

## ON AFFECTIONS OF SPEECH FROM DISEASE OF THE BRAIN.

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IN the first\* instalment of this article ('BRAIN,' Vol. I. Part III., p. 304) it was pointed out that there are necessarily numerous degrees and kinds of affection of language, since "different amounts of nervous arrangements in different positions are destroyed with different rapidity in different persons." Moreover cases are vastly different in their different stages; a patient may be quite speechless for a few days, and afterwards improve so as to have at length only slight defect of speech; and of course there are numerous cases of complete recovery. It is necessary to make some division of cases; we roughly made three groups (see p. 314, Vol. I.). We were careful to declare that this division was an arbitrary one, that it was not a scien-

\* I should like to remark that one very general conclusion to which the several facts so far stated, and facts afterwards to be stated, point, was in principle long ago formulated by M. Baillarger. So far back as 1866, 'Med. Times and Gazette,' June 28, I made the following quotations from his writings, which I now reproduce:—

"L'analyse des phénomènes conduit à reconnaître, dans certains cas de ce genre, que l'incitation verbale involontaire persiste, mais que l'incitation volontaire est abolie. Quant à la perversion de la faculté du langage caractérisée par la prononciation de mots incohérents, la lésion consiste encore dans la substitution de la parole automatique à l'incitation verbale volontaire."

I ought to have reproduced this quotation in the first instalment of this article, as evidently I am following pretty closely the principle this distinguished Frenchman has laid down. For the satisfaction of curious persons, I may say that I give it now spontaneously, no one having drawn my attention to the omission. I fear M. Baillarger's acute remarks have attracted little attention, and I say with regret that I had forgotten them. I do not remember from what book I took the quotation.

tific distinction. The divisions usually made are arbitrary too, although the nomenclature being in highly technical psychological and clinical terms, they may appear to the unwary as being real, almost natural, distinctions. As was then insisted on, we must in an empirical inquiry take type-cases; we follow the plan which is tacitly, if not avowedly, adopted in every work on the "Practice of Medicine" with regard to all diseases.

We took for first consideration the simplest group—cases of Loss of Speech (No. 2), p. 314; Cases of Defect of Speech (No. 1), and that deeper involvement of language in which emotional manifestations (No. 3) scarcely remain, are more difficult, and will be considered later. We take the simple case for investigation first, just as, were we writing on hemiplegia, we should take first the simplest case of that paralysis, not the more difficult case, in which there are deep loss of consciousness and lateral deviation of the eyes and head, as well as paralysis of the face, tongue, arm and leg. A patient who loses speech may regain it; it is convenient to consider cases of permanent speechlessness.

On pp. 316 *et seq.* we made some brief general statements as to the speechless patient's condition; we especially insisted on the necessity of recognising a positive as well as a negative element. I feel convinced that unless in all degrees of affection of Language we recognise that the symptomatic condition is duplex, we shall not trace relations betwixt them, and shall be misled into supposing that cases are different in kind when there are only differences of degree. We have remarked on this, p. 316. Further, we shall not be able to trace analogies betwixt these examples of Dissolution beginning in the lower cerebral centres, and cases of Dissolution beginning in the highest centres, that is to say, cases of Insanity where the condition is manifestly duplex. The most important thing showing the duality of the speechless man's condition is given very generally by saying that Speechlessness does not imply Wordlessness. We stated that there is not evidence that the process of perception is damaged in itself; we say "in itself," admitting that perception may suffer from lack of co-operation of speech-use of words.

We have now to consider more particularly the condition of the patient we call speechless. In most cases there remains some utterance. But to utter words is not necessarily to speak. To speak is to propositionise. We admit, however, that in some cases which we call loss of speech there is a recurring utterance, viz. "yes" or "no," which is of propositional value; and that occasionally there occur utterances which are of propositional value, and are made up of several words. But in these cases the recurring utterances which have propositional value are so very general in their application, and the occasional utterances which have propositional value are so rare and usually also of so very general application, that it is almost pedantic to say the patients are not speechless. Nevertheless there are exceptions to our statement that there is *loss* of speech in the type-case (No. 2), and full consideration will be given to them.

We divide the utterances into two classes, Recurring and Occasional.

(1.) *Recurring Utterances.*

Soon after the attack, there may be no sort of utterance. But almost always one comes in a few days or weeks. I used to call them "Stock Utterances." They are always utterable; and they alone remain, with the exception of the rare occasional utterances. We make four divisions of Recurring Utterances.

(1) It is sometimes jargon. In one case it was "Yabby," in another, "Watty." Sometimes there is a succession of different jargon; in one case, "Me, me committimy, pittymy, lor, deah." The patient utters his jargon any time. If he "says" anything, it is always "Yabby," or whatever his jargon may be; in reality he *says* nothing with these utterances; they have no propositional value whatever.

