SOCIAL MATURITY TEST.*

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IT has been said that when a psychiatrist is appointed to a general hospital the staff only by stages come to make use of his services. The first phase is that in which he is called upon to dispose of those patients suffering from severe mental illnesses, whose behaviour is disturbing to the rest of the ward. In the next phase he may be called upon to deal with psychotics and severe psycho-neurotics. The third phase comes when surgeons and physicians refer to him all those patients they have investigated for whose symptoms no organic basis can be found. A fourth phase is when the psychiatrist is asked to co-operate in the treatment of such psychosomatic cases as asthma, colitis and migraine—and in the last phase, when the psychiatrist has proved his worth, he may be asked to advise on the handling of patients suffering from "wear and tear diseases," frank organic diseases, such as gastric ulcer and hyperpiesia (1).

A parallel sequence of events can be observed in the natural history of child guidance clinics. When these are first established there is a tendency for schoolmasters to drag out from the back rows of their classes those unascertained defectives who have vegetated there—or worse still, disturbed the rest of the class by their bizarre behaviour and responses. The completeness of ascertainment varies of course from county to county, but it is significant that Miss Dunsdon and I found that of 23 defectives appearing before the Bristol Juvenile Court in 1941, only one had been attending a special school (2). The numbers of defectives passing into the Army past the medical officers of Recruiting Boards are also significant (3). If this stream of defectives referred to the Child Guidance Clinic becomes a flood there is a danger of the Clinic being labelled in the popular mind as the "daft and silly" clinic, and parents hesitate to bring their normally intelligent but maladjusted children for advice, as they fear they will be "put away" (4).

A campaign of re-education of the teaching profession in the city or county is required therefore, and this may need to be backed by a survey to ascertain the distribution of defectives in the area to convince the administrators and local authority committees concerned of the need for action.

Having coped with this aspect of the problem, a new class of case tends to swamp the clinic facilities, the juvenile delinquent; if the proportion of juvenile delinquents to the total referrals becomes too large, the clinic now acquires the reputation of the "bad boys'" clinic, and again parents of more normal children are deterred from bringing their neurotic children in case they should be contaminated by "evil communications" in the waiting room. Such a situation became fairly acute in the Bristol Clinic in the second year of the war, and Miss Dunsdon and I investigated the problem first by studying the distribution of intelligence amongst children brought before the Court (2),

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and demonstrated the high incidence of dull and backward children among the young delinquents (4). At the same time there were a large number of children of normal, and some few of superior intelligence who came before the courts, and in a high proportion of these children we found evidence of disruptive influences in the home: parents dead, divorced, separated, both parents at work, alcoholic or psychotic parents. Arrangements were therefore made with the support of the Chief Education Officer that every child remanded by the Bristol Juvenile Court for investigation, whether on bail or to a remand home, should have an intelligence test. If the psychologist felt that a further psychiatric examination was required in addition, this was requested in her report to the magistrates (5).

While, therefore, in the case of the defectives and the dull and backward we were able to assist the magistrates with a fairly accurate assessment of the intellectual limitations of the child before the court, in the case of the normal and the bright children, other factors which so far did not lend themselves to quantitative measurement required more attention.

At that time I was also interested in some of the handicaps of the child brought up in institutions, and was casting about for some method of assessing the differences in adjustment to the school-leaving situation and the commencement of work between the child brought up in a normal home and the child who had spent his early life in an institution. I found Goldfarb's account (6) of a small sample survey on these lines which was carried out in America, and noticed his use of the Vineland Social Maturity Scale (7). Miss Mackinlay, of Mill Hill Hospital, kindly put at my disposal a collection of reprints on this test, and through the kind offices of a friend in the American Consulate, I was able to obtain a copy of the test, and the manual of directions, together with the scoring table.

Investigation of social adaptation entails a study of how the growing child reacts to his human environment, and how he achieves a state of relative independence, having entered the world in a condition of complete dependence.

The capacity of the child to adapt himself will depend on a variety of factors, some of which are inherent in the child, while others will depend on the chances and changes in his surroundings.

Of those factors which are inherent in the child, an important one will be the child's general intelligence—the reliable memory, the capacity to learn from experience, the mastery of general principles, the perception of the relation between cause and effect, the exercise of common foresight, are all associated with a developed intelligence, and should be mobilized in successful adaptation to other human beings.

