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Winnicott's contribution

SIR: I read Dr Wardle's comprehensive article "Twentieth-century influences on the development in Britain of services for child and adolescent psychiatry" (*Journal*, July 1991, 159, 53), with interest. It seems extraordinary that he omits Dr Donald Winnicott's enormous contribution to the understanding of children. Winnicott qualified as a consultant paediatrician in 1923 and later became a psychoanalyst and a child psychiatrist. He was appointed psychiatric consultant to the Government Evacuation Scheme in the county of Oxford in 1940 and worked with children evacuated during the war. While Klein was concerned solely with the internal world of the child, Winnicott, along with Bowlby, recognised the significance of the early mother-child relationship on the development of the child's personality. He developed, among other things, the concepts of the facilitating environment, the use of child's play in treatment, and the transitional phenomena. His radio broadcasts and popular writings helped to make these developing ideas accessible to the general public. Dr Wardle's account would be incomplete without the acknowledgement of Winnicott's contribution.

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Incidence rates of schizophrenia

SIR: Recent papers concerning unexplained variations in incidence rates of schizophrenia by Kendell & Adams (*Journal*, June 1991, 158, 758–763) and by season of birth according to genetic risk by O'Callaghan *et al* (*Journal*, June 1991, 158, 764–769) provide an element of support for the theoretical consideration of the role of light as an aetiological factor in the genesis of the disorder. This was discussed in correspondence (Quested, *Journal*, November 1990, 157, 782), and then proposed as a short paper at the Spring 1991 Quarterly meeting of the Royal College of Psychiatrists. O'Callaghan *et al* found that a winter birth excess was confined to those

at low genetic risk for the condition, thus strengthening the evidence for the aetiological role of an environmental factor. Kendell & Adams report the interesting finding of a correlation between fluctuations in the month of birth of a sample of schizophrenics and temperature variations from the mean in the third month of gestation. The most interesting aspect of their results is that the influence inverted according to whether the births occurred in Spring or Autumn. Increased incidence rates were seen in births occurring in a phase of increasing day-length following a fall in temperature six months previously, while higher rates were seen for births occurring during a phase of decreasing day-length following an increase in temperature six months previously. While this is difficult to understand in terms of the viral hypothesis which the study was testing, the finding is highly relevant when considered in terms of biological rhythms under the influence of photoperiod and is actually predicted by the theory referred to above. Animal studies of the effect of photoperiodic fluctuations on neurodevelopment have revealed the positive correlation of post-natal day-length with cerebral mass and density in males (Dark, 1987) and the relevance of the prenatal maternal photoperiod to both somatic and neurodevelopment in males and females (Lee, 1988). One of the fundamental purposes of the transfer of photoperiodic information between mother and offspring in animals is to prepare the foetus for the expected season of birth so that appropriate patterns of development can occur. Variations in the maternal photoperiod have been shown to set up different patterns of growth even though the encountered light:dark ratio at birth may be constant (Horton, 1990).

In the present context of the understanding of schizophrenia as a neurodevelopmental disorder, it is possible that variations in photoperiod could mediate the establishment of inappropriate development patterns. The model is well placed to explain present queries in schizophrenia research such as the increased incidence in winter births, especially in those with no family history, and rates in second-generation Afro-Caribbeans, as well as urban/rural differences.

It is likely that discordance between the signal communicating expected season of birth and actual post-natal photoperiod could interact with asymmetrical cerebral development to cause the differences seen in neuropathological studies of schizophrenia. Kendell & Adam's paper suggests the sensitive period for the transfer of seasonal phase information is the third gestational month, in humans, and the "influence which varies consistently with season and temperature" referred to in the abstract is, in all likelihood, light itself.

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SIR: I read with interest the paper by Kendell & Adams (*Journal*, June 1991, **158**, 758–763) showing that the lower the temperature in the Autumn, the higher the incidence of schizophrenia the following Spring. The authors point out that the effect is a small one, and that some infective or nutritional influence may be the actual aetiological agent. However, the World Health Organization's studies on schizophrenia demonstrated that the incidence of schizophrenia as 'broadly' defined showed an approximate three-fold variation from country to country (Sartorius *et al*, 1986) and also that the outcome of schizophrenia was significantly better in 'developing' countries than in the 'developed' world. Some time ago I carried out analyses using incidence and outcome measures from the WHO investigations, and found large and significant correlations between these and indices of environmental temperature (Gupta & Murray, 1991b). Furthermore, when taken together with other data (for example, from biological studies, e.g. McDonald & Param, 1985), such epidemiological findings suggest that the link between environmental temperature and schizophrenia may have aetiological significance (Gupta, 1990).

In the same issue (*Journal*, June 1991, **158**, 834–835), Eagles makes some interesting observations about the paper entitled "Is schizophrenia disappearing?" of which I was a co-author. He points out that first-admission rates were not age standardised, but also notes that in patients aged under 55, a fall was apparent in all age groups. This he argues is evidence against a purely perinatal explanation of the apparent decline in incidence of the disease, and he suggests that reduced rates of infectious illnesses may also be involved. However, as pointed out elsewhere (Gupta & Murray, 1991a), if increased resistance to infections is due in part to improved health care early in life (for example due to immunisation programmes), then once again one would have expected a selective

fall in the incidence of schizophrenia among younger patients. The effects of any additional triggering factor are likely, on the other hand, to be dependent on influences operating in a period comparatively close to the time of illness onset. Furthermore, if the analysis of the data from England and Wales is correct, the intensity of this factor probably started to change sometime in the 1960s.

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Ethnic nomenclature

SIR: I remain perplexed by the continuing *Journal* use of the term 'Caucasian' to describe people of White European origin. This supposedly scientific designation has no rigorous meaning: it was originally popularised by the biologist Johann Blumenbach (1795) when he attempted to modify Linnaeus' definition of a species so as to catalogue different human groups. Blumenbach chose 'Caucasian' to designate the 'first race' (from which all others were held to be degenerate forms) because we all split up after Noah's Ark landed on Mount Ararat in the Southern Caucasus (Genesis 9: 18–19). The term continued in use during the 19th century, variously including the Semitic-speaking peoples (Jews, Arabs) or excluding them. It consistently *included* the Indo-European speaking peoples of South Asia: the societies referred to in the *Journal* as 'Asian' where they are counterposed to 'Caucasians'. Contemporary biological anthropology and population genetics find no value in this confusing notion of 'race' which elides the cultural and the biological. Instead, they prefer to use the deliberately ambiguous term 'ethnic group' in which a group of people are referred to by the term they themselves use: hence Inuit, not Eskimo.