(2) Sometimes the utterance is, what to a healthy person is, a word, as "man," "one," "awful," &c. Such a word is, for use, no better than jargon in the mouth of the speechless patient; it is not a word to him; "man," as a recurring utterance, is not a symbol for a human being. The so-called word comes out, just as "yabby" does, and means no more,

means nothing. A single word might have, in a healthy person, propositional value. For example, were a person asked how many oranges he would buy, the reply "one" would be a proposition. (See p. 312.) But the speechless man's recurring "one" comes out whenever anything comes out, and applies to nothing at all.

Here, having given some examples, I may make one general remark about all kinds of Recurring Utterances. The rule is that the particular recurring utterance each person has at first never changes. Sometimes, however, but exceedingly rarely, it changes. A patient of mine for some months, when under my care in the London Hospital, could only utter the word "Dick." Later it changed to "Jimmy," with the variations of "Jim" and "Jigger." Another general remark is that although these rags and tatters of what was once the patient's speech are of no use as speech, they serve as parts of emotional manifestations; it is rather, we should say, the tones in which they are uttered; it would be most correct to say the patient "sings" his recurring utterance—variations of tone with healthy speech being rudimentary singing (Spencer).

In this service of these, as also in that of the other recurring utterances, we have evidence that Emotional Language is not affected.<sup>1</sup>

The way in which speechless recurring utterances serve patients is exemplified in some cases noted in the Hospital Reports of the *Lancet*, February 17, 1866, and July 20, 1867. Several other things of importance for other departments of our subject are given in the following extracts.

"The patient we saw could only utter the word 'Dick,' and this word he uttered whenever we asked him a question. We were told that when the man was vexed by the other patients in his ward he would swear. He generally used the common explosive sound, so much in favour with English swearers. He could not, however, say the word when required to do so, even whilst it was well kept before his mind by frequent repetition. He seemed to make efforts to say it, but the word

<sup>1</sup> I would not affirm that the finest emotional manifestations may not be lost in cases of loss of speech; I do not know that they are. It would be very remarkable if they were not.

'Dick' always came out instead. The oath was only uttered under the influence of emotion, and could never be repeated at will."—The *Lancet*, Feb. 17, 1866.

The following is a further note of the same case from the *Mirror of the Lancet*, July 20, 1867.

"When the poor fellow left the London Hospital he was able to utter the word 'Dick' only, except that he swore when vexed. He is now in a workhouse, where, thanks to the permission of Dr. E. H. Moore, Dr. Hughlings-Jackson saw him a few weeks ago. Strange to say, the patient's stock phrase is now 'Jimmy;' he never says 'Dick.' Although it is two years since the patient left the hospital, as soon as he saw the doctor he raised himself eagerly from his chair, offered his left hand—his right is still paralysed—and cried out very vivaciously, 'Jimmy, Jimmy,' &c., evidently pleased to see some one whom he knew. The ward superintendent says the patient sometimes sings; that the word he then uses is 'jigger.' He is usually quiet; but when vexed he swears, or rather utters a very nasty word, the last syllable of which rhymes to the last syllable of jigger. He cannot say this word when he tries, but, when trying, says 'Jim' instead. 'Jimmy' seems to be the word he uses as an ejaculation to show states of feeling, and 'Jim' when he is trying to convey information. When asked to show how many children he had, he extended his left five digits twice, and at each extension he uttered jerkily the word 'Jim.' At a second visit, the man replied to the same question in the same way; but there are no means of knowing whether his reply is a correct one or not. He does not tell the number of days in the week by this plan. He sang when asked; and although the performance was of the very poorest kind, there was cadence with variation of tone. In one of these efforts he used as a vehicle of sound the word 'Jim,' in another, 'jigger.' The ward superintendent remarked that the man's friends had not visited him since Christmas. Here the patient clenched his fist, tightened his lips, face, and neck, holding his breath, and turning red the while, as if making an effort. After a moment or two he sighed deeply and relaxed, shook his head, and looked as if he had given up an attempt to do something. The attendant believed the

patient was 'trying to talk,' and said he often saw him put himself in that way. As Dr. Hughlings-Jackson was leaving the room, the patient left by another door, but in passing through the doorway he stopped, and turned his head as if he had suddenly remembered something, looked towards the doctor, and said pleasantly, 'Jim, Jim.' It was supposed that this meant good-bye."

I may here mention that I did not get to know if the patient had sons of the name of Richard and James (*vide infra*).

