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PSYCHOSOMATIC MEDICINE AND THE DECLINING BIRTH-RATE

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THE purpose of this paper is to suggest the value of applying a psychological approach to the problem of the declining birth-rate.

CLINICAL OBSERVATIONS

Behavioural sterility as an expression of neurotic anxiety.—During the thirties (1931–39) I acted as a medical referee of insured persons in Scotland. The following notes are based on my experiences and impressions at that time. The group of patients to which they refer cannot, however, be regarded as a random sample of the general population, the majority having been on the sick list for several months and the proportion of psychoneurotic illness among them being high (Halliday 1935).

In the course of questioning patients I came to realise the frequency of the practice of birth control—usually by coitus interruptus. Knowledge of the safe period was not common. I also formed the opinion that, at least during this period of historical time, evasion of parenthood was more often the wish of males than of females—an observation also made by Charles (1936). The evasion, whether in husband or wife, was almost always associated with an underlying neurotic anxiety. The reasons given for the behaviour were often of the nature of rationalisations: the inner emotional state of the patient provided his intellect with apparently logical reasons for not begetting children. (Compare the person who, under hypnosis, is ordered to perform a certain act in the waking state and who, after carrying out the command, on being asked why he acted as he did, produces an apparently logical explanation.) Curiously enough among the artisan and labouring classes the rationalisations seldom referred to economics or finance. In males the commonest reasons given were that "the wife was not strong enough" or he "did not wish the wife to suffer or run risks," or, if there were already one or two children, that he "wished them to have a better chance in life than he had." It will be noted that these statements provide examples of identification of the male either with the woman or with the children—in other words, the husband was ceasing to be a virile father figure. In women the commonest reasons given were that "my husband does not want any more children" or "the doctor says I am not strong enough." Many of the patients (especially those with psychosomatic organic diseases) showed decided obsessional trends in the sense that they tended to arrange their lives in an excessively ordered way—this being an attempt to compensate for deep-seated feelings of anxiety, isolation, insecurity, or resentment. In these individuals behavioural sterility could often be related to their obsessional characteristics in that persons with this rigid character structure tend to experience upsetting events—and these include

childbirth and children—as a threat to the routine design for living which had originated as a mode of defence against a dangerous and upsetting universe.

I noted too that a large number of men were relatively impotent in the sense that they suffered from ejaculatio præcox. Many of the women suffered from relative frigidity as revealed by their statements that they "were not interested in intercourse."

Functional sterility as an expression of neurotic anxiety.—Disturbances of function of the organs of generation are known to occur in certain women in association with deep-seated anxiety. Common examples are modifications in the menstrual cycle and inhibition of the vulvar secretion normally evoked by sexual excitation. Psychophysiological dysfunction may even affect the ability of certain women to conceive in spite of active insemination and in the absence of organic or mechanical faults. This possibility is suggested by psychiatric consideration of individual case-histories and receives some statistical support from serial investigation of sterile women from a psychiatric angle (Wittkower and Wilson 1940). In males, the effect (if any) of the emotions in modifying the vitality of spermatozoa is quite unknown. Functional sterility however is probably of less importance to the problem of national infertility than is behavioural sterility, which by limiting directly the occasions of insemination clearly reduces or removes the chance of impregnation.

Irrespective of these considerations the nature of both these aspects of sterility can be adequately appreciated only when a psychological approach is included in the range of observation and inference. Viewed in this way the pre-war decline in the birth-rate is revealed as only one among the many expressions of a decline in the psychological health of the community, associated with an increase in communal anxiety.

EPIDEMIOLOGICAL CONSIDERATIONS

Birth-rate as an index of psychological health.—Until recently it was customary to regard public health in terms of physical health alone. Thus before the war it was generally stated, and accepted, that the public health of Britain was improving in response to the lessening of various *physical* social evils—e.g., improper feeding, impure water and food, poor housing, inadequate exercise, improper clothing. The indexes used to support this proposition were the improvements in the vital statistics of those events known to have a primary ætiological relationship to the communal environment considered physically. Measurements adopted as a yardstick of the public health included accordingly death-rates, infant-mortality rates, the expectation of life, tuberculosis and infectious disease rates, the height and weight of school-children, &c. But the public health is Janus-faced, and at a time when its physical side was brightening its psychological side was seen to be darkening by those who cared to look at it. The decline in psychological health was revealed by a different series of indexes whose trend took a direction not towards improvement but towards deterioration. These were related to psychological factors of the environment, and comprised not only the

increasing national sterility (as revealed in the declining birth-rate) but also the rising rates for suicide, for psychoneurotic illness, and for the numerous organic diseases now subsumed under the heading of the psychosomatic affections—e.g., gastritis, peptic ulcer, fibrositis, exophthalmic goitre, diabetes, and hypertensive cardiovascular disorders, including certain cases of coronary thrombosis and cerebral haemorrhage (Halliday 1943b). The increase in frequency of these morbid happenings could be interpreted broadly as a response to a progressive increase in noxious pressure of the communal environment considered psychologically—mass unemployment, financial crisis, increasing competition, decline of active religious faith, the loss of an end in view, a general tendency to drift, and a desire for safety first.

