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## **Simon Baron-Cohen: 'Thinking differently about autism\*\*'**

**By John Stone**



**Simon Baron Cohen, Psychologist**

I fear things are different between the United States and Little Britain. In the week we learnt that the Inter-Agency Autism Coordinating Committee (IACC) is to commit millions of dollars of research money to investigating the potential environmental and medical triggers for autism, ([David Kirby, HERE](#)) and a re-examination of the California autism data revealed 7 to 8 fold real rise in incidence between 1990 and the present ([UC Davis HERE](#)) in the United Kingdom, Prof Simon Baron-Cohen, of the Autism Research Centre in Cambridge (said sometimes in the UK media to be the world's greatest authority on autism) is examining the prospects for screening in the womb for autism.

A statement on our National Autistic Society homepage (January 7, 2009) welcomes such research and emphasises its alleged positive advantages, such as being able to plan better support earlier for infants with the condition.

“Without the right support autism can have a profound and sometimes devastating effect on those affected by it. Screening to identify autism at an early stage has the potential to radically improve the quality of life if the right environment, education and support can be put in place as soon as possible.” ([HERE](#))

Although early diagnosis offers some advantages, suggesting that it can “radically improve” anything about autism is a wild overstatement. What is actually needed for radical improvement in this regard is a thorough assessment of demand for services on a population basis, so that full support can be obtained at the point of diagnosis. It seems altogether fanciful that the specific needs of an infant 3 years hence could be diagnosed in the womb.

However, the article by Baron-Cohen on the BBC website to which it responds has a very different thrust - 'Autism test could hit maths skills'. Baron-Cohen writes: “But assuming such a test is developed, we would be wise to think ahead as to how such a test would be used. “If it was used to 'prevent' autism, with doctors advising mothers to consider termination of the pregnancy if their baby tested 'positive', what else would be lost in reducing the number of children born with autism?”

“Would we also reduce the number of future great mathematicians, for example? “  
[\(BBC HERE\)](#)

It is abundantly clear that the proposition he is addressing is that foetuses at risk from autism might be aborted (or possibly treated). What apparently concerns Baron-Cohen in presenting his argument against a eugenic solution to the autism question is that because there is an association between autism and mathematical skills screening out autism might also prove damaging to the gene-pool in other respects. But if it was shown that you could weed out autistic foetuses without threatening the mathematical skills of the population, what then?

While I don't believe that there will ever be any effective genetic markers for autism, if you happened to be autistic, or had a loved member of your family who was, you might just find this sentiment chilling and unrepresentative of your concerns. Given the air of embarrassment in the NAS response – which shifts the ground of the discussion - perhaps they ought to consider whether Baron-Cohen should remain as one of the organisation's vice presidents?

On top of this we discover that the University of Bath's investigation into the sexual preferences of autism fathers - which has caused much mirth both in the columns of the Daily Mail and on Age of Autism - was also undertaken under the auspices of the Cambridge Autism Research Centre, and inspired by Baron-Cohen's Assortative Mating Theory. A poster on Age of Autism, “Jack” reproduces an email circular he received from Baron-Cohen's Cambridge Autism Research Centre:

“Thank you for being registered with the Cambridge Autism Research Centre volunteer database at [CAMBRIDGE AUTISM RESEARCH CENTRE](#) We have been asked by Dr. Mark Brosnan at the University of Bath to send the advert below to parents of children diagnosed with an autism spectrum condition. Please rest assured that none of your details have been passed to Dr. Brosnan.