The following is from the same *Mirror* of the *Lancet* as the last quotation. It shows a certain *use* of the jargon "ow," during the expression of number, as well as its use as the proposition "yes."

"In another workhouse Dr. Hughlings-Jackson saw, with Dr. Edward Richardson and with his assistant, Mr. Widdas, a woman twenty-five years of age, who is only able to utter the phrase 'Oh! my God!' and the noise 'ow'—probably a corruption of oh! When the doctors went up to her bed and spoke to her, she cried out 'Oh! my God!' When next spoken to, she said 'Oh!' and then put her hand over her mouth. She uttered the phrase several times in the interview; but she 'spoke' with the syllable 'ow,' expressing assent or dissent by the tone she gave to it, and by her manner. She was asked how long it was after her confinement before the loss of speech came on. She held out her five left fingers, and said 'ow,' and then separating one finger from the rest of those of the paralysed right hand, again said 'ow.' The doctors said interrogatively, 'Six?' She nodded, and said 'ow.' They then asked whether weeks, months, or years, really themselves knowing the right time. By variation of tone of 'ow,' by nodding and shaking the head, she expressed assent or dissent when the right or wrong period was named. She laughed heartily when something jocose was said, crying out 'Oh! my God!' When the death of her baby was mentioned, her eyes filled with tears. The nurse says the woman was once in her ward before, and then the words uttered were 'Oh! my goodness will!'"

(3) The Recurring Utterance is sometimes a phrase. In one case "Come on," or sometimes that patient uttered "Come

on to me." In another case, just mentioned, it was, "Oh! my God!" In another case, mentioned to me by Dr. Langdon Down, "Yes, but you know."

In some cases, as in the one first mentioned, the patient may utter "yes" or "no," or both, in addition to his recurring phrase—see (4). He has then two sets of recurring utterances.

These phrases, which have propositional structure, have in the mouths of speechless patients no propositional function. They are not speech, being never used as speech; they are for use only compound jargon; they or their tones are at the best of interjectional value only. The man who uttered "Come on to me," uttered it on every occasion when he made a rejoinder to anything said to him.

(4) A common thing is that the patient retains as his sole utterance "yes" or "no," or both these words. Sometimes there is in addition some utterance of one of the other divisions. This must be carefully borne in mind. We shall consider the utterances "yes" and "no" at length. It is the most important part of the whole inquiry. The consideration of these and of some other fundamentally like phenomena will help us out of the empirical stage of divisions into the scientific one of distinctions.

To speak is, as has been said, to propositionise; many verbal utterances by the healthy are not speech. Now the words "yes" and "no" are propositions; indeed to call them "words" is not to acknowledge their proper rank; "proposition-words" might be a more correct expression. But they are not always propositions—are not always used for assent and dissent; and thus the term "word" is convenient, if not strictly accurate.

It does not matter what the philological history of the words may be; at any rate "yes" and "no" stand for propositions. They are propositions in effect; we can *say* with them. Nor must we limit ourselves to the very syllables "yes" and "no." One of my patients had the utterance "Eh," which was "yes" for him, and possibly was a corruption of his healthy "yes." Were we now dealing with the less special part of intellectual language, pantomime, we should admit nodding the head for assent and shaking the head for dissent to be pantomimic propositions. With the other recurring utterances, (1), (2), and

(3), the patient says nothing; they are a mere series of syllables; the so-called words and phrases (2 and 3) being intellectually dead. Is not there then in the utterance of "yes" and "no" a real exception to the statement that our patient is speechless?

An utterance is or is not a proposition according as it is used.

(a) The speechless patient may utter "yes," or "no," or both, in different tones, merely according as he is thus or thus excited. It is then not a proposition, but an interjection, a mere vehicle for variations of voice, expressive of feeling. (b) He may have this service of the words and be able also to reply with them; the latter is a propositional use of them. (c) He may (in addition to (a) and (b)) be able to say the words when told to say them.

(a) A speechless patient may utter "yes" and "no" without any sort of application. He may utter "yes" when he means "no," and "no" when he means "yes." He may nod when he utters "yes." He may affirm or deny by the less special language of pantomime when he cannot use for affirmation and denial the words of affirmation and denial which he can glibly utter. They are not, therefore, propositions to him. Nevertheless, this low degree of the utterances serves him. He utters "Yes," "yes," "yes," or "No," "no," "no," merrily, or he utters them sadly, when respectively glad or sorry. That is to say, although he has not the propositional use of "yes" and "no," there is that emotional service of them which other speechless patients have of their recurring jargon, words or phrase (1; 2, 3). His utterances of them in various tones are revelations to us of his varying emotional states. We must be careful not to give *such* utterances of "yes" and "no" the credit of being propositions. From the tones in which they are uttered, we may understand or guess how the patient is feeling; and with the conspiring aid of the then circumstances, we or his friends may often *infer* what he is thinking. But so we could by the tones in which the recurring jargon (1) or phrase (2) is uttered. Like smiles, they are, when so used, not signs for emotional states, but they are, or rather the tones of them are, *parts* of this or that emotional manifestation. On the other