INCIDENCE OF PSYCHOSOMATIC ORGANIC DISEASE

Analysis of the incidence of these affections in Britain showed that in the period 1900–39 there was a progressive increase in psychoneurotic and psychosomatic illness. The data are fully presented in the original paper (Halliday 1945), some of whose conclusions relevant to the birth-rate may be mentioned here.

Age.—The rate of rise in the incidence of these disorders was most rapid in the younger age-groups. (There is probably an analogy here with the decline in the birth-rate which became more intense in the younger generations.)

Sex.—The upward trend was steeper in males than in females, except in the cases of diabetes and suicide. This may be stated in another way: diseases which were commoner in females in the 19th century (peptic ulcer, exophthalmic goitre, and perhaps hypertension) became during the 20th century increasingly commoner in males. In the case of peptic ulcer, there was an actual reversal in sex-incidence. Correspondingly, conditions which were commoner in males during the 19th century (diabetes and suicide) became during the 20th century increasingly common in females. In the case of diabetes, there was reversal in sex-incidence. The interpretation of this phenomenon is complicated, but it would appear that with the altering social environment during the period the "personality" of males was becoming relatively more feminine and that of females relatively more masculine. This trend towards neutralisation of sexual distinction in psychological characteristics probably played a part in determining the decline in the birth-rate.

Social groups.—Different social groups showed considerable differences in incidence. For example, in urban areas the rate of neurosis and psychosomatic diseases was definitely greater than in rural areas. This may be compared with the decline in the birth-rate which was also greatest in urban areas (Charles 1936). Unfortunately it is not possible to state whether, as happened in the case of the decline in the birth-rate, the increase in the psychosomatic affections began in the higher-income groups, because figures dealing with their incidence are not available for the beginning of the period studied.

Psychobiological interpretation of the declining birth-rate.—From a biological standpoint, the declining birth-rate is an expression of group reaction to the tota

situation, especially in its psychological aspects. It is therefore inappropriate, even misleading, to regard the phenomenon (as certain writers have done) as a manifestation of a "voluntary decision on the part of individuals." In the mass and in essence, a declining birth-rate is no more voluntary than an increase in the incidence of duodenal ulcer or exophthalmic goitre. In a final analysis it would be seen to represent a predictable biological happening in response to the totality of circumstance.

SOCIAL DISINTEGRATION AND THE BIRTH-RATE

To distinguish between the physical and psychological aspects of public health is pragmatically justifiable and epidemiologically useful. When we adopt this way of looking at things the decline in the birth-rate is seen to be only one of the many manifestations of a morbid communal process which is sometimes identified as social disintegration—a term of wider connotation than that of psychological health (Halliday 1943a). Indexes of social disintegration comprise not only the medical indexes of psychological health already mentioned, but also indexes in terms of other interests—e.g., industrial, economic, religious, and cultural. Writers concerning themselves particularly with the non-medical indexes have also described this social process by various other labels, such as "Western civilisation," "the socio-economic capitalist set-up," or "the break-up of a culture." Social disintegration, however, is probably the most useful general term, because it indicates that the problem—which medically is one of psychology—has other and wider aspects concerned with the structure of society and having a bearing on group survival, whether of family, sect, nation, or race.

World distribution of social disintegration.—Before the present war medical indexes showed that social disintegration affected not only Britain, but also the countries of Western Europe, North America, and the British Dominions. In each of these there was a falling birth-rate, a rising incidence of psychoneurotic and psychosomatic disease, and a tendency towards a rising suicide-rate. These happenings were in great contrast to the findings in primitive races (i.e., non-industrialised native communities) in whom such diseases as peptic ulcer, hypertension, exophthalmic goitre, and diabetes, are either unknown or exceedingly rare (Donnison 1937). Figures of the incidence of psychosomatic disease in Soviet Russia, in which the birth-rate was rising during the twenties and thirties, do not seem to be obtainable.

Origin of the upward trend of social disintegration in Britain.—Study of social history suggests that round about the year 1870 the general communal set-up (religious, economic, social, moral, and cultural) was beginning to disintegrate. "Your creeds are dead, your rites are dead, your social order too," as Matthew Arnold wrote in the '60's. With the break-up of the old order and the increasing uncertainties of the period we may suppose that the generation born in 1870 who became parents about 1900 would be mildly anxious and have fewer offspring than their fathers. The second genera-

tion born in 1900 who grew up through war, strikes, financial crises, and mass unemployment would respond by still further anxiety, so that when they married, about 1930, there would be still fewer children for the third generation and these would be hyper-anxious. This supposition may be related to the following actual numerical facts :

> Taking the fertility-rate (England and Wales) of 1870 as 100%, the drop in fertility by 1900 (the mildly anxious generation) was 25%, and the drop by 1930 (the second and definitely anxious generations) was 59% (Titmuss 1942).

These ideas are illustrated in the following table in which the letters P and C refer to parent and child and the plus sign to the degree of morbid anxiety.

