnt as a teenager is interpreted in terms of the internal social model acquired before puberty. It is too late to resolve contradictions with the real world. They are handled by cutting off from social interaction, just as some keep away from computers and others are repelled by money. Those parts of the brain that link what goes on inside the head with what goes on in society, primarily the executive functions, sensory cortex and hippocampus, mark time or measurably shrink. This shrinkage has usually been observed just before breakdown, and is often assumed to be genetic. However, a more coherent explanation is lack of use; the differences in shrinkage between schizophrenia and DID correspond to the different parts of the brain that are being underused or bypassed in earlier life. The hypervigilance of DID ensures that the executive functions and sensory cortex do not shrink (Perry, 2001).

With shrinking cognitive resources, keeping up appearances gets harder and harder but not impossible. Often, the strain shows as poor academic performance. Adolescents quickly learn to keep their mouths shut. They have learnt that it is not polite to talk about their sexual fantasies or mutually incompatible religious beliefs, and may assume that everyone else has equally bizarre internal social models that are also not talked about. In the case of children who have been sexually abused, it is not the dolls, but hallucinations of the abuser's voice that often fill the gap left by lack of contact with the outside world (Romme, Escher, & Dillon, 2009).

The new adult is well aware that life is safe within the immediate physical world of, say, railway timetables, well-defined jobs, and social roles. It is not usually until there is some form of social trauma in adulthood that the individual is taken way outside their comfort zone. The schizophrenic breakdown can occur weeks or years later. As they get older, people become more capable, and the chance of breakdown drops, and there must be many who are never stretched beyond their own breaking point.

In an ideal world, the cure is obvious: perhaps drugs to relieve unbearable stress and allow basic functions to be regained, then long-term therapy that allows enough time to build a revised internal social model that is more in step with local consensus reality. Alas, in the real world, it can be impossible to find drugs that calm without disabling and the therapy could take longer than a lifetime, even if it were affordable. Just as learning a second language takes far longer than when starting from scratch as a baby, so learning the grammar of consensus reality takes longer when an adult.

What are the issues?

In the recent past, the social contribution to schizophrenia has largely been ignored and the genetic contribution exaggerated. There appears to be a need to fit a disease–cure model, possibly due to fear of parents being blamed or concerns about the pharmaceutical industry. It may not be possible to address these impediments until there is an integrated and credible model of child development that takes Bowlby's attachment theory further and clarifies how the child's belief system and concept of community develop. Such a model would build on what is now known about brain development, social networks, and the evolution from instinctive ape to encultured human. It is, perhaps, 'collaboration theory'.

In the short term, it may be easier for trainee psychiatrists to accept the importance of early social factors if they learn about early attachment patterns, including the extreme disorganized attachment that contributes to DID, before they learn about schizophrenia and related psychoses.

In the decade before I joined the Clinic for Dissociative Studies, I had been exploring how future communications technologies could improve collaboration between people across different social groups, different cultures, and different countries (Leevers, 2001). I was inspired by the results of earlier communications technologies. For instance, there has never been a war between two countries that both had more than three telephones per 100 of the populations. If only the inoculation against adult schizophrenia was as simple as a mobile telephone for every child! In fact, we were constantly concerned about the lack of theory to support what we could do with the emerging technologies of social networking. Part of the problem was the difficulty of expanding our thinking from the 9–5 world of work to the twenty-four hour day and eighty year life of real human beings. There was little concern about how new media would influence the construction of the child's internal social model, even among the sociologists.

Over the past decade at the Clinic for Dissociative Studies, I have been discovering how primitive abusive cultures overwhelm the baby's defences, so producing dissociation and, in extreme cases, DID. But only recently did I realize that this babyhood process can usefully be compared with the middle childhood process of building an internal social model which, if disrupted, can lead to schizophrenia in adulthood.

Collaboration technologies

Leff has indicated (2001) how things get very much more complicated when the early one-to-one attachments of early childhood are widened to include the

child's n person family group with the $n^*(n–1)$ attachment links between them. It is only with the growth of electronic social networking tools that it is becoming possible to carry out the group equivalent of the 'strange situation' attachment assessment, that is, observing these $n^*(n–1)$ concurrent relationships and disentangling the processes that may lead to schizophrenia. Remember, we are rarely talking about thought disorder. It is ordered thought in a disordered or self-contradictory world, an unresolved mixture of childhood imagination and a dysfunctional local community.