hand, if the patient who generally uttered "no" at random, *used* "no" in a particular tone, in order to signify that he dissented, it would be speech, or at any rate of speech-value; and so it would be speech or of speech-value if a speechless man used his jargon with the same intention. The woman who uttered "ow" (p. 208) could express assent or dissent by the different tone she gave to it. The following is a striking case.

I have seen a patient who nearly a year before had become rapidly apoplectic. On recovering from this condition, he uttered only "low," but soon he uttered "no," and when I saw him he had nearly recovered speech. His articulation was defective, but his wife could understand what he said, not merely guess his meaning, and I could nearly always do the same. He could express himself in writing, and could read. For the moment using popular language ("*without prejudice*"), he had the mental power of speech, but had defect in the executive. But he very often uttered the word "no" when he meant "yes:" this is a very rare thing in the midst of so much recovery of speech. In reply to one of my questions, he uttered "No," "no." His wife said he meant "yes:" he nodded. Later in our investigation he uttered "no;" but his medical attendant, alive to his misuse of that word, said, "Do you *mean* 'no'?" The patient showed that he did by re-uttering it in a ceremonious, slow, decided, tone. Thus the patient *uttered*, in a tone to signify dissent, the word which, as usually uttered by him, would not have meant dissent.<sup>1</sup>

Here plainly "no" was not a proposition, but the tone it was uttered in was of propositional value—at least vocal pantomime. It matters not what trick or dodge (tone of voice, cardsharp's smile, &c.), be used to express assent or dissent, or to express any relation betwixt things; if so used, there is a proposition.

<sup>1</sup> Tylor says that in some languages, "especially in South-East Asia, rises and falls of tone to some extent, like those which serve us in conveying emphasis, question and answer, &c., actually give different significations. Thus, in Siamese, há = to seek, hā = pestilence, h̄a = five. The consequence of this elaborate system of tone-accentuation is the necessity of an accumulation of expletive particles to supply the place of the oratorical or emphatic intonation, which, being thus given over to the dictionary, is lost for the grammar."—'Primitive Culture,' vol. i. p. 153.

Some years ago I had under my care in the London Hospital a man whose sole utterance was "no," and something like "eh," which was "yes" to him. His wife told me he could make the children "behave when they were at the top of the yard" by shouting out "No," "no," "no," in an angry tone. These emotional utterances of his may seem to have some slight propositional flavour; he may have *used* "no" in an angry tone, not merely uttered it during vexation.<sup>1</sup> This, however, is doubtful. The patient could reply "no," but the slight degree of his power of expressing himself may be judged of by his way of getting his children to understand what he wanted. He would make one stand before him; she would guess one thing after another until, by quickness or by lucky accident, she guessed what he wanted, or until he knocked her down with his fist. I shall have to refer to this case several times, and shall therefore call the patient "Dow."

(b) In some cases of loss of speech there is a use of the words "yes" and "no," which is higher than a mere emotional service. The patient can reply with them. Here then is evidence that the so-called speechless man is not absolutely speechless; he propositionises by "yes" and "no." Now we come to a very important matter. In the case of "no," at least the use of that word does not in all patients reach the level of normal speech: or, speaking more correctly, the patient cannot utter that word in all the ways healthy people can. He may be, as aforesaid, able to reply "no" to a question requiring dissent, when he cannot say the word when he is told and when he tries. This has been observed and commented on by Sir Thomas Watson, in the last edition of his 'Practice of Physic.' I found it out when giving a clinical demonstration of "Dow's" case. I told the students that he could utter the word "no;" but, to my chagrin, when I asked him to utter it, there was nothing but an articulatory effort. However, on asking him the preposterous question, "Are you ninety years old?" the word "No" came out at once. Again I asked him to "say no;" his efforts were fruitless, but we readily got the word out

<sup>1</sup> If a speechless man retains the two words, it is reasonable to suppose that the emotions of fear and anger would, to speak figuratively, appropriate the negative one, and that emotions of joy and sympathy would appropriate the affirmative.

of him again by asking another question, which obviously required a reply of dissent. His difficulty was not from nervousness: his wife had found out, before I did, that he could not say "no" when he tried.<sup>1</sup>

