SOME CLINICAL EXAMPLES OF "DYS-SYMBOLE": ITS RELATION TO SHOCK THERAPY.

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A NEW and extremely interesting conception of schizophrenia is opened up by the observation of the sign of dys-symbole made by Skottowe. He has defined this sign as "a state of mind which manifests itself by the inability of the patient to formulate his conceptual thoughts upon personal topics or to discriminate the gradations of his emotions in language which is intelligible to others, notwithstanding that he may be in a state of clear consciousness, while he still retains word-utilizing ability at the level of perceptual thinking, and so is not aphasic in terms of sensori-motor neurology".

It is not usually difficult to recognize the manifestations of dys-symbole in such common symptoms as thought-blocking, neologisms, bizarre delusions and hallucinations usually centred on the head and brain, or more simply by a complete inability to express thoughts on personal topics at all. In other cases the talk is meaningless or incoherent; this is at a later stage in which there is a failure to use the right word-symbols. The words used are inappropriate, and convey something quite other than that which is intended; as Skottowe puts it, "his beliefs are not what his words appear to convey. This I think is a possible explanation of the emotional disharmony of the schizophrenic".

A good illustration of dys-symbole is to be found in the productions of certain surrealist artists. A well-known art critic has said that he finds "a lot of facts whose only claim on my interest is that they are impossible facts—arms that walk, hair made of chains, and men whose heads do develop into bird-cages. Like Desdemona I feel that all this is passing strange and wondrous pitiful". If we examine the verbal productions of some of our schizophrenics we shall find that they approximate very closely to these artistic efforts. It is their very strangeness that strikes us so forcibly. The flow of talk of the manic or confused patient may be irrelevant and difficult to follow, but the language he uses is intelligible, or it would be so in its proper setting, and it is even possible to conceive of ourselves being in the same state. But the very words

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we use to describe the state of a schizophrenic—odd, bizarre, unreal—are evidence of the profound *difference* which is inevitably felt when we encounter such a case.

The conclusion was reached by Skottowe that patients who exhibit dys-symbole do not respond favourably to shock therapy. Florid symptoms may be relieved by insulin or convulsants, but the fundamental disease process is unaltered and will, almost certainly, lead to a further breakdown sooner or later. I would go further and say that dys-symbole is pathognomonic of true schizophrenia.

It would appear then that the older nosologists were not far from a true conception of the condition when they used the term " primary dementia ", the process which takes place being an enfeeblement of the mind starting at the highest levels and progressing more or less rapidly, though sometimes becoming temporarily arrested, to a state of complete dementia. My contention is that this condition is still wholly resistant to all known methods of treatment. We are then faced with the conclusion that shock therapy is not a treatment for schizophrenia at all, but rather for those toxic, dyskinetic and simple paranoid states which can so closely resemble the real malignant form ; and for these states this mode of treatment is almost specific. The classification of social and partial remissions would then be found only to apply to those patients whose florid symptoms have been abated, but who are still demonstrably dys-symbolic. The following is such a case :

CASE 1.—P. P—, a single girl, aged 21. When shock treatment was started she had been ill for about one year. She was clearly oriented and there was no intellectual defect. Her behaviour was silly and childish, she giggled foolishly and made impulsive rushes about the ward. She would whisper and mumble incoherently in response to auditory hallucinations. She was given a course of cardiazol injections and had altogether 13 convulsions. At the end of this there was a slight improvement in her behaviour, but she was still incapable of carrying on a conversation without giggling and grimacing, and it was impossible to get her to talk at all on personal topics. After a short rest she was given a course of insulin shock treatment. She had 69 comas, which included 7 epileptiform seizures. At the conclusion of treatment she was greatly improved, more stable emotionally and able to conduct herself in a normal manner. But she still complained that her head did not feel quite clear and said, " It is due to the spiritualists and mesmerism ".

She was discharged from hospital and I saw her again four months later. She looked well, was neatly dressed, and had returned to her old employment as a tobacconist's assistant. She said that she felt " perfectly well ". I then asked her if she could think clearly ; she replied, " Sometimes it seems as though a veil comes down inside my head and shuts off my thoughts. I want to keep coming here (to the O.P. clinic) because it gives me something to hold on to ".