Some progress is being made. A network of MIT MediaLab body-worn sociometers and the Meeting Mediator system is already making predictions about the outcome of real meetings only a few minutes after the meeting has started (Kim, 2008; Pentland, 2008). It may soon be possible to adapt such tools for twenty-four-hour use in during middle childhood.

A 'schizometer' for every child may sound like a 2084 Orwellian nightmare – but in a sense it has already happened; it is called the 3G mobile telephone. It could be picking up the amount of time people talk to the child, their tone of voice, number and emotional tone of nearby adults, how much the child is stuck at home or free to play with their peers, and in what way the child screams when asleep. The sociometer does much of this without needing to understand anything of what is actually said. The raw data is arriving but, in the case of childhood, the engineers do not yet know how to analyse it, and perhaps too many of the psychologists who should be grasping this opportunity are still searching for the gene in a haystack! Of course, the analysis has to be carried out automatically and it has to take place in a therapy, rather than a blame, culture. Such early intervention could prove far more widely available, less expensive, and more effective than the current pre- and post-breakdown therapies. If just those families who have a schizophrenic member and who want to protect their own children used such a device, then it might be possible to prevent the majority of future breakdowns!

There is also hope from a related new technology. In building social networks on the web, designers have had to understand how the most complex social networks work. This started with finding the sizes of social groups. In the days when computer chips could only address the 256 numbers of an eight bit binary number, I designed the Executel, the first personal digital assistant. A quick study showed that the average personal address books had 150 entries, and so we considered it safe to go-ahead with a 256 name limitation. It was not until more than ten years later that this number became academically respectable when, in 1993, Dunbar showed that 150 matched the size of the trust group (the number of people with whom one can maintain stable social relationships) in a species with our brain size and neocortex ratio (Dunbar, 1998).

Social networking technology has advanced dramatically since then. Similar *ad hoc* approaches are being followed in designing networked virtual worlds,

such as Second Life, although little in the way of new theory has emerged yet. We now have the technology to record the total childhood lifetime, not just the hour a week of baby observation. Roy, of the MIT MediaLab, has made a complete audiovisual record of every moment of the first three years of his son's life (Roy et al., 2006). Already this exercise is shedding light on how speech emerges and how the baby learns for itself when no one else is around. Such technology might provide an insight into how older children build their internal social models.

The huggable interactive teddy bear is another technology running way ahead of theory. Although initially designed for the elderly and lonely, it may offer even more to the isolated child in a dysfunctional collaboration family (Stiehl et al., 2006).

The global network

Technology giveth and technology taketh away. If this view of schizophrenia is correct, there is a danger that the physical isolation of the next generation of 4–10 year olds that is enabled by mass media entertainment and electronic social interaction could contribute to even more schizophrenia.

Every other animal survives through instinctive behaviours. Over the last few million years our predecessors have grown a brain with executive functions that are so powerful and general purpose that the generational transmission of culture has taken over from DNA as the primary survival mode. It can be argued that one new instinct, the moral instinct, has emerged, but this is just as likely to be an emergent property of a species with no significant predator, a huge well-connected neocortex, and an increasing ability to gossip and empathize. After several close brushes with extinction this species has suddenly become so successful that in the last 70,000 years our numbers have increased a millionfold.

However, something very dangerous has happened in the past few decades. The child's brain is no longer being shaped by million-year-old instincts, or by the culture of the parents' generation, but by the immediacy of mass media and, via multimedia social networks, by other members of their own generation. Big Pharma has been assumed to be behind the failure to recognize the social causes of schizophrenia. Big Media is likely to prove as resistant to concerns about the way mass media and social networking are shaping the brains of our children. And we are going naked into the negotiating room. We do not have a clear way of expressing how the child's brain structures itself around the culture of the community.