But it does not necessarily follow that high intelligence and good social adaptation go together. It is easy to think of examples of the clever adolescent who is out of adjustment with his environment. On the other hand, some mental defectives make excellent social adjustments, provided the people in their environment do not make demands beyond their capacities.

While, therefore, a measurement of intelligence is valuable in such an investigation, it cannot be relied on as a complete guide to the social adaptability of the subject.

In America a good deal of work has been done in the last ten years on working out a scale of social adaptability, which should measure this capacity much as the Terman Merril scale measures intelligence.

Doll, working at the Vineland Institute, has now standardized (7) his Social Maturity scale on 620 subjects, rechecked the scale on 250 subjects, and further rechecked it on 196.

He has worked out maturation curves on specific items in the scale, as illustrated in his 1942 article (8).

The test is not a scale of emotional maturity—or a measurement of personality, conduct or occupational success. It is devised to estimate the degree of self-help and self-direction, the initiative shown in independent locomotion, communication and socialization. The degree to which the individual is independent from the assistance and supervision of others and the extent to which the individual can contribute to the well-being of those around him.

His test is devised as independent of sex factors (9)—that is, it is applicable to both boys and girls. Originally the test was designed to be applied to informants about the testee. He has later found it accurate when the testee provides the information down to a social age of only 4 (10).

He found that when informants, wardens, attendants, matrons, parents, welfare officers, were asked opinions and impressions of the social adaptability of children and young persons, they were apt to be wildly inaccurate about children over 12. Their estimates tended to be based in terms of usefulness rather than social capacity. The Vineland Scale constitutes a useful check on such a tendency.

After seven years' experience with this test Doll maintains that there are probably limits to the unfolding of the social personality (11), just as there are limits to the development of intelligence. While intellectual capacity reaches its maximum development at 14, in the great majority of cases social capacity goes on developing until the 25th year.

The influence of training and environment is principally effective, he believes, during the period of development. It is ineffective after social maturation is complete. This, if true, has important bearings on the institutionalization of children, particularly defectives, as Doll found that the rate of maturation in the feeble-minded slows down after 15 and stops at 18 (12) as compared with 25 years in the normal subject. He finds that a social age of 18 seems to be the borderline between the normal adult and the defective, and that a Social Quotient (S.Q.) of under 70 indicates social deficiency.

Doll has investigated a series of families using his social maturity test, and has demonstrated that social maturity appears to be distributed in a similar fashion to intelligence. He prints genealogical trees of four generations, showing that in some families the social maturity never reaches a normal level, while in other families the social maturity is always above average. He states, "to be socially feeble-minded is just as fatal to successful integration in human society as to be mentally feeble-minded."

Doll tended to believe that social capacity was very largely an innate factor and was only slightly modified by environment (11), though he admitted

that foster-home placement capitalizes social competence to better advantage than does institutional care in some directions (12).

To illustrate the usefulness of this test I have taken 70 consecutive cases from the Bristol Child Guidance Clinic files, and made up the numbers to 100 with cases from the Somerset County files and my private case-file over the same period. Thus, both urban and rural children have been examined, and from all economic levels of society. It must of course be remembered that all these children were referred as child guidance problems, and that so far, owing to pressure of work, I have had no opportunity of examining controls—though I may add that Miss Mackinlay, working for the Nuffield Research Foundation, is at present building up some control figures.

In parenthesis, I would like to comment on the difficulty of establishing "controls" in psychiatry and social medicine. The variables are so many that the hunt for normal controls often proves the most difficult part of a research plan. Richardson (1) has practically stated that controls are impossible in certain fields of social medicine. Margaret Mead (14), the anthropologist, has also commented on the difficulty, and contented herself with those clinical studies recommended by Prof. Aubrey Lewis at the last annual meeting of this Society (15).

To return to the clinical material of this study—how far does social competence correlate with intelligence as measured by the Terman Merrill test? Doll claimed that the correlation worked out at 0·8, but my material might be expected to show a smaller correlation, as all the cases had been referred to me for some maladjustment or other. I decided rather arbitrarily to narrow the correlation down to a difference of 5 points plus or minus between the intelligence quotient and the social quotient $\left(\frac{\text{social age}}{\text{chronological age}}\right)$. Social ages and mental ages were not comparable, as the maturation ages were different.