This case is identical with Skottowe's Case 5, and my only excuse for recapitulating it here is that I saw the girl recently and it was quite obvious that only the most careful handling is going to prevent a recurrence of the more acute symptoms of her psychosis.

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Technique of Elicitation of Symptoms in Difficult Cases.

In the case of patients in a state of stupor, mute and inaccessible, it is obviously impossible to elicit the sign of dys-symbole. This difficulty has been overcome by the administration of sodium amytal. The technique is simple and the effect in certain cases is dramatic. An intravenous injection of sodium amytal gr. 7½ dissolved in 5 c.c. of distilled water is given slowly. The patient passes quietly into a deep sleep, which lasts for a varying period, usually about four hours. On awakening there is a striking change in the mental state ; a mute, resistive patient is transformed into a quiet, pleasantly-spoken individual who is vaguely confused, but often displays a surprising, and sometimes disconcerting, knowledge of events which have happened around him during the time that he was apparently in deep stupor. This state is invariably of short duration ; he relapses into his former state within a very few hours. But during this lucid period it is frequently possible to obtain evidence of the presence or absence of dys-symbole. All cases do not respond so well as has been described, but it has been found that those who do so will also respond satisfactorily to shock therapy ; whereas those in whom sodium amytal produces no effect are equally unresponsive to this treatment. The number of cases so dealt with is as yet too small for any dogmatic statement to be made, but it would appear that sodium amytal should prove of great value in deciding whether or not patients whose state of mind is inaccessible are suitable for shock therapy. A full account of the action of this drug has recently been published by Berrington.

Obviously the only way in which one could convincingly demonstrate the presence and value of the sign of dys-symbole would be by the exhibition or full description of a large number of cases. This is impracticable within the scope of a paper such as this. I must therefore be content to describe a few of the more obvious examples, giving the remainder in the form of tables.

Case 2.—D. N—, aged 18, single, domestic servant. Her illness began suddenly in April, 1938. She became acutely excited, confused and had auditory hallucinations. She was admitted to a mental hospital under a reception order. Shortly after admission she lapsed into a state of stupor, in which she remained until the following September, when she was transferred to the Bucks Mental Hospital. On arrival she was found to be completely stuporose, mute, resistive and apparently in a state of terror. She was given sodium amytal, the effect of which was to relieve her symptoms for about one hour, during which she spoke intelligibly and took her food normally, but was confused and completely disoriented. She relapsed into stupor. Insulin treatment was begun. After 18 comas she began to show some improvement ; she would speak a little, but her conduct was grossly disordered and her habits extremely faulty. She was given an injection of triazol 1 c.c. during hypoglycæmia, with the result that she had a strong convulsion. From that day she began to make an uninterrupted recovery. She was discharged from hospital in February entirely free from symptoms. Although her behaviour was so odd and at times degraded, at no period of her illness did she express any bizarre ideas or display signs indicative of dys-symbole.

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TABLE I.—*Insulin Cases.*

Patient.	Sex.	Age.	Duration of illness.	Diagnosis.	Presence of dys-symbole.	Days of treat-ment.	Number of comas.	Number of fits.	Maximum single dose.	Degree of improve-ment.*	Comments.
1. T. D. L—	M.	27	6 months	Schizophrenia	+	63	54	*Nil*	110	0	..
2. S. P. S—	M.	28	8 ,,	,,	+	90	78	7	110	++	Left hospital against advice.
3. M. V. C—	M.	23	1 year	,,	+	89	71	3	160	++	Left hospital; since relapsed.
4. W. G. N—	M.	33	6 years	,,	+	89	73	7	110	0	..
5. H. H—	M.	23	1 month	Paranoid state	0	53	40	4	60	+++	..
6. E. G—	M.	24	1½ years	Schizophrenia	+	66	39	11	170	0	..
7. N. S—	M.	19	1 week	Toxic exhaustion	0	32	21	7	35	+++	Treatment suspended; complete remission with cardiazol.
8. K. S—	F.	33	11 months	Puerperal	0	36	28	1	50	+++	..
9. P. P—	F.	21	1 year	Schizophrenia	+	79	69	7	70	++	See Case 1.
10. J. M—	F.	25	3 years	,,	+	59	48	3	60	0	,, 3.
11. S. B—	F.	23	2 ,,	,,	+	32	28	*Nil*	50	0	..
12. F. R—	F.	27	7 months	Puerperal	0	70	61	8	70	+++	..
13. O. A—	F.	22	2 ,,	? Schizophrenia	0	57	48	*Nil*	110	+++	..
14. D. N—	F.	18	10 ,,	Stupor	0	41	32	1	40	+++	See Case 2.
15. P. Ph—	F.	25	3 years	Schizophrenia	+	69	55	1	90	0	..
16. V. M—	F.	39	11 years	Paraphrenia	+	78	67	12	80	++	..
17. A. S—	F.	21	2 weeks	Toxic state	0	36	31	*Nil*	60	+++	..