The possible good news is that the new forms of cultural transmission are inherently global. The young are acquiring much the same culture, whether

good or bad, and the cultural conflicts, whether religious, racial, or economic, that continue to cause so much suffering and death may slowly fade away. If we get it right, the conspicuous consumption of unsustainable goods will decline and the new culture will be focused on self-fulfilment, not GDP. If we get it wrong, we will bring the whole of the human race to a rather warm finishing line, all at exactly the same time – a race that everyone will win but no one will be the winner.

A brief history of schizophrenia

It is extraordinary to see how the care of schizophrenics changed as traditional society was usurped by the Cartesian myth of the machine age. Until the 1800s, treatment was inevitably in the community or through care in protected environments, such as monasteries and workshops. It was known as moral therapy, therapy with a usually religious agenda, and, as such, was alien to the scientifically trained psychiatrist. However, the discharge rate was high, 70% (Silver, Koehler, & Karon, 2004).

Mechanical or 'scientific' thinking reached psychiatry with industrialization. The human machine could be repaired by locking it up and hitting it in the right place at the right time. The weapons were cold baths, electric shocks from 1938, and, in the 1950s, drugs. Indeed, in South Africa, ECT was considered such a valuable new treatment that black patients in asylums were not given it, only whites (Swartz, 1995).

Given that schizophrenia is seen by some as the cost of acquiring language, this was effectively returning the patient to his or her non-verbal, ape-like predecessor. All that these treatments achieved was a breathing space, but at the cost of leaving the patient with little more than breathing as a lifestyle. On top of this there was an enormous economic cost: discharge rates dropped to 30%. In the 1950s, there was a big sigh of relief as physical treatments were superseded by the new drugs, but there was little improvement in the discharge rate.

As the generation brought up by parents traumatized by the Second World War reached maturity in the 1960s, there was widespread rejection of parental values – the 'death of the family'. Unfortunately, the bathwater was thrown out with the baby. The importance of a caring family was rejected by those who were babies when their developmental bathwater was families traumatized by war.

This denial of family and society did have benefits in liberating the marginalized, single parents, gays, and lesbians, but there were losses. In 1975, the psychiatrist Steven Hirsch failed to find a significant difference between schizophrenic families and control pairs (Hirsch & Leff, 1975), and, by throwing

away too much, society was being softened up for Thatcherism/Reaganism – the 'no such thing as society' low point (Thatcher, 1987).

It became fashionable to worship hard science and disregard social science, interestingly compatible with the business goals of Big Pharma and the ambiguous political agenda of locking away those who might disturb the status quo. The economies of scale that permeate the pharmaceutical industry but cannot spread to one-to-one talk therapy contributed to the ever more desperate search for the magic bullet: a drug that targeted a genetic or hormonal oddity and avoided the need to understand the history of the patient.

Those who proposed a genetic answer were well funded and, as a side effect, an enormous amount has been learned about the way the brain works. However, because the key to schizophrenia appears to lie in childhood, no observation of the prodomal or schizophrenic brain was going to come up with an answer.

In a recent interview, Robin Murry, Institute of Psychiatry, London, said,

> Schizophrenia researchers are deeply ashamed of the era when parents were accused of having contributed to the cause . . . the specious argument that the way parents communicated with their children drove them mad. I think biological psychiatrists were so ashamed of that episode that we did not study family factors and the possibility that they could contribute. We just avoided it. (Murry, 2005)

This raises concern on a number of levels. First, it is being stated long after numerous studies were showing that dysfunctional collaboration and family deprivation were major contributors to schizophrenia. Second, he is talking as though it is only parents who should be protected, not the whole family. It is the young and vulnerable child who will suffer most, typically for twenty more years than the parents.

It is important that the mature, experienced parents of adult sufferers are not blamed for a child-rearing style they learnt from their own parents and applied when they were young and vulnerable, and at a time when the experts were assuring them that their own behaviour – the muddles, the arguments, the silences, the divorces – had no effect on their children.

Ross (2006) has recently tried to improve the situation by separating environmental (dissociative) schizophrenia from genetic schizophrenia. Although this seems to confuse the issue, his game plan may be to ensure that at least some environmental causes of schizophrenia are included in *DSM V*.