I find that I have led Kussmaul to misunderstand me on this matter. This distinguished physician writes: "Jackson and Sir Thos. Watson have even found that aphasic persons, unable to reply 'no' to a question, have nevertheless been led to do so by suggestions designed to make them angry, e.g. 'were they a hundred years old, or a thousand?' or such like." The questions were not designed to make the patients angry, and did not make them angry. The patients I speak of could reply by "no" at any time. A very preposterous question was asked in order that there might be no possible doubt that a negative was required. And I submit that the rejoinder "no" to such a question by the patient "Dow" was a reply, that it was "no" as a proposition; that it was speech, although inferior speech (not incomplete speech); and that it was not "no" as a mere utterance, like an oath coming out in anger. This patient, as I have stated, did use the word emotionally when vexed; but not so in rejoinder to the preposterous questions I asked him.

(c) In many cases of loss of speech, the patient, besides having the emotional service and also the power of reply with the words, can say "yes" or "no" when told (he has the full use of) these words. It may be said that this third degree of utterance of the word is not speech; that it is uttering the

<sup>1</sup> The following is from the 'Hospital Reports' of the 'British Medical Journal' December 2, 1871, and refers to a case of loss of speech: ". . . She was told to say 'No,' and could not. Directly afterwards, Dr. Hughlings-Jackson, observing she had a book on her lap, asked if the patient could read. Hearing this, the patient herself looked up and said, 'No, no, no.' She was again told to say 'no'; she could not. The nurse, having observed this peculiarity in another patient, said, 'Are you a hundred years old?' The response was 'No,' with a smile. Once more the patient was asked to say 'No,' but again she failed. . . ." It must be added that in her ordinary "conversation" she sometimes said "no," when she meant "yes." In some cases there is no difficulty in saying "no." Thus there is in the London Hospital an old woman who can utter only the words "yes" and "no," and "titty," "titty;" and another old woman who has both these words and the utterance "I'm very well," or "Very well." Each of these patients can say "no," when asked. Hence it is admitted that some aphasics have the full use of these words.

word as an articulatory gymnastic "for the sake of uttering it," not *using* it as a proposition. There are weighty reasons, however, for drawing attention to the three degrees of utterance of this word. The inability to say "no," when told, with ability to utter it in reply and also emotionally, is one of the most important facts in the matter of affections of speech. I shall speak on this matter after considering analogous peculiarities.

To resume. In some cases called *loss* of speech there is not absolute loss. The utterances (1) and (2) and (3) are not exceptions; the utterances "yes" and "no," in reply, are exceptions, these words being *used* as propositions.

These exceptions are very significant. The man has lost all speech, except the two most general, most automatic, of all his propositions. They are indeed very significant exceptions to the empirical division into loss of intellectual and conservation of emotional language; for, even regarded superficially, they stand on the border ground. These words are used by healthy people, now one way, now the other; they are sometimes parts of emotional manifestations, and may then be combined with an ordinary interjection, as in "oh! yes," or be duplicated as "no, no;" here the second "no" at any rate is interjectional. They are at other times used with full and definite propositional intent to signify "this is so," or "is not so." The word "yes" may be used at the same time, both for sympathy and agreement, it being occasionally hard to say whether the intellectual or the emotional side is more visible. Similarly some movements are at once pantomimic and gestulatory.

We hear these words used nearly purely emotionally, very often. A woman suffering from pleurisy and in great distress, replied "no" to a question, used the word propositionally, and then went on uttering the word as a vehicle of tone, "No, no, no," in just the same way as she had been uttering "oh!" before the question; that is, it served her emotionally. A healthy man, told suddenly a piece of startling news, cries "No!" using "no" not actually to deny the truth of the statement; indeed he does not use it as a proposition; it is an ejaculation of surprise, equivalent to the exclamation "Non-

sense!" or "You don't say so!" These so used are interjections, not speech, and take low rank in language, little above that of bodily starts, parts of common emotional language. At the best they are propositions, entirely subordinated to the service of an emotion.

Then propositionally "yes" and "no" give assent or dissent to anything whatever; they are the blank forms of, or stand for, all negative and positive propositions—are, as it were, propositions almost reduced to positive and negative copulas. From their almost universal applicability they are very frequently used; they are the most general, most automatic, and most organised of all propositions. They are then exceptions proving the rule; the patient has lost all speech except these two propositions, which are at the "bottom" of Intellectual Language and at the "top" of Emotional Language. In other words, the retention of these two words is not exceptional to the principle of Dissolution. The reader may, however, urge that the other recurring utterances are exceptional. I hope to show, later on, that they are not. At present, I only say that I believe them to represent what was, or to represent part of what was, the last proposition the patient uttered or was about to utter when taken ill.

