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COMMENTARY

Invited commentary: the politics of human embryo research and the motivation to achieve PGD

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Abstract The idea that biomedical research can be influenced by political events implies a teleological basis indicating that scientific achievements occur because there is a political need. Such a concept appears to have been the reason PGD was fast-tracked to emerge as a biomedical achievement well before its due date, occurring at a time when human embryology was still struggling to reach a reasonable level of efficiency and become adopted as a clinically relevant advance around the world. One story underlying the historical achievement of the HFE Act 1990, enabling regulated embryo research, steps outside the firm ground of biomedical science and encourages the idea that *Reproductive BioMedicine Online* should embrace a further section enabling articles dealing with 'History, politics and personalities' where these influence biomedical research. 

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The article entitled 'The politics of human embryo research and the motivation to achieve PGD' (Theodosiou and Johnson, 2011), in this issue of *Reproductive BioMedicine Online* deserves commentary as it steps outside the 'firm' scientific ground of biomedical research into the 'softer' fields of history and politics. To be fair, *Reproductive BioMedicine Online* with its 'devotion to biomedical research on human conception and the welfare of the human embryo' does seek articles under the topic of 'Ethics, social, legal, counselling'.

The article centres on four aspects of indisputable fact, namely: (i) the Warnock Report on IVF tabled in the House of Lords in Westminster in 1984; (ii) the reactionary Unborn Children (Protection) Bill introduced by Enoch Powell as a private member in 1985; (iii) the published reports of 1989 and 1990 concerning preimplantation genetic diagnosis (PGD) on human embryos by Handyside and his colleagues at Hammersmith hospital under the leadership of Robert Winston (Handyside et al., 1989, 1990); and (iv) the

establishment of the HFE Act in 1990 which allowed PGD as well as regulated research on human embryos.

Theodosiou and Johnson, using impressive scientific-like sleuthing, but inevitably relying on much conversational evidence, jottings, parliamentary records, minutes from meetings, private papers and documented conversations with the perceived key stakeholders, create a suspenseful story to explain the emergent PGD application in humans which, in their view, was fast-tracked some years before its expected due date. Being active in the IVF field in London with Professor Ian Craft from 1976, I would concur that in the mid-1980s we were still struggling to make the basic fertilization and embryo culture technology efficient and, although we had mooted a potential for wider application (Craft and Yovich, 1979) including embryo diagnosis with a view to reducing significant anomalies, at that stage the latter was a deferred consideration. Many IVF clinics started their foundations in the mid-1980s with assistance from the earlier pioneers

and my experience concurs with the authors that PGD was not an important consideration at that time.

The appeal of science is that it is a progressively evolving process, at least from the time of Isaac Newton utilizing the principles of Scientific Methodology and escaping from the shackles of religious dogma. The resulting truisms hold until further hard evidence moves the knowledge a step further. History and politics, however, are notoriously unreliable – history being a record of events prone to interpretation, especially by the victors or winners or, nowadays, by the politically correct and politics being a process by which groups of people make collective decisions. These processes tend to cycle and repeat so one does not get the sense of progressing forward. Nonetheless, *Reproductive BioMedicine Online* should accept some articles as the perceived collective wisdom of the day under a title ‘History, politics and personalities’ as an entertaining but also relevant side to biomedical research.

With respect to personalities, the article of Theodosiou and Johnson introduces several who might be seen to be worthy. The main personality is that of parliamentarian Enoch Powell (see, for example, www.wikipedia.org/wiki/Enoch_Powell) and the peculiar role he played in the favourable achievements gained in the HFE Act 1990. The Right Honourable Brigadier Professor John Enoch Powell (1912–1988) was a remarkable man who was a powerful orator, courted controversy and had no hesitation in speaking his mind. He was also capable of changing his allegiances (e.g. from Conservative party stalwart to Ulster Unionist Party as well as supporting Labour to victory in 1974). He was British born but had an Australian connection, acquiring the Professorship in Greek at Sydney University at age 25, thereafter enrolling in the British Army (as an Australian citizen) to join the war in Europe where he rose from private in 1939 to Brigadier in 1945 as one of only two individuals to progress so rapidly and gaining numerous medals along the way including the Military Order of the British Empire. Drawing on his deep knowledge of the classics, he delivered many famous speeches including his ‘Holla Camp’ speech of 1959, criticizing colleagues who had a derogatory view of the Mau Mau in Kenya; his 1961 ‘Water Tower’ speech whilst he was Health Minister; and his ‘Rivers of Blood’ speech of 1968 warning of dangers of unchecked mass immigration from countries of the disintegrating Commonwealth. His history makes very interesting reading from whichever interpretation, including his controversial dealing with victims of the thalidomide sequelae as Health Minister 1960–1962, as well as his introduction of the Unborn Children (Protection) Bill 1985.

During the debates leading up to the HFE Act 1990, I personally believe the medico-scientific input failed to understand that the public (and politicians on their behalf) were frightened of our use of the term ‘research’ which they equated with ‘experimentation’ (viz. the Nuremberg trials of 1945–1946). This emerged in debates within the House of Lords, some of which I personally attended during the 1980s when another relevant personality from the article, colleague Professor Robert Winston (see, for example, www.wikipedia.org/wiki/Robert_Winston) encouraged several of us to join him in the public gallery on evenings post prandial after medical meetings to listen to the erudite speeches as an alternative to nightclub entertainment. It was indeed often an enthralling and sometimes intimidating

experience to hear those highly articulate speeches decrying ‘research’ and delivered with powerful British aplomb. Colleague Robert Winston himself rose to membership as a Lord in that esteemed chamber as Baron Winston of Hammersmith in 1995, one of his many and varied achievements. One suspects a background interactive role in the events underpinning the article of Theodosiou and Johnston and perhaps we do owe a debt to our colleague for reading the events so well and saving the day.

From my current perspective, having worked with IVF for 34 years now, the 1980s debates on PGD were actually being conducted before we had efficient control over the basic laboratory procedures (Yovich et al., 1984), and outside London some were reporting IVF as a failed technology (Wagner and St Clair, 1989). I believe a further important personality mentioned in the article, Anne McLaren (see, for example, www.wikipedia.org/wiki/Anne_McLaren), was well aware of our basic embryology struggles, hence her initial reticence about embryo biopsy. Even today, aneuploidy screening, or preimplantation genetic screening, is a challenging subject for numerous reasons and does not yet fulfil Enoch Powell’s support to prevent children with disabilities except on a very small scale, although there remains an expectation of benefits in the future utilizing the new comprehensive chromosome screening methods at the blastocyst stage (Wells, 2010).

At least the interesting events described by Theodosiou and Johnson resulted in a model for the HFE Act 1990 which enabled embryo research and their article makes a good read with a perspective on that outcome. The story is certainly plausible but implies a teleological theme in the sense that the unfolding historical and political events had to occur to stimulate the desired biomedical achievement which, in turn, changed the political debate and historical outcome, again not a conventional scientific sequence.

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