In *The Unbalanced Mind* (2001), Leff describes the state of the art in social psychiatry and makes a carefully argued and irrefutable case for the social causes of schizophrenia. He draws on his own role in identifying causes such as communications deviance and negative affective style and points towards future social networking technologies as a way of reducing the risks of schizophrenia in the future.

Read has taken Leff's careful social approach even further. His tabloid clarity of 'schizophrenia is entirely social' has impact, and such impact appears to be needed because some parts of biological psychiatry had sold so much of its soul to the geneticists. It is important to note here that there are some children who, through innate constitution and other vulnerability, have developed schizophrenia without a negative input from the immediate family.

Perhaps the word schizophrenia is part of the problem. This alien word alarms an English-speaking audience. It has the same terrifying associations as the word 'cancer'. It implies a terminal medical condition, an infection that has come out of the blue. If the primary cause of the much later adult breakdown is a cumulative, multi-year drifting away from consensus reality during childhood, then perhaps schizophrenia could be replaced by a more descriptive title such as 'consensus reality disorder'. As such, it could join the long list of similarly informative labels, such as dissociative identity disorder.

Dysfunctional collaboration in the family

Goldstein's UCLA high-risk project (1987) is remarkable for adopting the very contemporary approach of looking for generational transmission of vulnerability to schizophrenia. Sixty-four families who had come to a clinic because at least one adolescent child was showing disturbed behaviour were monitored for fifteen years.

The families were ranked by the three dysfunctional collaboration criteria – communication deviance, negative affective style, and high expressed emotion. To obtain meaningful results with only sixty-four families, it was necessary to select after the children had reached adolescence and were already showing troubled behaviour. Implicitly, the study was making the reasonable assumption that the adults' form of collaboration had not deteriorated since early childhood.

Evaluation at about the age of thirty showed that, in the twenty families with low or intermediate communicative deviance and positive or intermediate affective style, only one at-risk child had schizophrenic spectrum disorder, but twelve had another psychiatric disorder. In the thirty-one families with high communication deviance or negative affective style, fourteen children had schizoid spectrum disorder and ten had another psychiatric disorder.

This strongly indicates that the style of the family had little influence on other types of psychiatric disorder, but enormous influence on schizophrenic spectrum disorders.

The combination of extreme communication deviance and negative affective style increased the probability of schizophrenic spectrum disorder by a factor of eight. If we combine these results with the few other studies of family

background, they point to an order of magnitude increase in schizophrenia relative to other psychoses if the child is brought up in a dysfunctional collaboration environment.

These results are consistent with what could be called an iterative vulnerability stress model. Growing up consists of a sequence of stresses or challenges, each of which creates a new strength or a new vulnerability. The very earliest challenge may have been responding to the stress hormones in the first trimester of a problematic pregnancy, or, at birth, a personality that sets the child up to be a disappointment to the parents. However, any ultimate effect in adult schizophrenia would be unmeasurable at birth. The vulnerability would only grow if the family behaves inappropriately at later challenges in childhood. The most critical of these is probably learning the first language. Dysfunctional collaboration in the family makes this more difficult, so the child is particularly vulnerable when it meets the theory of mind challenge in the fourth year.

The fallacy of the 50% concordance rate

Almost every psychiatrist I talk to claims that schizophrenia is primarily genetic, yet almost every therapist claims the social environment dominates. I look for the source of the widely quoted 50% concordance rate for schizophrenia between identical twins and find that there have been zero studies of identical twins brought up independently from birth (Leo, 2003). There have only been shaky extrapolations from very small numbers, primarily in work that started in the 1930s in Finland and Oregon. Both sterilized those with schizophrenia at the time. Given the flexibility of the definition of schizophrenia, this must have substantially distorted the statistics.

Tiernari's '... Finnish study is considered to be by far the most methodologically sound and comprehensive schizophrenia adoption study' (Joseph, 2004). Tiernari found a 5.1% level of schizophrenia in adopted away children of schizophrenic mothers compared with 1.6% in a control group of adopted away children of normal mothers. This is not statistically significant given the small numbers involved, seven and three, and the significant omissions from even the latest of the many reports on this project. The process and time of adoption are not discussed. In at least one case the adoption occurred when the child was four. There is also no mention of the authority's policy on matching adopters' social position with that of the natural mother. At the extreme, this might include matching almost schizophrenic adopters with late adoptees from schizophrenic mothers.