	Degree of anxiety		*Fertility-rate (%)*
1870	P	C	100
1900	P+	C++	− 25
1930	P++	C+++	− 59
1960	P?	C?	?

Social disintegration and individual isolation.—The presence of social disintegration in a community is revealed clinically by its symptoms : that is, by the indexes of the incidence of certain diseases and happenings. The pathology of the morbid process is highly complex but it can be described in a general way as an expression of the rapid loosening of pre-established group-bonds, as the result of which the individual becomes increasingly isolated and therefore increasingly insecure and inwardly anxious. From this viewpoint, its " therapy " would depend on the establishment of new group bonds which would restore to the individual the sense of *belonging*. This indeed happened to some extent on the outbreak of war, but the resulting improvement of the indexes of psychological health has been tempered by many special stresses such as bombing, overcrowding, long working and travelling hours, changes to unsuitable occupation, blackout, and boredom (Halliday 1943a).

It is interesting to note how isolation in an obvious and crude form progressively affected the new life born into the dissolving society of this century. At its very beginnings the infant was to an increasing extent isolated from warm bodily contact with the mother as a result of the decline in breast-feeding and the disappearance of the " shawley wife." Oral play with the nipple was frowned upon, and its substitute, the dummy teat, was consigned to the furnace by the hygienist.

Such curbing of normal infantile tendencies probably modified the unfolding personality of the individual by inducing permanent tensional states of the vegetative and neuromuscular systems. This is suggested, not only by psycho-analytical research, but also by animal experiment. For example, Levy (1928) showed that puppies allowed to receive adequate nourishment but prevented from continuing sucking grew up into dogs that showed distinct character differences especially restlessness, compared to controls from the same litter, who had been allowed to suckle normally.

On reaching the toddler stage, the child encountered further isolation. The progressive decline in larger families ensured that he had fewer playmates and the increasing growth of housing schemes and bungalows tended to segregate him still

further from coeval companions. He was, therefore, thrown more against the parents who began to feel that they were never left alone and their continual reactive prohibitions and admonitions rendered him insecure, retiring, or subdued, and unable to liberate his aggressive emotional life in the active social expressions proper to its age. Perhaps, too, during this period of historical time the pressures of domestic environment tended to favour the development in the young child of obsessional trends as defences against a universe that was sensed to be dangerous and upsetting and against which he felt so powerless. In other words, the particular type of social situation that prevailed increasingly produced individuals with a rigid character structure who "kept themselves to themselves."

On leaving school the child was faced by a world of increasing competition not only in employment but also in social display. The extending propaganda of advertisements and the cinema provided luxury and a good time as ideals. If the individual married it was in response not only to fear but also to fashion that he reacted by inhibited sexual functioning. If a baby were born, the mother (who had probably been engaged in some commercial or industrial employment because by this time women were becoming "free" and "emancipated") resented that she was saddled with a burden not borne by her husband and he in turn, feeling that his wife was an equal and a similar, experienced pity and guilt. Thus parents in their isolation, resentment, and puzzlement became over-anxious and this anxiety was in turn communicated to the child.

The increase in incidence of neurotic and psychosomatic illness during the period accelerated between the two world wars and the general lack of recognition of its ætiological significance (even by the medical profession) provided many potential parents with an alibi—they had no children because of health reasons. In spite, therefore, of improvement of public health services, statistics showed that the nation was becoming more and more unfit, not only for parenthood, but also for work. This was shown by analysis of the statistics of the chronically sick Scottish insured population between 1930 and 1935 (a time of high unemployment and of *not* belonging), when the amount of chronic sickness increased by one-third, the excess being compounded almost entirely of disease labels indicative of neurotic and psychosomatic illness and the greatest rate of increase being in the younger age-groups (Halliday 1938).

INFERENCES AND GUIDANCE FOR ACTION

Approach to the problem of the declining birth-rate from the standpoint of clinical medicine and epidemiology suggests that it is but one of the many symptoms of a social disease whose core is neurotic anxiety. Any attempt at "birth-rate therapy" must take account of this basic consideration. Measures suggested for increasing the birth-rate must therefore aim at diminishing causes of social anxiety. Moreover, as anxiety is contagious, such procedures must be concerned not only with parents but more especially with parents to be—that is, with children.

Many of the causes of social anxiety lie outside the field of medicine proper, but one point may be mentioned

here—namely, that anxiety cannot be bribed away by monetary payments. Thus a system of children's allowances cannot in itself cure social disintegration or remedy the birth-rate, and it is in accordance with reasoned expectation that the effect of therapeutic experiments of this nature should be slight and only temporary—as indeed has been exemplified in those countries which have tried it at a time of declining psychological health.

Therapeutic standards.—Measures suggested for reversing the trend in the birth-rate—for the treatment of social disintegration—require to be tested against two standards :

Primum non nocere.—Is this measure likely to increase neurotic anxiety ? If so, it must be rejected. If not, does it fulfil the second test ?

Secundum liberare.—Does this measure liberate socially integrating forces ?