### (2) *Occasional Utterances.*

These utterances are rare, except that some patients swear very frequently. We shall make three degrees of these ejaculations :

- (1) Utterances which are not speech ;
- (2) Utterances which are inferior speech ;
- (3) Utterances which are real speech.

(1) Under excitement, the speechless man may utter "Oh!" or "Ah!" More than this, he may swear, or utter certain nasty words used by vulgar people when excited. (We use the term swearing in the wide sense of what is popularly called bad language; of course religious commination is not considered.) The occasional utterance may be an innocent ejaculation, as, "Oh dear!" or, "Bless my life!" None of these utterances are speech;

they have no intellectual meaning. Moreover, the patient cannot repeat them when he tries; he "utters," but does not "say." This will remind the reader of what was said of some patients who can reply "no," but cannot say that word when they are told to try. The patient "Dow" uttered the word "damn," one night, when vexed on his daughter coming in very late. Her mother told me of their surprise, and that her daughter said she would stay out late every night to get him to speak. But he could not repeat the expression. I never heard of any utterance in his case but of "damn" on that occasion, and his recurring "no" and "eh" (yes).

As said above, it is not a question of oaths only, but of ejaculations in general (interjections simple or compound).<sup>1</sup> They are all parts of emotional language; their utterance by healthy people is on the physical side a process during which the equilibrium of a *greatly* disturbed nervous system is restored, as are also ordinary emotional manifestations. (All actions are in one sense results of restorations of nervous equilibrium by expenditure of energy.) In some people oaths and vulgar interjection have become very deeply automatic; some people swear largely along with their ordinary unexcited speech, perhaps to give emphasis to commonplaces. In these people the oaths are almost as automatic (their nervous arrangements being strongly organised) as smiles and frowns; they are, so to speak, "detonating commas." No wonder that they are Occasional Utterances when these patients are speechless. Few women swear, but their ejaculations of surprise or vexation (feminine oaths), as "Oh! dear," "Dear me!" "How very tiresome!" belong to the same category. The aphasic woman, whose recurring utterance was "me, me," &c., once ejaculated, "God bless my life!"

<sup>1</sup> I take the following from an unsigned review in the 'Journal of Mental Science' for April 1878, p. 125: "The value of swearing as a safety-valve to the feelings, and substitute for aggressive muscular action, in accordance with the well-known law of the transmutation of forces, is not sufficiently dwelt on. Thus the reflex effect of treading on a man's corn may either be an oath or a blow, seldom both together. The Scotch minister's man had mastered this bit of brain-physiology when he whispered to his master, who was in great distress at things going wrong, 'Wad na an aith relieve ye?'"

It has been said that he who was the first to abuse his fellow-man instead of knocking out his brains without a word, laid thereby the basis of civilisation.

(2) There are occasional utterances which are real speech, but inferior speech. This remark may be indefinite, but illustrations will show what is meant.

I saw, in consultation, a patient who had the recurring utterances "no" and "what." This patient was heard by his doctor to say "Wo, wo!" when standing by a horse. This patient once uttered "That's a lie," which is an expression often used by vulgar people as a verbal missile, that is emotionally rather than propositionally; it therefore comes under No. 1. The utterance "wo, wo!" is the one I wish to draw attention to now. "Wo, wo!" is a proposition to those who use it, if not to animals; it means "stand still."

A woman who could only utter the phrase "Yes, but you know," once said "Take care!" when a child was in danger of falling. A patient of Trousseau's said "*merci*," when a lady picked up his handkerchief. A patient of mine would, besides swearing when vexed (No. 1), say "Good-bye," when a friend was leaving him.

The man who said "Wo, wo!" could not repeat it; and the lady could not repeat "Take care!" The friends of Trousseau's patient thought he was beginning to speak; but he could not repeat the word. My patient could never say "Good-bye," except under the appropriate circumstance; his daughter had found this out herself.

The following is from a communication made to the *Lancet*, May 18, 1878, on this patient's case. Several different phenomena are mentioned; they are all of the same order, in so far that they show conservation of automatic with loss of voluntary action.

"I have seen a patient who usually sat up in his room, whose face looked intelligent, who was cheerful and merry, and who seemed to understand all that I said to him, but who could not put out his tongue when he tried. His daughter remarked that he could put the tongue out, as she expressed it, 'by accident,' and added, as an illustration of her meaning, that when any one was leaving him he could say 'good-bye,' but that he could neither put out his tongue nor say 'good-bye' when he tried. He could say 'yes' and 'no' at any time; and, using the lady's expression, could say 'good-bye,' 'well,' 'never,' *by accident*.