Even the mildest of social matching would introduce a substantial bias. Given the UK results on black immigrant groups, if black children are adopted

by black parents in the same immigrant group this could increase the correlation between birth mother and adopted away child by a factor of ten (see below), completely swamping Tiernari's already statistically insignificant increase of about three times.

If the importance of generational transmission is ignored in these studies, then another risk factor slips in. Those with schizophrenia and their siblings are going to feel most at home with partners from similar emotional backgrounds. Thus, children of dysfunctional collaboration families are likely to marry and continue such an environment for their own children. This may be enough to explain the apparent onward genetic transmission. What is tragic is that siblings who feel helpless in the face of genetic determinism do not realize that avoidance of schizophrenia in their own children is largely within their power.

We are talking big numbers here. A substantial proportion of the perhaps fifty million people with schizophrenia worldwide may be receiving inappropriate treatment because they are considered to have a genetic illness. A good picture of the current genetic perspective can be found at Schizophrenia.com, a website that appears to respond positively to the discovery of each new gene–schizophrenia link. However, since there is no evidence that schizophrenia can occur without some subsequent social priming during childhood, the more genes there are, the less relevant each one is. The only 'good' news is that those that have absolutely no genetic markers can be left in dysfunctional collaboration households, knowing that their lifelong suffering will never be stigmatized with the label schizophrenia. Ethical? Progress?

Schizophrenia in deprived communities

From the early 1960s onwards, a few studies were indicating that the level of schizophrenia of young people in immigrant Afro-Caribbean communities in the UK was about ten times higher than the UK average, (Pinto, Ashworth, & Jones, 2008). This evidence appears to have been both ignored and repeatedly revisited, perhaps in the hope that the decimal point would move to the left.

Read (2004) records an incredible list of desperate attempts to explain away these figures within the genetic paradigm. Ignoring the issue was the most widespread. These results were never treated as a cry for help from a community that was perhaps still carrying the generational scars of slavery, let alone current racism and xenophobia. At the very least, the psychiatric community could have shouted from the rooftops that schizophrenia could not be primarily genetic because it could increase by a factor of ten simply by living in a disadvantaged community. Therapeutic programmes could have been introduced that would have dramatically reduced the incidence of schizophrenia in the next two generations.

Pinto and colleagues outline the factors that may contribute to increased schizophrenia in Afro-Caribbeans: families are more Christian and western than Asian and other immigrants, so the shock of racism to a young child at the theory of mind moment is greater, families are more fragmented than English or Asian families, and employment opportunities are more restricted.

These studies show that the social environment can increase the 1% schizophrenia average by a factor of ten. The genetic predisposition is something that, as yet, cannot be measured, and it really must contribute less than half the average 1% level of schizophrenia worldwide, a difference of at least twenty times – as NICE an evidence base as anyone could wish to find! Thus, it is hard to understand why, during the 1990s, there were forty-three times more schizophrenia studies focused on the biological than on socioeconomic status (Read, 2004). Given that it is easier to change environment than change genes, surely it should be the other way round?

Clearly, this almost psychotic construction of an alternate reality is worthy of study in itself. In 'It's all done with smoke and mirrors', Boyle (2002) sees it as a set of tricks worthy of Karl Rove himself. Perhaps they are being used to avoid the humiliation of accepting that we are not living in an ideal society? The primary trick is not the space reversal of the mirror, but time reversal in childhood. When looking back to perhaps twenty years before the breakdown, it is easy to see the child's brain damage as the cause of family disharmony rather than the effect, especially when listening to a mother who may have genuinely forgotten chasing the child round the kitchen with a carving knife.