Illustrative therapeutic measures.—Two illustrations may be given of proposals conforming to therapeutic standards :

> That every mother receive for each child in its early formative years (up to the age of 3 or 5) everything that is required—food, clothes, perambulators, go-carts, baby chairs, utensils—everything—without charge and irrespective of social class.

The positive value of this step is that it would relieve the anxiety of many parents and give them a sense of belonging to the community. It would also have its effect on the infant in that the child would sense it was welcomed. The negative value of the measure is that it would not increase communal neurosis by identifying babies with money or social class. Furthermore, the procedure is evolutionary rather than revolutionary in that it represents a natural extension of the rationing system introduced by the war and would therefore tend to be accepted naturally by all mothers. The linkage of parenthood with child-welfare centres would also be made more complete and satisfactory.

> That day-nursery provision for toddlers and of nursery schools for children up to the age of 7 be extended. This measure would need to be accompanied by intensive and appropriate propaganda.

If these nursery facilities were available *and used*, the present generation of neurotic parents would be relieved of further tensional loads. Moreover, children would tend to develop an immunity to domestic anxiety through receiving it in smaller and spaced-out doses. Through early initiation into the company of other children, the child would tend to grow up with the inner sense of security that comes from belonging to the group. In short, the newer generation would be more at one with life than in opposition to it (as were their parents) through fear, frustration, or exasperation. It may be objected that such proposals "take away the responsibility of parenthood." From the biological standpoint, however, the incidence of births in a group is not a matter of will or morals but is a response to a given social environment.

Further examples of therapeutic measures.—Other measures likely to decrease social anxiety may be mentioned briefly. One is the need to supply sufficient houses suitably planned for family life; this is generally accepted. Another is the need to place such houses so that they form a natural community round a community centre at which, as the Peckham experiment has suggested, a biological health service—as contrasted with a salvage health service—might be located (Pearse and Crocker 1943). Other matters include a reconsideration of the present examination system in schools with its emphasis on aggressive competition as contrasted with a system of scientific selection; vocational guidance; compulsory labour camps or their equivalent; and "social security" in its psychobiological sense—i.e., security against preventable neurotic anxiety. That involves, however, much more than financial provision and much more than can suitably be discussed in a medical contribution whose aim is not to propound a thesis but to illustrate a viewpoint.

SUMMARY

The declining birth-rate in Britain during the last 70 years was very largely an expression, or symptom, of a decline in the public health viewed psychologically (i.e., in "psychological health") and this in turn was only one of the many manifestations of the communal morbid process called Social Disintegration.

Only such therapeutic measures as are based on understanding of the primary ætiological relevance of psychosocial factors can help to provide a generation of young persons less inhibited by neurotic anxiety and, as a consequence, socially more healthy, psychosomatically less incapacitated, and biologically more fertile.

REFERENCES

Charles, E. (1936) The Menace of Underpopulation, London.

Donnison, C. P. (1937) Civilisation and Disease, London.

Halliday, J. L. (1935) *Brit. med. J.* suppl. pp. 85, 99; (1938) *Ibid*, ii, 11; (1943a) *Psychosom. Med.* **5**, 71; (1943b) *Lancet*, ii, 692; (1945) *Psychosom. Med.* **7**, No. 3.

Levy, D. M. (1928) *Amer. J. Ortho-Psychiat.* **4**, 203.

Pearse, I. H., Crocker, L. H. (1943) The Peckham Experiment, London.

Titmuss, R., Titmuss, K. (1942) Parents Revolt, London.

Wittkower, E., Wilson, A. T. M. (1940) *Brit. med. J.* ii, 586.

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7, Adam Street, Adelphi, London, W.C.2.

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THE SIGNIFICANCE OF "THE CONCEPT OF A PSYCHOSOMATIC AFFECTION"

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When the phantoms due to linguistic misconception have been removed, the way is open to more fruitful methods of interpretation and to an art of conversation by which the communicants can enjoy something more than the customary stones and scorpions.

—C. K. Ogden and A. I. Richards in
The Meaning of Meaning.

In an Editors' Footnote to my paper on *The Incidence of Psychosomatic Affections in Great Britain* published in the May issue of this Journal objection was taken to the use of the expression "psychosomatic affection," a term under which I had subsumed such disease labels as peptic ulcer, gastritis, diabetes, the hypertensive cardiovascular disorders, exophthalmic goiter, "fibrositis," etc. The ground of the criticism was that, as the method of approach called psychosomatic medicine could be applied to the whole field of medicine, the employment of the expression *psychosomatic affection* seemed to be "arbitrary." I told the editors that I agreed with the first part of the statement but disagreed with the inference. As a result I was invited to discuss the reasons why I regarded the expression *psychosomatic affection* as a legitimate one. My present task, therefore, is to indicate the way in which this term symbolizes a scientifically constructed reference for certain designated disorders and diseases.

(A) THE NAIVE NEED FOR A GENERAL TERM OF REFERENCE FOR THOSE DISORDERS AND DISEASES IN WHICH THE APPLICATION OF A PSYCHOLOGICAL APPROACH PROVIDES INFORMATION OF HIGH ETIOLOGICAL RELEVANCE

This simple necessity may be illustrated by my own experience which has, however, been duplicated by many others.

