

three maladjustment categories as of those who appeared in court *before* the ratings were made. Specifically, the two groups contain the same proportion of maladjusted children. This remains true even for those children who made their first court appearance eighteen months after the teachers' judgments were recorded. As Stott (1962) has found, efficient delinquency prediction instruments can be built on teachers' ratings.

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#### The Effects of Physical Ill-health in Adolescent Delinquents

The relationship between physical illness or defect and delinquency has been debated for many years. In the past, its importance has probably been exaggerated. Faced with a delinquent with a well-marked defect, one has an understandable tendency to fasten on to it, and perhaps attribute more to it than it deserves. Glueck & Glueck (1950), in a large-scale study of 500 delinquents and 500 controls, found that birth injuries and such defects as stammers, squints, undescended testes, &c., were commoner in the controls than the delinquents. Serious defects probably tend to produce shyness and withdrawal more often than aggression or delinquency. But in the individual delinquent they may play an important part. In his study of the total school population of Glasgow, Ferguson (1952) found that those from schools for the physically handicapped were rather less often convicted than those from normal schools, but those who *were* convicted tended to repeat offences much more often. Many would have a reduced capacity to be delinquent: the delinquents were mainly those with asthma and other respiratory diseases and heart disease.

#### *The Situation in Young Adults: Borstal Boys Aged 17 to 21*

In 1952 a random sample of 200 Borstal boys was examined – every alternate boy sent to Borstal from the Greater London area (Gibbens 1963). Most of them had two or three previous convictions, so they were fairly persistent delinquents.

They are examined before committal to Borstal, so that those with gross mental or physical illness or defect would be reported as unsuitable.

The significance of physical disease and defect in delinquents is influenced by the fact that delinquents tend to be much more muscular than the average (Glueck & Glueck 1956). With the help of Dr J M Tanner (Tanner *et al.* 1963), this is also proved to be true of Borstal boys. Figs 1–4 show the distribution of physiques in (1) Oxford undergraduates; (2) Sandhurst cadets – rather more muscular; (3) Borstal boys; (4) teachers training to be physical training instructors at Loughborough College, an occupationally muscular group which nevertheless clearly resembles Borstal boys. In the charts the upper segment refers to mesomorphy (muscularity), the left to endomorphy (plump, rounded) and the right to ectomorphy (linearity, fragility).