“If you would like to take part in the project, please go to the website <http://www.drianwalker.com/parentsurvey/>

“If you have any questions about the project, please contact Dr. Brosnan [M.J.Brosnan@Bath.ac.uk](mailto:M.J.Brosnan@Bath.ac.uk) Best wishes, Sally Wheelwright Deputy Director Autism Research Centre

“BATH UNIVERSITY ASSORTATIVE MATING PROJECT”

“We are emailing to invite you to take part in some exciting research being conducted by researchers at the University of Bath. We are examining psychological similarities and differences between couples (such as husband and wife or 'partners'). We are focusing upon partner preferences for body shapes and, where the couple have children, we are also focusing on how these psychological similarities and differences may relate to family structure (e.g. number of biological sons and daughters) and autism spectrum conditions, such as autism and Asperger Syndrome. The body shape images include photographs of women in bathing suits and cartoons of naked men and women from behind. The images have all been used in research before but if you are likely to find them offensive please do not take part. The questionnaire does not take

long and we would be very grateful if you would take part in this project by clicking on the web link below (you may need to cut and paste the link into your search engine). Anyone can take part, as long as you are 18 years of age or older. More information will be provided after the questionnaire is completed. Many thanks in advance. ([PARENT SURVEY HERE](#))/ “ (see [AGE OF AUTISM ON THE STUDY HERE](#))

Now, not only is this apparently feeble minded and trivialising a serious issue – and using public money to boot – it could not begin to furnish any useful explanation of a 7 or 8 fold rise in the incidence of autism since 1990. However, this seems to have been one of the motivating ideas behind the hypothesis - as recently as November 2006 Baron-Cohen wrote:

“Autism has skyrocketed from a rare condition of only four in 10,000 children in the 1970s to an astonishing 1 percent of children today. This massive change undoubtedly reflects improved recognition of the condition and consequent growth in services. In addition, even the way in which we conceptualize autism has changed, from being a discrete category in the 1970s—you either had autism or you did not—to a spectrum condition that acknowledges degrees of autism. Therefore, the boundary between those who have the diagnosis and those who do not is a fuzzy one, leaving room for clinical interpretation.

“But could the apparent rise in the prevalence of autism also in part be the result of assortative mating of two strong systemizers? Is it possible that over and above the effects that social and clinical factors have had, assortative mating of two strong systemizers has become more frequent?

“Consider that in the late 1950s, less than 2 percent of undergraduates at MIT (a university that caters to people with good systemizing skills) were women. Today female enrollment has jumped to 50 percent. This microcosm is just one example of how society has changed in ways that would bring strong systemizers into greater proximity. Over the same period, air travel has also meant far greater opportunities for people from widely differing backgrounds to meet, possibly brought together by their common interest in systems. Finally, over this same timeframe, individuals who are systemizers have enjoyed new employment opportunities as the result of the digital revolution. Where 50 years ago a strong systemizer might have found a job as an accountant, today every workplace needs computer-savvy employees, and the financial rewards for good systemizing skills can be immense.

“The contribution of assortative mating to the changing prevalence rate of autism is difficult to study. It is also controversial: the idea that a child with autism is the result of the unique mixing of genes from parents who share a common feature sits uncomfortably with those who want to believe the cause of autism is purely environmental. But I believe the preliminary evidence in support of the theory warrants further research. We stand to gain valuable insight into the cause of autism; and given the links between autism and the capacity to systemize, a trait that has helped humans to dominate the planet, we stand to gain a better understanding of human nature.”([SEED MAGAZINE HERE](#))

On the other hand, drawn into the Observer dispute, over the causes of the rise in autism in July 2007 he wrote:

“My view is that any apparent rise is likely to be driven by better recognition, greater awareness, growth in services, a widening of the definition of autism and a shift towards viewing it as a spectrum rather than a categorical condition.”  
[\(GUARDIAN HERE\)](#)

But this does not seem to be a matter he can resolve: he wrote in the Guardian in 2005 in his role as “a leading thinker”:

“I believe that the cause of autism will turn out to be assortative mating of two hyper-systemisers. I believe this because we already have three pieces of the jigsaw: (1) that fathers of children with autism are more likely to work in the field of engineering (compared to fathers of children without autism); (2) that grandfathers of children with autism - on both sides of the family - were also more likely to work in the field of engineering (compared to grandfathers of children without autism); and (3) that both mothers and fathers of children with autism are super-fast at the embedded figures test, a task requiring analysis of patterns and rules. (Note that engineering is a chosen example because it involves strong systemising. But other related scientific and technical fields would have been equally good examples to study.)