Twenty-eight children had social quotients within 5 points of their intelligence quotients—the I.Q. range being from 61–130.

TABLE I.

	Number.	%.		Number.	%.
I.Q. under 70	2	7·1	S.Q. under 70	2	7·1
Between 70–84	6	21·3	Between 70–84	7	28·4
,, 85–115	16	57·8	,, 85–115	14	56·8
Over 116	4	14·2	Over 116	5	17·7

Of these 28 children, whose I.Qs. and S.Qs. were nearly identical, 20 children (71 per cent.) came from broken homes.

TABLE II.

Step parents	1	Illegitimate	2
Evacuated	4	Parent alcoholic	1
Father in Services	4	Father killed on service	3
Parent in prison	2	Parents separated	2
		Both parents at work	1

Although nearly 75 per cent. of this group had average to very good social quotients, in more than 70 per cent. the environmental circumstances were, or had been unsatisfactory. This finding for what it is worth seems to support Doll's contention, referred to above, that social capacity is an innate factor.

The group of children in which there is a disparity of more than 5 points between the S.Q. and the I.Q. can be divided into two parts. First the group in which the S.Q. is more than 5 points higher than the I.Q. There were 25 of these—(if the discrepancy is 10 points or over, the group is one of 18)—the I.Q. range being from 35–109. (See Table III.)

TABLE III.

	Number.	%.		Number.	%.
I.Q. under 70	8	32	S.Q. under 70	5	20
70–84	5	20	70–84	4	16
85–115	12	48	85–115	10	40
116 and over	0	0	116 and over	6	24

In this group in which S.Qs. are higher than I.Qs., more than half the children are either mentally defective or mentally dull and backward. Nearly one-third are defective, and there are no children of superior intelligence.

Of the eight defectives none had been officially ascertained and neither parents, teachers or employers were aware of their special limitations. The consequence was that pressure had been put on them to maintain average standards of work and behaviour, and a considerable number, 69 per cent. of both the defective children and the dull and backward, had broken down under the strain of maintaining standards beyond their capacity and showed either social symptoms, such as delinquency, or conversion symptoms, such as hysterical paraplegia.

TABLE IV.

Symptom.		Symptom.	
Depression	1	Phobias	2
Stealing	2	Aggressive, spiteful	1
Sex abnormalities	2	Hysterical conversion	1

Of the 12 children of average intelligence, whose social capacity was abnormally developed, 10 were showing signs of the pressure put on them.

TABLE V.

Stealing	3	Tics	2
Lying	1	Enuresis	4

It is interesting to note that in these more intelligent children conversion symptoms were not observed, but psychosomatic symptoms were preponderant—and stealing is the commonest social symptom of maladjustment.

One boy—Case No. 2967—in this group illustrates the type of situation. He was aged 11½, had a mental age of 10 (I.Q. 88), a social age of 12·9 (S.Q. 113). He was referred by the Juvenile Court for stealing. He was the sixth child in a family

of 9. His father suffered from fits and was of very dull intelligence. His mother appeared to be mentally defective according to the social worker's report. An older brother was in a colony for defectives. It was clear from the social history that this boy was the brightest member of the family, although his I.Q. was only 88, and that the rest of the family had learnt to rely on him. It is not surprising that he developed a " social breakdown " and became delinquent.

The other group of children where a disparity is found between the I.Q. and the S.Q. is that group of children in which the S.Q. is lower than the I.Q. by more than 5 points. There were 47 of these ; I.Q. range from 54–144. (If the discrepancy is 10 points or over, there were 41.)

TABLE VI.

	Number.	%.		Number.	%.
I.Q. under 70	1	2	S.Q. under 70	2	4
Between 70–84	2	4	Between 70–84	14	29
,, 85–115	28	60	,, 85–115	30	64
Over 116	16	34	Over 116	1	2

In contrast with the group of children whose S.Qs. were greater than the I.Qs., there is a big proportion of children (over a third of the total) who are of superior intelligence, but there are very many fewer mental defective and mentally backward (6 per cent. compared with 52 per cent.). A very much smaller number of children have exceptionally good S.Qs. After all this is to be expected. A child of 10 may have a mental age of 14, but we do not expect him to behave like a 14-year-old ; in fact we should tend to discourage such precociousness.