Schwartz (2008) sees the problem as the reluctance of society to accept attachment theory and the very human fear that to truly understand the childhood suffering of others is to risk being dragged into the same *Huis Clos*. He is not helped by the fact that Bowlby did not include disorganized attachment in the initial formulation of his theory. Infanticidal attachment, the extreme form of disorganized attachment, was only proposed by Kahr in 2007 although he did propose the link between infanticide and schizophrenia much earlier (Kahr, 1993). Sachs (2008) split the two infanticidal forms into concrete and abstract. This paper proposes that suicidal attachment may be a more descriptive title, and that the concrete form can lead to early DID while the abstract form prepares the ground for adult schizophrenia.

The past six million years

Having arrived at the unlikely hypothesis that schizophrenia is as socially dependent as DID, it may be useful to explore how we acquired these vulnerabilities.

Thirty-five years ago, DeMause (1974) provided an incredibly coherent and well researched account of the psychological reasons for the unconscious

brutality of most tribal societies and how we have progressed from their 'infanticidal mode' culture (one rarely found now except in ritually abusive communities) to what he calls the 'helping mode' of securely attached members of prosperous western communities. It is interesting to note that in his later work he split the infanticidal culture into early and late, roughly corresponding to the concrete and abstract divisions of Sachs or the pre-Abraham and post-Isaac times of the bible. His helping mode gives hope, but perhaps relies a little too much on the need for economic prosperity – but he was writing thirty-five years ago, long before we had become so conscious of the finite limits of the planet. For more on where we might go from here please see 'From atoms to bits: culture, collaboration and global sustainability' (Leevers, 2004).

Thirty-five years ago we were far less secure about our own human identity and needed to see ourselves as fundamentally different from other animals. The clues to the emergence of our unique characteristics, moral sense, tool making, and collaboration, from what is now being discovered in animals as far apart as scrub jays and whales were overlooked, and, as such, the co-emergence of collaboration and language was left to the computer scientists to discover. A first step was Axelrod's trail-blazing book, *The Evolution of Cooperation*, on how collaboration evolves, albeit in computer-based artificial societies, not by observing ourselves (Axelrod, 1997).

If we had a good historical record of the past six million years, since we split from chimpanzees and bonobos, this section would be more useful, and longer. Rather than worry about aquatic apes, the whites of our eyes, and so on, I will confine myself to a few points about the transition from the genetic transmission of behaviour in animals to the generational transmission of culture in humans.

We have come a long way in this time – gained an upright posture, lost our hind hands, and added an opposable thumb to our forehands. We have developed a 'prehensile' neocortex able to think just about anything, and discovered how best to connect very large networks (of neurons) long before the computer engineers. (There are still fewer computers in the world than there are neurons in one human head.)

We have wisely decided to pop out of the womb prematurely not only so that our brain can grow and grow and grow, but also so that we can leave its detailed structure until we have discovered what sort of society we need to fit into.

Perhaps the most unpleasant aspect of this freedom to think is the burden it has placed on women: the narrow hips that are best for escape conflict with the wide hips necessary for easy childbirth, and the early birth means that the baby is far more vulnerable than the newborn of other apes.

The grandmother was probably the first to be co-opted into providing assistance (Blaffer Hrdy, 2009, pp. 240–243). This allowed the mother to give birth

more frequently, every two years instead of the 4–5 year interval typical of our nearest neighbours. Mothers no longer stayed with their babies all the time, unlike ape mothers, who may continue to carry the baby around for several days after it has died. But if an ape mother dies, no other ape will take care of the orphan and it invariably dies. There is little sense of collaborative child-rearing within the wider ape community. Baby apes attach with ferocity, but can rarely attach to anyone but the mother.

At the stage when the baby ape is still inside the dark and cramped womb, the baby human is surrounded by the socially complex household. This is an environment where a smile triggers immediate comfort, a key survival factor given that the nearest sibling is only two years older and the chance of either child surviving to reproduce in a stable pre-contraception tribal society is only about half that of an ape.

And with this social enrichment comes danger. We may have gained a moral sense but we have been losing the other instincts that keep animals on the straight and narrow. As each instinct is lost, so generational transmission steps in to pick up the pieces. The pace quickens and the species can only survive by speeding up trust building. The trust that grew slowly through hours of grooming in apes is replaced by the four times more efficient trust building through gossip – from split-ends to *EastEnders* in only six million years (Dunbar, 1996).