* +++ = Complete remission. ++ = Partial remission. 0 = No improvement.

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TABLE II.—*Cardiazol Cases (Bucks).*

Patient.	Sex.	Age.	Duration of illness.	Diagnosis.	Presence of dys-symbole.	Number of fits.	Maximum dose.	Degree of improvement.	Comments.
1. A. G—	M.	38	2 weeks	Melancholia	0	4	6½ c.c.	+++	..
2. N. S—	M.	19	1 month	Toxic state	0	9	9 c.c.	+++	..
3. G. D—	M.	32	1 year	Schizophrenia	+	10	7 c.c.	0	..
4. J. F—	M.	27	9 weeks	Stupor	0	7	6½ c.c.	+++	..
5. M. S—	F.	35	1½ years	Melancholia	0	18	7½ c.c.	+++	..
6. O. B—	F.	21	1 month	Schizophrenia	+	9	6 c.c.	0	..
7. P. H—	F.	32	3 years	? Schizophrenia	0	11	8 c.c.	+++	Case 6.
8. F. R—	F.	27	7 months	Puerperal	0	15	6 c.c.	+++	See note below.*
9. L. C—	F.	29	2 years	Schizophrenia	+	23	6 c.c.	0	..
10. S. R—	F.	31	3 months	,,	?	8	8 c.c.	++	Left against advice.
11. I. C—	F.	22	3 ,,	Toxic state	0	7	6 c.c.	+++	..

* Subsequently relapsed, but discharged free from symptoms after "summation" treatment.

TABLE III.—*Triazol Cases.*

Patient.	Sex.	Age.	Duration of illness.	Diagnosis.	Presence of dys-symbole.	Number of fits.	Maximum dose.	Degree of improvement.	Comments.
1. V. C—	F.	35	6 years	Schizophrenia	+	12	2 c.c.	0	..
2. J. M—	F.	25	3 ,,	,,	+	7	1·8 c.c.	0	Case 3.
3. E. F—	F.	32	3 ,,	,,	+	19	1·4 c.c.	0	Case 5.
4. G. J—	F.	38	2 ,,	Puerperal psychosis	0	13	1·7 c.c.	+++	..

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I saw her again a short time ago; she is apparently quite well and is now in employment.

CASE 3.—J. E. M—, aged 25, single, domestic servant. She was admitted to hospital on December 20, 1935. On admission she was self-absorbed and had auditory hallucinations. Her behaviour was childish and fatuous, occasionally impulsive. She was unable to sustain a conversation. Her replies to questions were irrelevant and she displayed disharmony between mood and thought. On two occasions she made abortive suicidal attempts. She said that she was "electrically controlled from the war zones". A good example of dys-symbolic expression.

Insulin treatment was begun on August 29, 1938. She had 48 comas (the treatment being terminated early on account of her physical condition). There was a noticeable improvement in her general state; her mannerisms were less prominent, she could converse reasonably well on impersonal topics and for the first time in three years she wrote letters home. She still, however, complained of a feeling of control and was unable to discuss her subjective experiences. Within a few weeks of the completion of treatment she had relapsed into her former state, her content of thought being now quite inaccessible.

It may be argued that if the treatment could have been continued a more lasting improvement would have been obtained. Against this is the fact that later she was given a course of triazol without any material benefit. Furthermore I am now convinced that the majority of those cases which are going to do well do not require prolonged treatment; or at least will show definite signs of real progress towards normality early in treatment.