After graduation I became a surgical intern and in this capacity I saw many patients with bruises, wounds and fractures. Instinctively I asked most primitive questions. One was: *When* did this happen? Another was: What happened? (*i.e.*, what did the individual meet, or to what physical mass was this bruise, wound or fracture a reaction?) The answers provided data relevant to the etiology of medical events subsumed under the term of Injuries or Accidents. On becoming a resident physician in a large fever hospital I found

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myself asking similar elementary questions: When did the individual fall ill? and, What did he meet? (*i.e.*, what micro-organism had he encountered and what person or "carrier" had been the vehicle of its transmission to the patient? But I added a further question, viz., What kind of person is this? (*i.e.*, what characteristic, or characteristics, rendered him unduly susceptible to the "environmental factor"?) Answers to such questions again provide fundamental etiological information. Next, I served as a member of the staff of a Public Health Department in a large city and there I came to learn still more about environmental factors which brought about the reaction called disease. Thus I learned how the Infectious Diseases, although primarily a reaction to micro-organic life, were also etiologically associated with other environmental factors such as housing, poverty, feeding habits, deficient sanitation, etc. I learned too how many common diseases of infancy were associated not only with micro-organisms or with improper feeding but also with poverty and "feckless" mothers. Even the toxic reactive diseases of industry were not merely a function of a noxious chemical substance but were related to the "sensitiveness" as well as to the carefulness or carelessness of workers. These experiences in preventive medicine enabled me to appreciate not only the complexity of etiology, but they also demonstrated the practical usefulness, as a necessary preliminary to understanding, of the division of diseases into broad causal categories based largely on the nature of the dominating external etiological factor, as, for example, Infectious Diseases, Disorders of Nutrition, Injuries, Intoxications, etc.

After several years in a Public Health Department I was appointed to act, under the National Health Insurance Act, as a medical referee, of insured persons who were sent by their insurance societies for an independent medical opinion on capacity for work. Thus, after many years of clinical experience mainly confined to the infectious diseases and the illnesses of children, I encountered again the disorders of general medicine—but I saw them with fresh eyes so to speak, my outlook on diseases having undergone a change as a result of my training in preventive medicine with its dominant emphasis on etiology. Instinctively I applied myself to find answers to the three fundamental "questions of the etiology of onset" (2) which I had so often asked when investigating a case of infectious disease: (i) Why of all the days in his life did he fall ill when he did? (*i.e.*, to what environmental factor was the illness a response?) (ii) What kind of person was he? (*i.e.*, what characteristic rendered him susceptible to the "causal" environmental factor?) (iii) Why did he fall ill in this way and not another?

This line of enquiry at first yielded little result because it took cognizance only of physical factors of environment. When, however, I began to investigate in addition the patient's emotional upsets and the external events which precipitated them, I began to obtain insight as to why many patients fell ill when they did. Viewed in this way the illness appeared often to be of the nature of a reaction of the individual to upsetting or frustrating factors, *i.e.*, to environment in its psychological aspects (*e.g.*, unemployment, domestic unsettlement, financial stringencies, loss of aim in life, and circumstances inhibiting the expression of particular creative activities). I concluded that *many of these patients would not have taken ill when they did had it not been for the social circumstances of the times* (1930-38) and that by altering social environment in its psychological aspects much incapacitating illness was preventable. Here was a new field for preventive medicine!

The group of disorders in which a psychological approach provided information of high etiological relevance covered a great variety of illness: hysteria; the anxiety states with visceral disturbances (*e.g.*, gastritis, "debility," disordered action of the heart, "rheumatism," "bronchitis," etc.); as well as disorders with definite structural changes (duodenal ulcer, coronary thrombosis, "fibrositis," asthma, etc.). To all these disorders I mentally applied the term *The Affections*, a word which has not only a medical connotation of malady or disease but also a deeper and older significance indicating the mental state, disposition, emotions, feelings, impulses, etc. (Indeed I have sometimes thought that the expression *The Affections* would be more suitable than the one which I finally adopted, namely, *The Psychosomatic Affections*.) Later as I came to realize in addition the etiological importance of the "kind of person" who "takes" these disorders I prefixed the term "psychosomatic" to the word "affection" as it emphasized that these illnesses could be regarded not only as reactions to psychological aspects of environment but also as "disorders of the personality." The insight that the organism could be viewed and considered not only by physical approaches, methods and techniques, but also by psychological ones was therefore supplemented by the insight that the environment of the individual as he grew in time could be viewed and considered not only in its physical but also in its psychological aspects. Seen in this light a "psychosomatic affection" appeared as a reaction of an individual (with his particular inherited endowment) to the flux of his total psychosocial situation—past, present and future—viz. his social conditioning in infancy and childhood, the painful upsetting or frustrating experiences of adult life, as well as his feelings and attitudes towards events yet to be.

A more adequate account of these matters is set forth in my paper, "The Principles of Etiology" (2).