Ritual abuse and DID

Dissociation seems to have been the primary defence against unbearable memories of trauma in the past few million years, partly because earlier generations saw no point in hiding the brutality of life from the very young. Remember that more than half of children died before the age of five until very recently, and children had to watch public hangings and other forms of institutionalized torture. There is little information on schizophrenia in tribal societies, but what there is indicates that the rate is not exceptionally high: the social networks are stronger in small preliterate communities and early exposure to suffering reminds the child of the survival value of learning how to collaborate in their local social network.

Perhaps acknowledgement of ritual abuse could not emerge until the full level of child abuse had been recognized. Unfortunately, when this stage was reached, about fifteen years ago, the UK was still not seen as a multi-cultural society. Religious ritual was seen as specifically Christian and the word Satanic was used instead of the more accurate term 'ritual'. This triggered a gut reaction of 'shoot the messenger' as opposed to the perhaps more Christian reaction of 'save the children'. Nowadays, attachment theory in particular helps us to see how a ritual abuse culture is just one instance of the generational

transmission of disorganized and infanticidal attachment. Typically, an authoritarian father thinks his behaviour is in accordance with God's will. His abused and helpless wife displaces her fear of the husband, whom she also loves, on to a sadistic god, and acts out her anger at being abused on to the weaker child.

The primary carers of an infant who develops DID fluctuate between different levels of sadism and hatred or, if dissociative themselves, switch between different states. The infant, as with all infants, has no choice but to internalize the culture of its immediate family. This is reinforced by the fact that involuntary switching between two or more personalities effectively ring-fences the memories of extreme abuse. This ability is actually a fundamental manifestation of our human uniqueness. Our brain, incomplete at birth, can grow to reflect and/or defend against its cultural environment in a way that no other animal's can.

In adulthood there can be a crisis analogous to the schizophrenic breakdown. It can be caused by realizing that the dysfunctional collaboration of the family and/or cult is completely out of step with the rest of society. Most people with DID, especially those who seek help, have not had their innate humanity totally destroyed and do not become abusers.

Conclusions

Writing this paper has been a long journey. It started with my concern about individuals who were labelled as having a high probability of developing schizophrenia. Then my concern grew when I found that Afro-Caribbean studies had been ignored for apparently well intentioned reasons, but which, on closer analysis, could be seen as a way of covering up the psychological consequences of social deprivation. The concern was exacerbated on realizing that the key genetic results were effectively based on discredited eugenics thinking. The final shock was realizing that I only had to talk to my closest colleagues to realize how the infanticidal introject and suicidal attachment provide a window into the birth of humanity.

Relating schizophrenia as a social networking disorder to DID as an early attachment disorder may clarify how prehumans became increasingly vulnerable to their emotional environment as generational transmission superseded instinctive behaviour. Only by acknowledging the unintended contributions from parents and others will it be possible to identify the most effective ways of reducing schizophrenia in the next generation. Preventing DID should be a very much easier task because it is primarily a result of explicitly criminal activities inflicted on the baby and infant. Unfortunately, this may also have to be left to the next generation, because very few of today's victims can face giving evidence against their attachment figures. If they do, they are not helped

or heard, as police and courts are largely uneducated about DID. Without 100% surveillance and rapid response police teams, we will never be able to protect such victims from revenge attacks (100% surveillance and rapid response police teams are, of course, available for traffic crimes – both vehicles and drugs). If victims come forward in a therapeutic, no-blame environment, then they can rebuild their own lives and their children can be protected from a new cycle of abuse, and we can move forward.

The generational transmission of collaboration rather than conflict is the unique strength of this species. So far it has allowed us to grow from a few thousand to seven billion in only 70,000 years, has extended average lifetime from about forty-five years to more like eighty years, and has reduced violent deaths from around 15% to under 1% (Keeley, 1996), (LeBlanc, 2004). But, in a planet that is getting too hot and too crowded, the next generation may require the far faster, but riskier, instant transmission of culture via their peers, mass media, and social networking technologies.

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