She further remarked that the patient would sometimes swear. He uttered the short explosive word which is so much in favour with English swearers, but he could not, she said, repeat the word when he tried. She asked him to utter the explosive sound when I was there, saying it herself for him to imitate. He laughed, and shook his head."

Admitting the utterances (No. 2) to be exceptions, we have to note that, as exceptions, they are significant. They are true speech, but they are inferior speech. Superiority in speech does not mean number of words, nor even solely precision of application, but precision of application to new relations of things, that is, in effect superior speech is accurate speech on complex<sup>1</sup> matters. We do not find that the loquacious person speaks precisely, except on the most familiar things; on novel things he fails greatly. The "faculty" of speech is not, as popularly supposed, highly developed in him. The utterances are well organised; they were prompted—to speak popularly, helped out—by their special circumstances. They are only in degree less significant than the Occasional Utterances (1), or than the Recurring Utterances (4). Besides this, the inability to repeat them is to be carefully borne in mind.

(3) I have records of still higher degrees of utterance by one speechless patient. A man, for several months under my care in the London Hospital, was absolutely speechless. He never *uttered*, much less spoke, anything but "pooh," "pooh," so far as I or the students or the nurses knew. But I was told by his friends of three utterances. Once, when he had had enough bread-and-butter, he said "No more." This, however, is only a degree of speech on a level with those in the just-given illustrations (2). But I was told that one day the patient said,

<sup>1</sup> Although of necessity we take type cases, we not only consider what we call exceptions to the type, but in actual practice we consider individual peculiarities. What is well organised in one person is not so in another; when we say that the more automatic, more organised, &c., remains, we mean what is more organised in this or that patient. The qualifications to be understood in using such expressions as "the concept," "the English language," "the environment," need not be pointed out. In such expressions as "from the special to the general," "from the complex to the simple," the obvious qualifications must be kept vividly in mind. When we speak of complexity of any actions, we do not mean any sort of abstract complexity. A man in delirium goes through very complex manipulations of his trade, but they are not complex *to him*.

with difficulty of articulation, "How is Alice [his daughter] getting on?" A third utterance was, I think, as high, if not still higher, in speech. His son wanted to know where his father's tools were. In reply to his son's questions, the patient said, "Master's." Although here is but one word, where in health there would have been a sentence, there is a proposition; it told his son where the tools were as fully as the most elaborately worded and grammatically complete sentence would have done. It was far higher than the most elaborate oaths, and higher even than such utterances as "no more," "good-bye," "very well," &c. Once more I would urge that speciality in speech ("high speech") is not simply an affair of number of words, nor simply of complexity of their arrangement. We have to consider precise adaptation to special and new circumstances: "master's" did not come out upon a common and simple occasion, like "good-bye;" it was definitely uttered to signify a very special relation, moreover a new relation. Granting, for the sake of argument, what, however, I do not know, that the man had in health replied scores of times to the same question by that word, or by a fuller proposition containing it, it was specially used for a new occasion, under, that is, very new circumstances. The father had left his work, would never return to it; was away from home; his son was on a visit, and the question was directly put to the patient. Any one who saw the abject poverty in which the poor man's family lived would admit that these tools were of immense value to them. Hence we have to consider, as regards this and the other occasional utterances, the strength of the accompanying emotional state. We shall consider the influence of strong emotions, which imply great nervous tension on the production of these utterances, later on.

I used to receive reports of these utterances and sayings by speechless patients with great incredulity, and so I find have others done. One of my most intelligent pupils, to whom I was speaking of such utterances, told me that the wife of a speechless patient, with much indignation at his (the student's) incredulity, affirmed that her husband (otherwise speechless since his attack) uttered before he died, "God bless you, my dear!" This utterance, if largely emotional, was a painfully

appropriate one from a dying man to his wife. He may have uttered it interjectionally scores of times when well, and have *said* it when dying; really *meaning* that God should bless his wife. Under some circumstances truths that have died down into truisms become alive again.

The Communist orator who began his oration by "Thank God, I am an Atheist!" used "thank God!" as a mere expletive: even when this phrase is uttered devoutly, it is often more emotional than propositional; but in some states of mind it doubtless is *said* with full propositional intent. Much poetry, in prose and verse, nowadays seems to be an attempt to show the truths of what have become uninfluential truisms.