(B) THE DEVELOPMENT OF THE MENTAL CONSTRUCT CALLED PSYCHOSOMATIC AFFECTION

A crude and preliminary definition of a psychosomatic affection would be:

> "a bodily disorder in which the application of the psychological approach provide information of high etiological relevance";

or alternatively:—

> "a bodily disorder whose nature can be appreciated only when emotional disturbances, *i.e* psychological happenings, are investigated in addition to physical disturbances, *i.e.* somatic happenings."

When we adopt one or the other of these tentative definitions we find that a great variety of illnesses and diseases could be assigned to this category and that these involve most of the systems of the body. On reviewing a list of these designated disorders (4) we note that superficially they seem to be unrelated but further consideration reveals that many, perhaps the majority, show peculiarities that distinguish them from illnesses in other categories such as the Infectious Diseases, Injuries, Disorders of Nutrition, etc. and in virtue of which they may be said to possess a common "form." These peculiarities relate both to the behaviour of the illness in time and to the nature of certain etiological factors and may conveniently be summarized by setting them down as a 6-point formula by means of which the construct of a psychosomatic affection becomes developed.

The Formulation of a Psychosomatic Affection

1. Emotion as a Precipitating Factor: Examination of patients in series shows that in a significantly high proportion of cases the bodily disturbance emerged, or recurred, on meeting an emotionally upsetting event.

2. Personality Type: A particular type of personality tends to be associated with each particular affection.

3. Sex Ratio: A marked disproportion in sex incidence, frequently of a "several times" order, is found in many, perhaps most of these disorders. (For the interesting phenomenon of sex-shift, see (5).) This is in marked contrast to what is found in the Infectious Diseases in which the incidence is practically even between the sexes.

4. Association with Other Psychosomatic Affections: Different affections may appear in the same individual simultaneously but the more usual phenomenon, as revealed in their natural history, is that of the alternation or the sequence of different affections. (These "associated, alternating, sequent, or displacing affections" were referred to by Flanders Dunbar in her book *Psychosomatic Diagnosis* as "combined or overlapping syndromes.")

5. Family History: A significantly high proportion of cases give a history of the same disorder or of an "associated disorder" in parents, relatives and siblings.

6. Phasic Manifestation: The course of the illness tends to be phasic with periods of crudescence, intermission and recurrence.

The various items comprising the formula were fully discussed in the paper in which it was introduced (4). All that need be emphasized here is that by adopting a tentative definition of a psychosomatic affection and then "seeing how it works" we find that—*diseases assignable to the psychosomatic category have peculiarities quite distinct from those of diseases primarily assignable to other broad etiological categories.*

(C) THE PRAGMATIC VALUE OF THE CONCEPT OF A PSYCHOSOMATIC AFFECTION

A realization that certain common designated diseases are assignable to the psychosomatic category enables the physician to appreciate as a matter of routine the need for supplementing an academic medical examination by a psychological one if adequate guidance for action (*i.e.*, treatment) is to be attained.

The chief practical value of the concept however is probably in relation to preventive rather than curative medicine in that by its means the occurrence of certain common organic and disabling diseases can be etiologically linked with environment in its psychologic aspects. As an example a few illustrations of the usefulness of the Incidence Rate of psychosomatic affections may be given.

The Incidence Rate of Psychosomatic Affections as an Index

1. As an Index of Communal Frustration: The official annual report on the morbidity statistics of Scottish insured persons for 1937 provided for the first time special data relating to the "chronic sick," *i.e.*, persons on the sick list for a year or more. These statistics show that during the years 1930-35 the rate of chronic sickness in Scotland had increased by one-third. Analysis of the data showed that this increase was made up almost entirely of those disease labels which were indicative of illnesses in the psychosomatic category (1). The rising trends in the incidence of these affections was a striking social phenomenon which was clearly related to the increasing social frustration during the early 1930s following the financial crisis, when unemployment was at a high level;

when, because of the existing scales of relief, it was almost as profitable not to work as to work; and when the way of life among all classes was becoming increasingly dark and uncertain.

2. As an Index of Group or Occupational Morale: In a study of the incapacitating disorders in underground coal miners in Scotland (3) in which it was shown that the incidence of psychosomatic affections (including hysterical manifestations) was definitely higher among underground coal miners than among males belonging to other occupations, I suggested that these incidence rates might be regarded as an index of group morale. (This statement is really oversimplified and the interested reader is advised to consult the original paper.)

3. As an Index of Changes in "Personality Type": My survey of "The Incidence of the Psychosomatic Affections in Great Britain"—the one that occasioned the Editors' Footnote which acted as stimulus to this article—showed, among many other interesting things, that certain diseases which had predominated in males during the nineteenth century became during the twentieth century relatively more frequent in females; and conversely that certain diseases which had predominated in females became relatively more frequent in males. I suggested that this finding was remarkable in that it seemed to provide a measurable index of the changes in psychological characteristics or "personality type" of male and female that had been progressively taking place as a result of altering social circumstances.