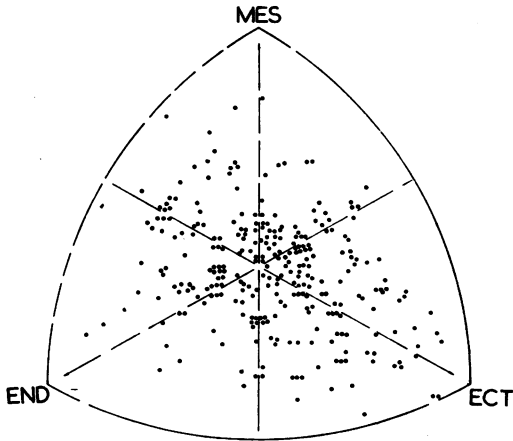
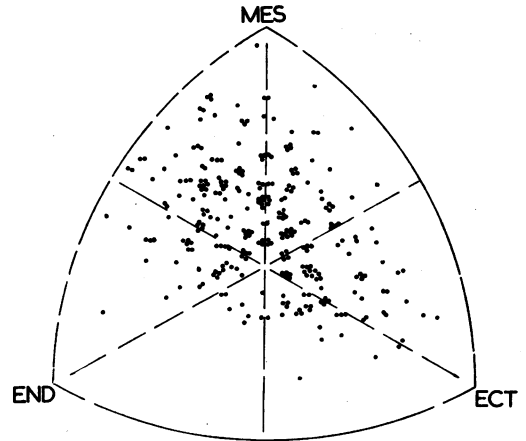
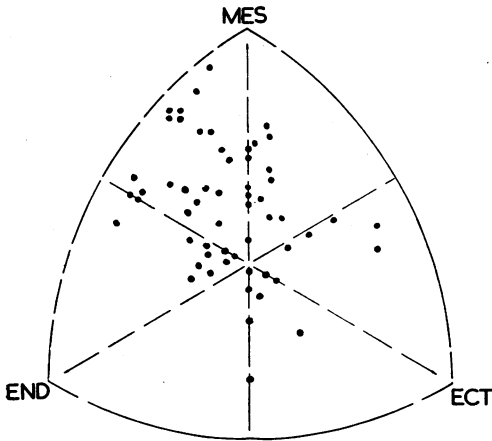
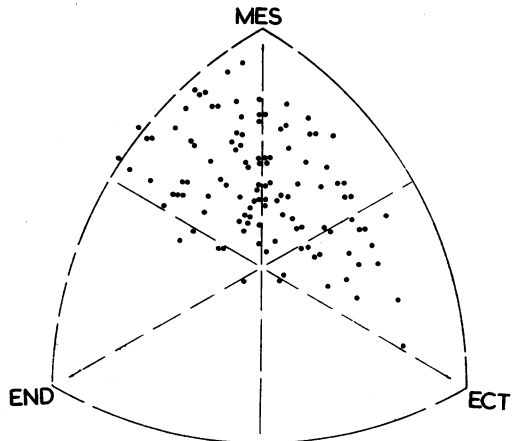
Among the 200 Borstal boys – in spite of the medical selection which resulted in nearly all of them being fairly fit at the time – there was a surprisingly high incidence of a history of important disease or defect – important medically as well as in its effect on the boy's life: 18% had such a history, and a further 22% had relatively minor troubles such as running ears or visual defects which had, however, led to rejection from military service. This ratio can be compared with various other studies. Logan & Goldberg (1953) at the same time examined 78 out of 100 youths routinely called up for National Service in Acton at 18: they found major defects in 4% and minor ones in 11%. The most valid comparison, however, is with the total incidence of defects found in 18-year-old boys called up for National Service. Table 1 shows the rejection rate for various conditions of 18-year-old boys called up in the Home Counties (Lee 1955) compared with the incidence in the 122 Borstal boys who were 18 or over on arrival in Borstal. The rejection rate from National Service in the Borstal boys was 38% compared with 17% in the general populations of the Home Counties.

When these boys with defects were compared with others in relation to all the usual crimino-

*Table 1*

Rejection rate per cent of 18-year-old youths examined

	Home Counties' sample %	Borstal boys (122) %
Mental defect	2.0	6.6 (?)
Ear, nose and throat conditions	2.6	7.3
Orthopaedic conditions	2.5	4.9
Tuberculosis – all forms	0.8	4.0
Other conditions	10.4	15.4
Total incidence of defects that would cause rejection	18.3	43.0
Actual rejection rate	16.7	38.2

Fig 1 *Oxford undergraduates* (after Tanner et al. 1963)Fig 2 *Sandhurst cadets* (after Tanner et al. 1963)Fig 3 *Borstal boys* (after Gibbens 1963)Fig 4 *Loughborough physical training students* (after Tanner et al. 1963)

logical features of their history, it was clear that they tended to be older, to have fewer convictions than the others and to have begun their criminal careers later in adolescence. The prognosis, as determined by the so-called prediction score of Mannheim & Wilkins (1956) was significantly better. Ogden (1959) showed that correcting the physical deformities of Borstal boys improved their chances of rehabilitation, but this has to be set against the fact that their outlook is apparently better anyway.

Physical illness or defect influences the delinquent in three ways:

(1) The direct effect, through injury to the brain, e.g. by encephalitis or serious head injury. This is quite a small group, about 1-2%. Although many delinquents have head injuries, investigation

usually shows that they are trivial; but the effects of these minor head injuries and of special handicaps are very difficult to assess.