“We have had these three pieces of the jigsaw since 1997, published in the scientific literature. They do not yet prove the assortative mating theory. They simply point to it being highly likely. Direct tests of the theory are still needed. I will be the first to give up this idea if it is proven wrong, since I'm not in the business of holding on to wrong ideas. But I won't give up the idea simply because it will be unpopular to certain groups (such as those who want to believe that the cause of autism is purely environmental).”

[\(GUARDIAN HERE\)](#)

But note the straw argument. No one has been trying to argue that the causes of autism are “purely environmental”: what many of us have been arguing against is the notion that it is purely “genetic”. If Baron-Cohen has no dispute with the causes of autism being partly environmental, what grounds can he have for either dismissing environmental factors as driving force behind the increase of autism, or dismissing the circumstantial case that there has been a massive rise in autism. His point makes no sense. Given two paragraphs to lay out his ideas he emerges not as a leading thinker, but a leading muddler.

And this leads us to a final point about the genetic markers of his recent BBC article. What many of us fear - apart from anything else - is that such markers would really be markers not for autism, but susceptibility to environmental damage, and this is a point which any proper rehearsal of the arguments ought to address (and Baron-Cohan's doesn't).

One point to emerge from all this is how very detached all these ideas from the preoccupations of families struggling autism from day to day. Baron-Cohen could never have seemed further adrift than when he wrote in the Independent: “Whichever country I travel to, attending conferences on the subject of autism, I hear the same story: autism is on the increase. Thus, in 1978, the rate of autism was four in 10,000 children, but today (according to a Lancet article in 2006) it is 1 per cent. No one quite knows what this increase is due to, though conservatively it is put down to

better recognition, better services, and broadening the diagnostic category to include milder cases such as Asperger's syndrome.

“It is neither proven nor disproven that the increase might reflect other factors, such as genetic change or some environmental (eg, hormonal) change. And for scientists to answer the question of what is driving this increase will require imaginative research comparing historical as well as cross-cultural data. Some may throw up their hands at this increase in autism and feel despair and pessimism. They may feel that the future is bleak for all of these newly diagnosed cases of autism. But I remain optimistic that, for a good proportion of them, it has never been a better time to have autism.

“Why? Because there is a remarkably good fit between the autistic mind and the digital age. Computers operate on the basis of extreme precision, and so does the autistic mind. Computers are systems, and the autistic mind is the ultimate systemiser. The inherently ambiguous and unpredictable world of people and emotions is a turn-off for someone with autism, but a rapid series of clicks of the mouse that leads to the same result every time that sequence is performed is reassuringly attractive. Many children with autism develop an intuitive understanding of computers in the same way that other children develop an intuitive understanding of people.

“So, why am I optimistic? For this new generation of children with autism, I anticipate that many of them will find ways to blossom, using their skills with digital technology to find employment, to find friends, and in some cases to innovate.”  
[\(INDEPENDENT HERE\)](#)

It seems to me that these are the remarks of someone who has made a very nice career out of it all, but they also could be designed as a “feel-good story” for people who know nothing whatever about it (never mind the bizarre elision between “environmental” and “hormonal”). No one who reads a Baron-Cohen pronouncement about autism from outside the autism world will ever feel that there is anything to worry about – the psychological distress, the physical pain, the devastated and exhausted families, the immense and astronomically costly institutional problems, the terrible parentless future of millions of helpless adults – all our experiences and concerns have been marginalised and sanitised for public consumption. Meanwhile, if you compare one statement with another the intellectual project looks very confusing

What is alarming, of course, is that geneticists could discover markers which in fact are for susceptibility to environmental damage, rather than for autism itself – and we would end up aborting fetuses to avoid them being vaccine damaged. The NAS would do far better to issue a statement welcoming the IACC grants. We have entered sick territory.

\*’Thinking differently about autism’ is the title of a continuing NAS campaign to present a positive image of autism.