

Clinical Assessment of the State of Consciousness During the Experience of Hallucination

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ABSTRACT

A trial was made to assess clinically the state of consciousness during hallucinations. 50 hallucinating patients were selected at random and exposed to newly formalized clinical measures using the criteria of situational set; sensory inhibition and degree of active attention. Depending on these clinical criteria; we classified the clinical grades of consciousness into 3 grades.

We reached the conclusion that the state of consciousness can be assessed clinically through assessing one of the phenomena that occur in its matrix. We found that organic and most of the schizophrenic hallucinations fall in grade I consciousness, while all the hallucinations of paranoid states as well as most of hallucinations of affective disorders fall in grade III. Lastly, hysterical hallucinations fall in grade III.

INTRODUCTION

Consciousness is an integral part of any psychological phenomenon including perception and its disturbances. The conception of consciousness as an entity is open to question from philosophical, psychological and physiological points of view. The state of consciousness, physiologically speaking, accounts for the neural substratum of a conscious

experience which results as soon as neural activity lights up in the cerebral cortex (Eccles, 1970). It must be recognized that there is intense on-going neural activity in the cortex of the awake subject in the absence of specific sensory inputs, and even in sleep there is activity (Evarts, 1961, 1962, 1964) which is enhanced during dream periods (Kleitman, 1961). Also, it must be recognized that attention is required in order to register a conscious experience, and that only a very small fraction of the complex on-going patterned response of the cerebral neurones is experienced. The remainder fades unobserved because mercifully we are spared from the booming confusion that would result if we experienced in our consciousness the totality of the cerebral patterned activity at any time (Moruzzi, 1966). From a clinical point of view, we tried in this work to assess the state of consciousness through studying one of the phenomena that occur in its matrix, that is, hallucination.

MATERIAL AND METHOD

50 patients above 10 years of age presenting with hallucinatory experience were chosen at random from Mansoura University hospital. They were hospitalized and the clinical diagnosis was assessed by more than one qualified psychiatrist. On the other hand, to assess the state of consciousness associated with the hallucinatory phenomena, we followed both a qualitative and quantitative dimension.

A. Qualitative Assessment :

This was concerned only with the early change of quality of consciousness usually following a clear cut disruption of the pre-existing state of consciousness. The main concern was the definite alteration in quality during hallucination as compared with the premorbid state of consciousness and/or the hallucination-free period during the course of the illness.

B. Quantitative Assessment :

We have divided the state of consciousness into three clinical gra-

des depending on three clinical measures, i.e. situational set, sensory inhibitions and degree of active attention. However, these measures overlap to some extent.

Grade I consciousness :

1. The situational set during the hallucinatory experience is minimally, if at all, different from the pre-existing state of consciousness.
2. The associated normal sensory stimuli are minimally, if at all, inhibited during hallucinatory experience, i.e. the patient hallucinates while he is in clear participation or communication with the environment.
3. The active attention of the patient is not affected or altered during the hallucinatory experience.

Grade II consciousness :

1. The situational set during the hallucinatory experience is moderately altered from that of the pre-existing state of consciousness.
2. There is a moderate degree of sensory inhibition.
3. There is a moderate level of active attention.

Grade III consciousness :

1. The situational set during the hallucinatory experience is definitely different from that of the pre-existing state.
2. The degree of sensory inhibition is marked, and the patient may have to be detached from the surrounding environment in order to hallucinate.
3. The active attention of the patient is greatly impaired.

RESULTS

From the table shown it was found that most of the patients hallucinate while they are in grade I consciousness (50 %) and to a lesser extent in grade III (30 %).

All cases with organic psychotic conditions and most of the schizophrenics hallucinate while they are in grade I consciousness (100 % and 90 % respectively).

On the other hand, all patients diagnosed as paranoid states and most (87.5 %) of those with manic and depressive illnesses hallucinate while they are in grade II consciousness, while hysterical patients hallucinate while they are in grade III consciousness.

TABLE I
Distribution of Clinical Grades of Consciousness.

Diagnostic category	Total		Grade I		Grade II		Grade III	
	No.	%	No.	%	No.	%	No.	%
Organic psych. cond.	6	12	6	100	0	0.0	0	0.0
Manic & Dep. illnesses	8	16	1	12.5	7	87.5	0	0.0
Schizophrenia	20	40	18	90	2	10	0	0.0
Paranoid state	6	12	0	0.0	6	100	0	0.0
Hysteria	10	20	0	0.0	0	0.0	10	100
Total	50	100	25	50	15	30	10	20

DISCUSSION

The description of the grades and dimensions of consciousness into clouding, semicoma, coma, etc., had been usually used in assessment of the degree of quantitative diminution of the level of consciousness accompanying the various disorders. However, to the psychiatrist the matter includes not only so, but also assessment of the new state of consciousness that sets in with the occurrence of various psychiatric disorders as well as its information content. As regards the state of consciousness during the hallucinatory experience, most of the descri-

ptions used were classified into hallucinations during an altered state of consciousness and hallucinations in a clear consciousness (Sedman, 1966; Small et al., 1966).