The home environment in this group of children was unsatisfactory in 25 (53 per cent.).

TABLE VII.

Step-parents	1	Parent alcoholic	1
Evacuated	7	Parent died (mothers (3))	4
Father in Services	5	Parents separated	3
Parent in prison	0	Both parents at work	0
Illegitimate	4		

It is perhaps significant that this is the only group examined in which motherless children were found.

Of the remaining 22 children in this group, whose family circles were intact, 6 children had mothers who were noted as grossly over-protective, 4 had one or more parents who were under treatment for neurosis. Their social training, therefore, was likely to be deficient as far as adult example and encouragement were concerned.

Social training is also brought about by brothers, sisters and school-mates. In this group of children whose social capacity was not as good as their intelligence, and who had normal parental care (12 cases), 4 were only children and 8 were the youngest members of the family. Only children lack the example of older brothers and sisters, and the stimulus of younger sibs, while the youngest child is treated often as the family pet, rather than as an individual with rights of doing things for himself.

Perhaps the chief interest in this group is in those children whose intelligence is normal, but whose social capacity is to be ranked as backward (under 84) or defective (under 70).

Of the social defectives (S.Q. under 70) there were 2. One a girl of 20, with a mental age of 9 and a S.Q. of 54. Her over-protective mother had spent a lot of money training her as a shorthand typist, and was indignant because nobody would employ her for longer than a week. Quite obviously this girl would never be able to earn her own living.

The other was a girl of 9+, with a mental age of 7·0 (I.Q. 72) and a social quotient of 57. Obviously, though this child was above the usual borderline for a special school, her limitations were too great for her to profit by education in the ordinary junior class.

There were 14 children who were socially dull and backward in this group of children with S.Qs. lower than I.Qs. Only one of them was intellectually dull and backward. The remaining 13 had average or superior intelligence—2 with I.Qs. of 115 or over (see Table VIII).

TABLE VIII.

S.Q.	I.Q.	Symptoms.	Social history.
81	92	Aggressive	Illegitimate; only child in hostel; mother refused to take it home.
82	96	Enuresis	Only child; mother invalid in hospital; father in Army since child was 2.
79	97	Stealing	Second child in family of four.
83	98	Educational failure	Has been at boarding school for five years since age of 8.
74	101	Stealing	Father dead; mother's remarriage; youngest of three brought up by grandmother.
84	104	Phobias	Over-anxious mother; father in Services since child was 3; hospitalized 2; younger of two children.
72	96	Sex play	Youngest of three children; sleeps with sister and two girl cousins.
84	110	Phobias	Middle child of three; alcoholic father; over-protective mother.
80	113	Apathy	Parents separating; has been fostered in four different homes.
79	115	Depression	Father in Services; evacuated; boarding school for seven years.
79	118	Inability to keep job	Typical psychopath.
83	90	Tempers	Oldest of three children; father in Services since child was 4.

The study of this sample survey of social capacity appears to show that there is, on the whole, less variation, a smaller range of differentiation, compared with the spread of intellectual capacity. Perhaps this is to be expected when we bear in mind the very powerful social pressures brought to bear on

the child, as Margaret Mead has demonstrated in her Chapter, "The Child's Dependence on Tradition" (14).

However powerful the external forces, there would appear to be an innate factor concerned, probably an inherited one. I have not had time to investigate S.Qs. throughout families. It would be interesting to make comparable studies to those of Dr. Savage, who investigated the I.Qs. of the mothers of problem families in Herefordshire (16). I have only notes of a brother and sister with S.Qs. of 125 and 111.

But I think I have demonstrated that social capacity may be precociously stimulated and developed with resulting breakdown, either social, neurotic or physical. It is interesting to note that in many defectives the S.Q. is higher than the I.Q., and I have recently begun to investigate the social capacity of school-leavers from special schools. Here I have found in the small number so far tested that the children who have been recognized early, and have had adequate training in a curriculum suited to their limitations, leave with S.Qs. considerably higher than 70, and are fit to take up work in an occupation suited to their intelligence, but that a certain number of these school-leavers have S.Qs. under 70, and it is doubtful if they should be exposed unsheltered to the normal hazards of the labour market.