(2) The practical or economic aspect: a boy may have been thrown out of a job and suffer hardship in getting resettled. This is the aspect which appeals a great deal to courts. They are very ready to understand that a boy who has just come out of hospital after a long illness is liable to fall upon hard times, and they will give him two or three chances on probation.

(3) The psychological reaction to illness or injury. This is undoubtedly the most important kind of effect. It varies a great deal with the age of the boy, the accompanying circumstances, and the success of the treatment.

One important but not very common pattern (at this age, at least), occurring in 2-3%, is a degree of repeated hospitalization in childhood for bronchitis, otitis or skin disease, causing a significant degree of deprivation of maternal care. The various periods in convalescent homes add to the separation. This whole subject has been discussed a great deal in recent years. The World Health Organization (1962) has recently published an excellent review of the latest evidence about maternal deprivation. It is obviously necessary to reduce the possible effects of separation, in hospitals and elsewhere, to a minimum; but one of the difficulties about studying the effects is that the clearest cases tend to have suffered a succession of deprivations. It is the child from the overcrowded or inadequate home who has to be taken into hospital whenever it is ill; or the parents separate while the child is away, or become more interested in a new sibling, so that these effects cannot be distinguished from that of separation.

What matters is not just the effect on the child but the effect on the parents who then exert a continuing influence on the growing boy. Ill health in the child is apt to produce excessive solicitude or hostility (sometimes well concealed). Our three patients with chronic asthma, combined either with enuresis or chronic otitis, came characteristically from highly respectable middle-class families where the mother showed a great deal of conscientious concern, together with irritation and exasperation, so that in the patient's late childhood she had to be regarded as both excessively solicitous and excessively punishing.

The most characteristic group at this age of 17-21 were those who had suffered a major illness in adolescence - 3 with rheumatic fever and 8 with major chest disease, especially tuberculosis. They had the expected educational and vocational difficulties, but what startles the courts is the depth and strength of the delinquent drive which these boys show after a fairly normal childhood. They have no intention of stopping while on probation. What happens, I believe, is that their experience of damage reverberates with deeper adolescent fears of incompleteness. Similarly, in exhibitionists it is quite common to find a history, or misinterpretation, of injury to their genitalia in adolescence; they frequently believe that they are sterile.

The external sign of this reaction, apart from delinquency, is that they often throw themselves into the most unsuitable employment. One youth with tuberculosis of the hip, which still caused some pain, ran away and tried to become a deck-

hand in a fishing boat, then took up heavy work in a steel works, and ended by stoking a retort in a gas works. Another with osteomyelitis of the hip became a coal miner. This reaction formation extends to their criminal behaviour - to give it up means becoming a failure, and they struggle to preserve their self-respect. They respond well to Borstal training when they experience approval, trust and responsibility, which rebuilds their self-respect in a normal way.

In the remand home for delinquent and wayward girls one sees repeated cases of girls whose squints have been operated upon at 13 or 14 and who have soon after thrown themselves into uncontrolled promiscuity. The change from being an ugly duckling to an attractive teenager seems too much for them. Such operations, it seems, should be carried out well before puberty.

The emotional consequences of prolonged pain in childhood, for example from burns, are now receiving the attention they deserve. During the Borstal study, all boys who were twins were reported to us, though we only collected 7 pairs. Often the delinquent twin is the leader, is duller, more aggressive or maladjusted than the other. In two pairs of identical twins the main difference in the history of the delinquent leader was that he had a severe burn in childhood and his twin did not.

Enuresis and asthma are two conditions which have an important but certainly very complex relationship to delinquency. Psychiatrists see them when these conditions clear up at 14 or 16 and then give place to delinquency, sometimes of a determined kind. They deserve more study.

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Dr A Hyatt Williams (*Tavistock Clinic, London*) read a paper entitled *Some Psychopathological Factors in Delinquent Adolescents*.