4. As an Index of the Psychological (or Social) Health of a Community: There seems to be some relationship between the rising incidence of the psychosomatic affections and the decline in the birth rate. Indeed these, together with the suicide rate, may be regarded as indices of the psychological or social health of the community. I quote a paragraph from the communication (6) in which these matters were discussed:—

> Until recently it was customary to regard the public health in terms of physical health alone. Thus before the war it was generally stated, and accepted, that the public health of Britain was "improving" in response to the improvement of various physical social factors, *e.g.*, improper feeding, impure water and food, poor housing, inadequate exercise, improper clothing, etc. The indices used to support this proposition were the declining rates referring to medical events known to have a primary etiological relationship to the communal environment considered physically. Measurements adopted as a yardstick of the public health included, accordingly, death rates, infant mortality rates, the expectation of life, tuberculosis and infectious disease rates, the height and weight of school children, etc. But the public health is Janus-faced, and at a time when its physical side was brightening, its psychological side was seen to be darkening by those who cared to look at it. The decline in psychological health was revealed by a different series of indices whose trend took a direction not towards improvement but towards deterioration. These referred to medical happenings demonstrated to have a primary etiological relationship to psychological factors of the environment. They comprised not only the increasing national sterility (as revealed in the declining birth rate) but also the rising rates for suicide, for psychoneurotic illness and for the numerous organic diseases now subsumed under the head of the "psychosomatic affections," *e.g.*, "gastritis," peptic ulcer, "fibrositis," exophthalmic goiter, diabetes, hypertensive cardiovascular disorders (including certain cases of coronary thrombosis and cerebral haemorrhage) etc. The increase in frequency of these morbid happenings could be interpreted broadly as a response to a progressive increase in noxious pressure of the communal environment considered psychologically, *e.g.*, mass unemployment, financial crises, increasing competition, decline of active religious faith, the loss of an end in view, and a general tendency to drift and safety first.

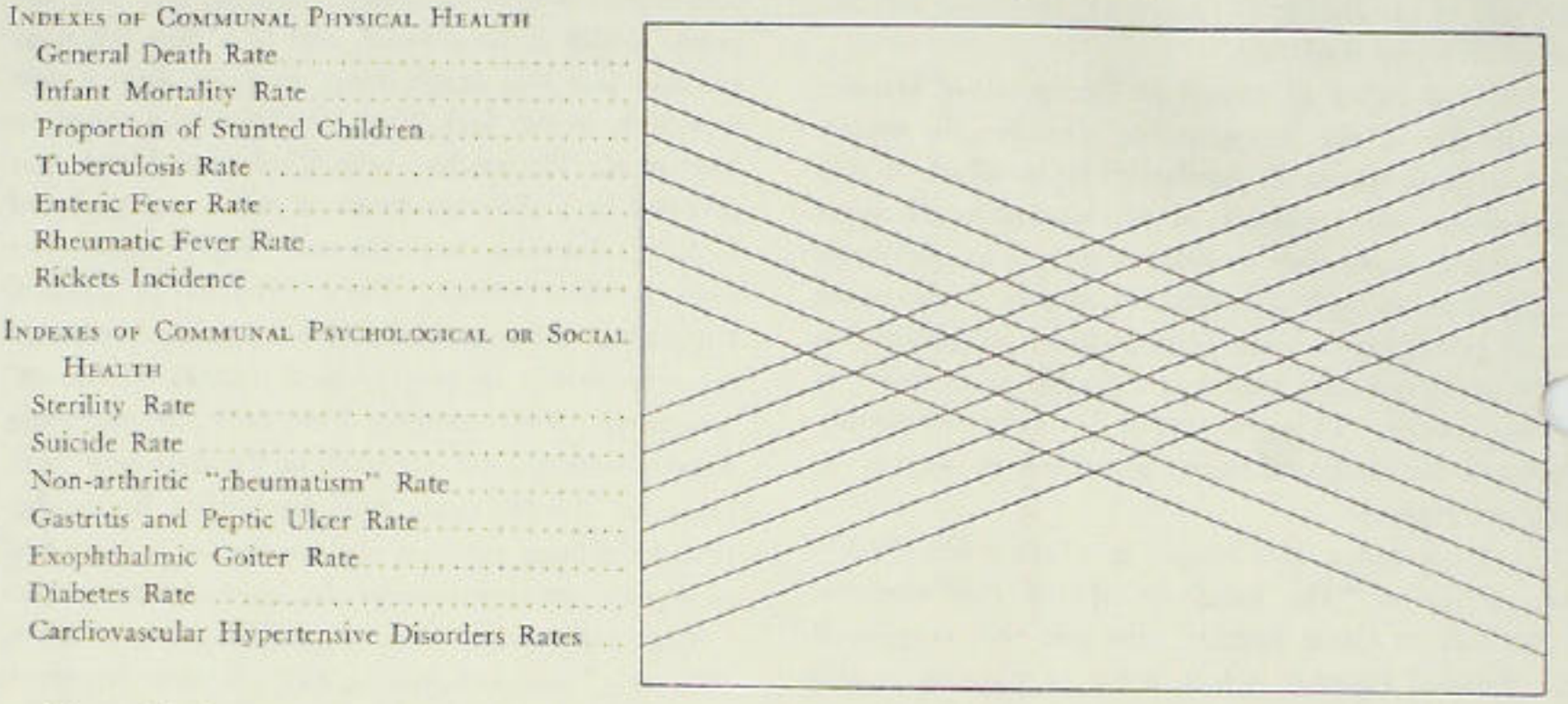
The notion of the *physical and psychological health* of a community may be represented diagramatically. The enclosed figure is an attempt to illustrate the trends of physical and psychological health in Great Britain (1900-1939). It will be seen how the trends took opposing directions. As the figure does not indicate the differential rates of increase and decrease it should not be taken over-literally. Its sole aim is to picture an idea in outline.