This compactness of social capacity leads us to expect that children of superior intelligence would have, on the whole, relatively lower social quotients, and that if the S.Q. is lower than 85, difficulties in behaviour, neurotic symptoms or psychosomatic symptoms are likely. The child with an S.Q. below 70, even if the I.Q. is higher, is so handicapped that he should be treated as a defective. This is a practical point of some importance, and should help to clear up those difficult borderline cases which give such headaches to the Justices on the Juvenile Bench and the magistrates' clerks.

It is relevant to ask here, can S.Qs. change, or are they fixed irrevocably for life? Wechsler has marshalled the arguments which led to some very disturbing conclusions about the constancy of the I.Q. (17), and if the constancy of the I.Q. is no longer sacred, one would still less expect the S.Q., depending on a scale whose items involve a range of opportunities, to be constant. In fact, I have used this scale to measure improvement after treatment and give two examples:

One boy of nearly 13, with an I.Q. of 115, who was referred to me for apathy; when I first saw him he had a S.Q. of only 79 and in appearance resembled a typical melancholia. He was unhappy at his Boarding School, and worrying over his father, who was a captain in the Merchant Service. I took him on for weekly interviews, kept him at home—the social worker found him "occupational therapy" in a garage, which he enjoyed; at the end of three months his father was due home for leave, we had arranged his transfer to a technical school, and his social quotient on retest was 107.

By way of contrast, a boy, aged 8, with an I.Q. of 101, had a S.Q. of 87. He was an only boy, whose mother had died when he was a year old and had been brought up by a grandmother and two spinster aunts. He was referred for backwardness in reading. He had a year's treatment of combined remedial coaching and play therapy, and though he had made 1½ year's progress in reading, his social quotient was practically the same—86.

I hope that this analysis of a sample of children tested may stimulate your interest in this test. A great deal of work remains to be done. I am at present

trying to standardize the test for English children. The test has been worked out for an American culture, which differs in some respects from our own ; for example, the availability of telephones, and the prevalence of the mail order system in the Middle West. (Example in the film, "Our Vines have Tender Grapes.") I am therefore plotting maturation curves for each item, but so far my total numbers (about 400) only allow of smooth curves in a few items. When this standardization has been done it will be possible to be more precise about the correlation of social maturity with intelligence. How much of social adaptation is due to nurture—how much to nature ?

Another correlation to be worked out is that between social maturity and educational attainments. In about 45 cases the educational attainments had been recorded, and I find that of 40 children the reading age approximates to the social age in 18, as compared with 22 where it approximates to the mental age. The discrepancy is even more marked in number work. Of 43 children tested, 24 arithmetical ages corresponded to the social age, as compared with 19 to the mental age. This corroborates Fleming's dictum that persistence (in learning) is closely related to an atmosphere of social acceptance (18).

A useful avenue to explore would be the range of improvement possible by various forms of treatment, i.e. environmental adjustment, play therapy, individual or group treatment. More work, too, could be done to correlate particular types of test failure—failure in self help, or failures in self direction, self occupation, communication, locomotion, socialization with particular—with certain types of environment or defects of environment. What are the failures of the institution child—the foster child—the displaced person—the only child ? What are the handicaps of the child in the isolated rural community ? Is anti-social behaviour more common in metropolitan areas ? Apparently it is more common in the larger colonies of social birds, such as gulls (19). Do social quotients tend to be lower in cities with populations of over a quarter of a million ? Mumford says robberies occur seven times as often in cities of 250,000 populations as in cities of 10,000 (20).

Will it be possible to give a social prognosis for the individual by a scattergram analysis of the pattern of scoring in the test, analogous to the scatter analysis of the Bellevue Scale worked out by Rapaport ? (21).

Can we detect the potential psychopath at an early age ? I consider that this American maturity scale has great potentialities, as one of the tools of social medicine. No doubt it will be improved, sharpened, made more precise ; but it is also incumbent upon us to master its use, and develop the skills required to employ it to the best advantage.

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