The question which motivates this piece of research was :

Is the state of consciousness in a schizophrenic patient just like that of the normal state which makes us describe it as a clear state of consciousness or is there some difference ? However, the possible answer led us to think of the new quality which occurs immediately after the clear cut change in the state of consciousness following the eruption and onset of what is called the psychotic process particularly related to what is called 'the onset of onset' (Rakhawy, 1979). So, our emphasis here has been laid upon the quantitative change following the occurrence of the new quality. Hypothetically, consciousness is a matrix (Rakhawy, 1979), and its study as an integral part of any other phenomenon seems indispensable.

All what is available in traditional approach are the phenomena that set in this matrix, such as thinking, attention, rather than the matrix itself. Mahl (1964), after using electrical stimulation of the temporal lobe, reached the conclusion that this stimulation does not directly activate memory traces in the ganglionic record. Instead it induces a state of consciousness which makes it more probable that primary-process modes of functioning including hallucinatory experiences will prevail. Horowitz (1978) also supports Mahl's hypothesis, that brain stimulations may lead to regressive alteration of the state of consciousness and regressive alteration of the organization of thought. Also, Tomkins (1962) has suggested a "recognizer function" which raises the level of conscious awareness when unconscious, automatic thought is stymied. The elevation of information to the realm of conscious experiences (such as images) can serve an adaptive function. Saul (1965) described a new reported state of consciousness as a strange and fascinating experience and added that in this experience one feels as though he has just had a dream which he is trying hard to recall but in vain.

This was a support for Forbes (1949), who coined the term "dream scintillations" for this experience. Horowitz (1978) suggested revising the term to "flickering images" since the person is not asleep but still not dreaming and hence the event could be a transient change in consciousness due to, as he stated, temporal lobe epilepsy.

All the above mentioned trials and personal experiences make us motivated towards the new approach to assess the state of consciousness through a direct clinical approach. We found that in organic psychotic conditions all patients hallucinate while they are in grade I consciousness. A result which may be interpreted on the basis that this type of hallucination is motivated by the underlying internal organic mechanism which needs no special external circumstances (special set, certain level of external stimulation or particular degree of attention). Instead, this type of hallucination intrudes into the realm of consciousness whenever the basic brain mechanisms necessary for its production are activated.

On the other hand, in affective disorders the vast majority of patients (87.5 %) hallucinate while they are in grade II consciousness. This may indicate the less need for hallucinations in affective disorders as proved from the less frequency of its presence than other psychotic disorders particularly schizophrenia (Frieske and Wilson, 1966).

In schizophrenia, 90 % of patients hallucinate while they are in grade I consciousness. This means that their hallucinations were most vivid even with the normal current events and stimuli. This result was supported by Mintz and Alpert (1972).

Also, in paranoid states all patients hallucinate while they are in grade II consciousness. This may be interpreted on the basis that the patient can directly project his wishes in an intellectual manner rather than in a perceptive way.

The last type of hallucination which is even towards what is called normal hallucination (Horowitz, 1975), was found in hysterical neurosis. Here, there must be a certain degree of sensory inhibition and a certain set, also diminution of the level of attention so as to lead to an intensification of the internal input into the image system of representation (Horowitz, 1975).

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الموجز

تقويم اكلينيكي لحالة الوعي اثناء خبرة الهلوسة

اجريت في هذا البحث محاولة لتقويم حالة الوعي — وذلك بطريقة اكلينيكية — اثناء خبرة الهلوسة ، حيث تم اختيار خمسين مريضا — يعانون من الهلوس — اختيارا عشوائيا واجريت عليهم قياسات اكلينيكية هي : حالة استعداد المريض الموقفية ، درجة الكف الحسى ، ودرجة الانتباه النشط . وقد قام الباحثان بتصنيف الدرجات الاكلينيكية للوعي الى ثلاث درجات تبعا لهذه الخواص المذكورة .

ولقد خلص الباحثان الى أن حالة الوعي يمكن تقويمها اكلينيكيًا عن طريق تقويم احدى الظواهر التي تحدث في اطارها . كذلك وجدوا أن كل الهلوس العضوية ومعظم الهلوس الفصامية تقع في درجة الوعي (١) ، على حين تقع كل الهلوس في حالات البارانونيا ومعظم الهلوس في الاضطرابات الوجدانية في الدرجة (٢) ، واخيرا تقع كل الهلوس الهستيرية في الدرجة (٣) .

ABSTRAIT

Evaluation Clinique de l'état de conscience

durant l'expérience des hallucinations

Nous avons essayé dans cette étude d'évaluer cliniquement l'état de conscience durant les hallucinations. 50 malades en état d'hallucination ont été choisis au hasard et exposés à des mesures cliniques, nouvellement formalisées, utilisant les critères de l'ensemble situationnel. Ceci comporte l'inhibition sensorielle et le degré de l'attention active.

D'après ces critères cliniques, nous avons classifié les grades cliniques de conscience en 3 grades.

Nous avons atteint la conclusion que l'état de conscience peut

être évalué cliniquement à travers l'évaluation d'un des phénomènes se produisant dans le champ de conscience.

Nous avons trouvé que les hallucinations organiques ainsi que la plupart des hallucinations schizophréniques se situe au grade I de conscience, tandis que les hallucinations des états de délire chronique ainsi que la plupart des hallucinations de troubles affectifs se situe au grade II. Finalement les hallucinations hystériques se situent au grade III.