CASE 4.—P. Ph—, aged 26, single, a domestic servant. Admitted November 16, 1936. During the year preceding her admission it was observed that she was becoming increasingly pre-occupied and disinterested in her work. She expressed ideas of persecution, and said that she received messages from aeroplanes.

On admission she was able to give a good and coherent account of her past life, and showed no evidence of thought-blocking or clouding of consciousness. But she became tense, emotional and incoherent when asked to discuss her present symptoms. After she had been in hospital for some weeks she refused to occupy herself on the grounds that "Parliament" had ordered her not to work. She became increasingly incoherent; her replies to questions were irrelevant; she was acutely hallucinated and had ideas of grandeur and persecution. She said, "There was a fire in Parliament—I was supposed to be the leader of the world—I have been very badly swollen—I am badly controlled". Her stream of talk also included numerous neologisms. When asked if she could think clearly, she made quite spontaneously, the very significant reply: "Yes, thank you; but *I could not express my speech at all. I had to strain myself to people.*" This was given without any suggestion or prompting, and is a perfect description of the subjective sensations occasioned by dys-symbole.

Insulin treatment was begun on December 16, 1938. She had 55 comas. At no time was there the slightest sign of improvement in her mental state.

CASE 5.—E. K. F—, aged 32, single, a gown saleswoman. She had been employed by the same firm for 15 years. Admitted November 22, 1938. Onset of symptoms said to have been gradual over the previous three or four years, but she was able to remain at work until a few weeks before admission.

Her work became increasingly inefficient, she began to drink heavily, and also to show an abnormal interest in sexual matters. On admission she was apathetic and nihilistic. Her speech was clear and coherent; there was no clouding of consciousness. She said she was burning away like a piece of paper. "All people are dead—they have only faces—there is nobody about the streets—wives only look like pins to me. I feel as though I am going into a sea of ink."

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She was given an injection of sodium amytal, but after sleeping for two hours she awoke with her mental state unchanged.

A course of triazol was begun on December 12, 1938. She had 19 convulsions. Her condition one month after the conclusion of the treatment was rather worse. Her behaviour was silly, fatuous and erotic to a degree. She was unable to sustain conversation; she persisted that everyone was dead, and that only " sticks " were walking about. She is completely careless of her appearance and becoming faulty in habits.

CASE 6.—P. H—, a married woman aged 32. Admitted June 9, 1936. Previously employed as a health visitor by a local insurance company.

Family history: Both parents alive and well. Paternal great-aunt and maternal grandfather both insane.

She was admitted in a state of acute distress, weeping copiously, and at first could not speak coherently. Later she calmed down, and was able to give a reasonable account of herself. Her speech was clear and coherent, there was no disorder of language and she gave leading particulars concerning herself correctly. She was in a state of utter misery, but there was no disharmony between her mood and thought content. The latter was largely concerned with the topic of sex. She had been married five years previously; her husband was "no good", and had left her and gone abroad. For the past two years she had been working as a health visitor and had been on terms of intimacy with the manager of the office. She now believed that she was pregnant. (This subsequently proved to be not so.) There was no evidence of hallucinations and her story was corroborated by her parents.

She was diagnosed as suffering from an acute depressive episode arising from acute mental stress, and was treated with prolonged narcosis. On awaking from this she was unduly emotional, shortly afterwards becoming resistive and refusing food. Two months after admission she showed great mental deterioration. She laughed foolishly, stole food from other patients, and became careless in her dress. By November (five months after admission) she was self-absorbed, hallucinated, laughed, grimaced and was faulty in habits.

A note made in April, 1937, describes her as " typically schizophrenic ". She remained in this state, becoming slowly worse throughout that year.

April, 1938: Her behaviour was foolish in the extreme. She destroyed her clothing and was continually faulty in habits. She misidentified her constant attendants.

Cardiazol treatment was begun on May 17, 1938. She had altogether 11 convulsions. After the second convulsion there was a striking improvement in her demeanour, facial expression and behaviour. Very soon she began to help in the ward and to choose her own books to read.

She departed from hospital in August, 1938, apparently fully recovered. I have seen her several times since and she is remaining quite well. She says that she "did not want to get well. I seemed to have found a level. I feel sensible again".