(D) FURTHER REFINEMENT OF THE CONCEPT OF A PSYCHOSOMATIC AFFECTION

Consideration of the incidence of the psychosomatic affections (5) enables the concept to be further refined as follows:

> A psychosomatic affection is a disorder that complies with the 6-point formulation, and whose incidence rises or falls in accordance with the rise and fall of communal "upsetting events," *i.e.*, in accordance with the pressure of environment (or environmental flux) in its psychological, as distinguished from its physical aspects.

SCHEMATIC REPRESENTATION OF THE IDEA OF PHYSICAL AND PSYCHOLOGICAL HEALTH
Based on the Trend of Health in Britain (1900-1939)



Note: The items regarded as indexes of "Physical Health" refer to diseases and morbid happenings which are primarily etiologically related to environment in its physical, chemical and micro-organic aspects. The items regarded as indexes of "Psychological or Social Health" refer to diseases and morbid happenings which are primarily etiologically related to environment in its psychological aspects. For the purpose of this diagram the declining birth-rate has been regarded as an increasing sterility rate. The differential rates of increase or decrease are not shown as the aim of the diagram is to illustrate, in a broad way, the notions of physical and social health. In this respect the statistician may regard the figure as "misleading," but the student is more likely to regard it as illuminating.

Comment: The diagram shows how, during the present century, the trend of Physical Health steadily improved whereas the trend of Social Health took an opposite direction. In other words the "good life" in the sense of insurance companies was becoming less frustrated, whereas the "good life" in the sense of the philosophers was becoming increasingly frustrated. The rates of the frequency of sterility, of suicide, and of the psychosomatic affections represent the medical indices only of a morbid process which has been variously designated as "Western Civilization," "The socio-economic capitalist set-up," "The break-up of a culture," etc. From the medical point of view the best name for the communal *morbus* is "Social Disintegration." There are other indices of Social Disintegration in terms of other interests, *e.g.*, Industrial, Religious, Cultural, etc.

DISCUSSION

After all it is better to set out boldly and with intention rather than to wander round declaring there is neither road nor sign post.

—F. G. Crookshank, in the Appendix to *The Meaning of Meaning*.

At the beginning of this paper I stated that I agreed with the Editors' statement that "the method of approach called psychosomatic medicine could be applied to the whole field of medicine." At this point I wish to suggest that a definition of the scope of the psychosomatic approach is clearly an irrelevancy as a ground of objection to the usage of a verbal term. An appropriate basis for an objection of this nature requires the "semantic approach" which takes cognizance of Things (referents), Thoughts (references), and Words (symbols for referents and references).

Viewed semantically, "psychosomatic affection" is a symbol. The facts from which it was derived (*i.e.*, its referents) are well enough established, and the inferences made from these referents (*i.e.*, its references) are legitimate and logical. I therefore see no reason to alter the conclusion to the contribution (4) in which I originally introduced the expression:

> The concept of a psychosomatic affection in its developed form brings into relationship a large number of seemingly unrelated facts. The outlook gained shows that many "localized diseases," the names of which have hitherto been found scattered throughout textbooks of medicine under the headings of the various anatomical systems, may now be grouped under a unifying etiological category. The term psychosomatic affection is therefore a valid symbol which provides a new instrument for thinking, for investigation and for the direction of action.

But these conclusions in no sense imply that with further investigation further referents may not be discovered which will require us to alter the present reference and also perhaps to modify its symbolization. Indeed it is after such a manner that scientific knowledge advances.

SUMMARY

1. The mental construct (or concept) symbolized by the term *psychosomatic affection* is in no way imposed upon facts but is derived from the arrangement of the facts themselves.

2. It has proved itself pragmatically justified—it fits and it works—and it has important practical applications, especially in vital statistics, epidemiology and applied social medicine.

3. Far from being "arbitrary" it has a genuine creative value.

REFERENCES

1. Halliday, James L.: The rising incidence of psychosomatic illness. Brit. Med. J., 2:11, 1938.
2. Id.: Principles of etiology. Brit. J. Med. Psych., 19:367, 1943.
3. Id.: Dangerous occupation; psychosomatic illness and morale. Psychosom. Med., 6:71, 1943.
4. Id.: The concept of a psychosomatic affection. Lancet, 2:692, 1943.
5. Id.: The incidence of psychosomatic affections in Britain. Psychosom. Med., 7:135, 1945.
6. Id.: Psychosomatic medicine and the declining birth-rate. Lancet, 1945. (In course of publication.)