These utterances naturally surprise the friends of speechless patients. A patient, fatally ill, unable to tell what she wanted (this patient had not entirely lost speech), surprised her sister by exclaiming, "Surely you must know what I mean?" after that she said nothing intelligible. A patient under my observation in the London Hospital could utter many words, but his oaths and other ejaculations were alone properly uttered; a patient in the next bed felt insulted on being asked to note what the patient uttered. Naturally he would feel that a man who, when asked to write, ejaculated, "What's all this bloody nonsense about?" could talk if he liked.<sup>1</sup>

Gairdner had an aphasic under his care in hospital, and wishing to learn something as to the patient's general condition, asked another man in the ward what *he* thought of him. "I think a guid whuppin wad be the cure of him." On Gairdner remarking that the patient could not speak, the man replied, "Na, but he swears whiles;" evidently believing that the poor

<sup>1</sup> Dow's wife told me that the neighbours were very unkind; they said it was all nonsense about his being unable to talk, for why did he not write? They could not be expected to know that if speech goes, writing goes—expression in writing is meant; Dow copied a good deal, and could sign his name without copy. Had they heard Dow utter "Damn," because his daughter came in late, they could have felt the correctness of their opinion of his case to be demonstrated. In general the laity cannot be expected to know that swearing, &c., may persist when speech proper is impossible, and certainly not that a higher kind of utterance may persist when the patient is fatally ill. No doubt many apoplectic persons found in the streets are locked up for drunkenness because the policeman does not know that swearing is a very automatic process, which can persist under conditions produced by fatal brain lesions as well as by drink.

fellow was shamming. The aphasic died, and cancer of the brain was found at the necropsy.

In some cases of speechlessness an elaborate utterance comes out of which we cannot guess the meaning. The following case is an illustration of this and also of other utterances. A patient under the care of Dr. Martin,<sup>1</sup> in St. Bartholomew's Hospital, could only utter the word "yes." The Sister of the ward (a very intelligent lady) remarked that he uttered this word when he meant "no;" moreover, she said he often nodded when he meant "no." One of the nurses told her that the patient once, in words, asked for beer; but the Sister remarked, "I don't believe this, as I was constantly with him, and never never heard him say anything." I think it very likely he did, under strong excitement (active desire), get out a proposition to that effect. It may be said that there could be no excitement about so small a matter. But it is no small matter to many hospital patients. Some will leave the hospital if they do not get beer. But the utterance I wish to draw attention to is the following. His wife said that all she ever heard him utter beyond "yes," was "Five nights, six nights, seven nights, and then five nights out of seven." What this meant she could not guess.

To resume once more. There are three exceptions to the statement that our "Speechless" man is absolutely speechless. He may have permanently the utterance of the words "yes" and "no," and the full use of them: their use as speech. On the other hand, we have noted that a patient may have only the emotional or interjectional use of them, and that when he has, more than this, the ability to reply with them, he may be unable to say them when told. And where there is the full use of them, we have to bear in mind that they are the most general of all propositions. Then he has *occasionally* some inferior speech, and as I believe this to be effected by the right half of his brain, I admit that these occasional utterances show, as do "yes" and "no," some power of speech during activity of that side. Anyhow, they show that the patient retains organisations for some words somewhere in his nervous system.

<sup>1</sup> Dr. Martin kindly allowed me to see this patient and to report it, 'Lond. Hosp. Reports,' vol. iv. p. 365.

There is no demonstration by these cases that the patient retains organisations for any other words than those he actually utters. But is it a likely thing that Trousseau's patient, who said "*merci*," when a lady picked up his handkerchief, had just that word or a few such words left? A fire occurred in the street opposite one of my wards in the London Hospital: a speechless patient of mine cried out "fire!" Is it not a grotesque supposition that this woman retained only the word "fire"? Moreover, those who say a patient tried to repeat any of his occasional utterances are tacitly admitting that the words of those utterances are revived in him; otherwise the word tried has no meaning. There is demonstration by other means that the speechless patient retains a full service of words; he understands what we say to him. At any rate, the utterances spoken about show that there is retention of some words, if only a fragment or so in each case. Some of them also show that there is not only retention of some words, but of some speech, by the right side of the brain. The division we made (vol. i. p. 319) was not that the left half of the brain serves in speech, and the right in receiving speech and in other ways, but that "nervous arrangements for words used in speech *lie chiefly* in the left half of the brain," and "that the nervous arrangements for words used in understanding speech (and in other ways) lie in the right also." It is believed that the process of verbalising and every other process is dual, but that the more automatic a process is, or becomes by repetition, the more equally and fully is it represented doubly in each half of the brain. But the utterances show too, for the most part, that the speech possible by the right side of the brain is inferior speech. In nearly all cases it was well organised automatic or "old," and nearly every utterance required a special occasion, was, to speak popularly, surprised out of the patient by a sudden accustomed stimulus. And it is to be borne in mind that the patient cannot repeat, say voluntarily, what he thus utters. So far these exceptions are exceptions proving the rule.

It has been admitted, however, that occasionally there is an utterance of high speech-value. This exception will be considered after a while.