At no time throughout her long illness did this patient show any sign which could have been said to have been dys-symbolic.

CASE 7.—A. G. G—, married, aged 38. A painter and decorator, also a member of the local fire-brigade. He had been in the same employment for twelve years. Admitted April 12, 1938.

A fortnight before admission he had been quite well. He was called to a fire, where the roof and rafters collapsed on him so that he was nearly trapped; he escaped unhurt, but was badly shocked. Thereafter he suffered from insomnia, and developed the idea that he was wanted by the police because he had committed a terrible crime.

On admission he was dull, semi-stuporose, and in a state of profound depression, with gross retardation of his mental processes. He had complete amnesia for the events immediately subsequent to the fire. By degrees it was elicited from him

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that he believed that he had been stealing from his employer (this was untrue), and that he would get into terrible trouble because he had drowned some kittens.

He had no feeling of control and he could think clearly; but he suffered from accusatory auditory hallucinations.

He was treated with cardiazol and had four convulsions. He was then so well that it was thought unnecessary to pursue the treatment further. He became cheerful, stable and industrious, and completely lost his delusions. He said that he felt better than he had ever done before.

He departed from hospital and there has been no return of his symptoms.

So far no case observed showing unequivocal signs of dys-symbole has made a complete recovery, nor has any recovered case at any time shown evidence of dys-symbole.

I have recently had the opportunity of examining 17 cases treated with cardiazol at Littlemore Hospital (Table IV). Many of these cases have had more intensive treatment than I have hitherto thought it necessary to give, and all are still in hospital. (I have purposely excluded the recovered cases as there has been no opportunity of examining them, and consequently I am unable to say whether or not they were dys-symbolic.) All those remaining, however, show this sign in unmistakable form.

TABLE IV.—*Cardiazol Cases (Oxford).*

All patients are males and all schizophrenic.

Patient.	Age.	Duration of illness.	Presence of dys-symbole.	Number of fits.	Leading symptoms or sayings.
1. T. S. G—	22	3 years	+	23	"Microphone under floor throwing up poison."
2. W. P—	26	2½ ,,	+	29	Incoherent; impulsive.
3. D. G—	26	3 ,,	+	31	Difficulty in thinking.
4. R. W—	24	3 ,,	+	17	Disharmony of mood and thought.
5. K. H—	34	8 ,,	+	11	Neologisms; irrelevance.
6. F. F—	22	3 ,,	+	15	Difficulty in thinking.
7. G. B—	29	2 ,,	+	36	Cannot express himself.
8. C. M—	21	3 months	+	15	,, ,,
9. A. H—	38	4 years	+	16	Neologisms.
10. W. B—	27	6 ,,	+	15	Receives messages on fingers.
11. H. W—	19	1 year	+	17	Difficulty in thinking.
12. T. B—	25	2 years	+	17	"Brain feels empty."
13. K. S—	23	6 months	+	30	Impulsive; incoherent.
14. S. P—	22	2½ years	+	12	Demented; unable to converse.
15. J. B—	44	6 ,,	?	8	Mute; inaccessible.
16. A. D—	33	6 ,,	+	5	"Brains are squeezed."
17. J. H—	21	10 days	+	16	Cannot express himself.

TABLE V.

	Insulin.	Convulsants.	Recovered.	Not recovered.	Total.
Dys-symbolic	10	22	0	32	32
Ortho-symbolic	7	8	15	0	15
Doubtful	0	2	0	2	2
	17	32	15	34	49

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Conclusion.

Dys-symbole is confirmed as a valid clinical sign.

It is suggested that this sign is pathognomonic of true schizophrenia, which is synonymous with primary dementia; and is to be differentiated from anomalous schizoid states of different quality which are often labelled "schizophrenia".

Dys-symbolic cases do not recover with insulin or convulsant therapy, although the more prominent symptoms may be temporarily relieved. Hence in this sense, shock therapy is not a treatment for schizophrenia.

Some illustrative cases are described, and the total number surveyed from this view-point are presented in tabular form.

The recognition of dys-symbole then should lead to a more rational and less empirical selection of cases for this, unquestionably valuable, mode of treatment.

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