The A.B.O. has not yet decided on its attitude to the proposed Faculty published by the C.B.O., but as a member of its negotiating committee I cannot but fear that this proposed Faculty, instead of uniting the profession and producing the desired united body, will intensify distrust and make more difficult that unity which is so essential today. The circumstances in which this Faculty has been registered, the obvious lack of consideration of detail and the haste with which it has been foisted on the profession give rise to much uneasiness.

Of the many additional objections which will be raised, three may be mentioned. (1) A Faculty is not the proper body to deal with medico-political affairs. A Faculty is generally regarded as an academic body, as witness the recent Faculties of Radiology and Homoeopathy. (2) The proposed Faculty makes no provision for part-time Ophthalmologists. The united body that is required should not only deal with Ophthalmology in all its aspects, but should cater for every section of the profession. (3) The democratic character of the proposed Faculty is in doubt. "The Council shall call an annual general meeting of the Faculty to receive and discuss its report," p. 108. Alongside this it is only fair to place a recent decision of the C.B.O., namely, "Decisions or recommendations of any mass meeting of members or associates should be considered by the Council but should not necessarily be acted upon nor implemented."

These difficulties are not insurmountable, and I do not despair of the formation of a body acceptable to all parties. To secure this, and I write to suggest that another effort be made by calling together representatives, say, four in number, from each of the three bodies, the O.G.C., the C.B.O., and the A.B.O., and that under an independent Chairman they tackle the problem afresh. Meantime the present proposals for a Faculty should be held in abeyance.

Yours faithfully,

J. N. TENNENT.

GLASGOW,
February 17, 1945.

DARK ADAPTATION IN DETECTING VITAMIN 'A' DEFICIENCY

To the Editors of The British Journal of Ophthalmology.

Dear Sirs,—I risk these comments on "Studies in dark adaptation as a means of detecting deficiency of Vitamin 'A'" published in your Journal of November, 1944, being mistakenly provocative because the matter is so obviously important to the
ophthalmologist, physician and manufacturer. Although some of
this criticism is anticipated in the paper the general effect of it is
to continue thought and conclusion along a definite direction.
The minimum form sense is taken as a reliable measure of retinal
dark adaptation. In fact is it so? the evidence makes it a doubtful
assumption. Although the minimum form sense as found with the
adaptometer is an indication of one's ability to see in the dark under
the fixed circumstances in which the test is carried out, it does not
follow that the test is a measure of retinal dark adaptation which is
only one link in the chain of events leading to the perception of
objects in the dark. The final figure which the patient gives after
30 minutes in the dark is as much determined by his judgement,
confidence, attentiveness and memory if the test is repeated as it is
by any peripheral retinal process. On no grounds other than this
complexity of factors can one explain the experience of many
clinicians than one individual may give different readings at different
sessions although there is no reason to suspect any change in the
individual's health; that the subject who sees well enough to go
about in the dark may give a poor minimum form sense return when
tested on the instrument; that he on the other hand may see
poorly in the dark when going about his tasks yet give a fairly good
minimum form sense return; and finally that a poor minimum form
sense may be obtained although there is absolutely no evidence of
disease in eye or body. This being so one cannot use this test to
determine the degree of retinal dark adaptation without expecting a
high margin of error. Indeed for the individual without obvious
eye disease it can be claimed almost as much by the psychiatrist as
a test of mental state as by the oculist to measure the retina's
ability to adapt in the dark.
It is on such sand that the authors have built, and the shifting
nature of the foundation can well explain the changing shape of the
edifice. For example the 147 workers who were keen enough to
co-operate by taking the pellets and showed a slight average
improvement of 0.073 log. units were probably the brighter
component of the group selected. Keyed up to the occasion like
students who have properly studied for their examination they
looked for success and saw it. Even so 46 showed no change and
28 deteriorated. It is not at all surprising that the 188 indifferent
(or perhaps unwilling) co-operators, who because they did not take
the pellets were used as controls, showed no great average improve-
ment. Yet nearly one third of them improved and what seems
even more significant 49 deteriorated. Why? It can well be
argued that psychological differences between and within the groups
supply the explanation for the difference between the average
improvement in the groups and the very marked variation inside
each group. Memory, judgement and eagerness although not so
measurable in international units nor so seizable as the handy pellet

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may well have been placed in the dock instead of the accused changes in the peripheral retinal process. The same type of interpretation can be applied to the differences found among the school children.

Further, conclusions are drawn regarding the vitamin 'A' condition of various groups of children and adults from the average minimum form sense found. The line of deduction may be represented as follows:

\[
\text{minimum form sense} \xrightarrow{\text{Deductions regarding}} \text{retinal dark adaptation} \xrightarrow{\text{Deductions regarding}} \text{Vitamin A condition}
\]

"x" is faulty according to the above considerations and surely "y" is an example of circular thinking. It would seem that the prerequisite for "y" is the certain proof that Vitamin A deficiency does cause a defect in retinal dark adaptation or, permitting for the moment the validity of "x," a defect in the minimum form sense. Yet as the authors rightly indicate the literature on that aspect of the subject is inconclusive. As "y" is an important practical deduction it should wait until there is conclusive evidence that a deficiency in Vitamin 'A' to the degree likely to be found in Britain causes a defect in retinal dark adaptation.

These remarks, which so far are not constructive, are not meant to imply that vitamin 'A' cannot affect the process of dark adaptation in the retina. They are merely meant to show that the approach used by the authors fails to prove it. If it is suspected that vitamin 'A' can affect the mechanism of dark adaptation in the retina surely it would be well to use a test that so far as possible measures the peripheral retinal process and is independent of the central effect of the psyche. The minimum light sense unlike the minimum form sense is a simple sensation and as such is to a great extent independent of judgement and emotional state. It can be considered for practical purposes to be a measurement of the actual retinal process involved in dark adaptation. It is a very simple test, much more easily carried out than the minimum form test and it should always be the basis for the work discussed as well as for the investigation of the triple criteria which the authors so rightly dictate in their opening remarks.

It may be that working in the special circumstances of active service I have become too engaged with the pit-falls attending the use of the minimum form sense as a test of dark adaptation. Yet in the course of examining several hundreds of soldiers with the Koch adaptometer which supplies both minimum form and light sense figures one cannot but be impressed with the frequent discrepancy between these senses; with the great variation in minimum form sense among so-called normal individuals; with the
much more powerful influence of the mental state on the form sense than on the light sense; and with the important fact that the minimum light sense is practically never outside normal limits except in established organic disease.

I regret that I have found it necessary to be critical over such painstaking investigation but the problem will remain tangled and pre-judged if surmise and peradventure continue to "drag at each remove a lengthening chain."

Yours faithfully,

I. C. Michaelson,

January 4, 1945.

Major, R.A.M.C.

OBITUARY

By the death of Thomas Harrison Butler on January 29, British Ophthalmology has lost one of its outstanding personalities. The son of a clergyman, he was born in 1871. His early education was received at Dorchester Grammar School and St. Paul's School. Proceeding to Corpus Christi College, Oxford, he obtained first class honours in Natural Sciences. His clinical course was taken at St. Bartholomew's Hospital and from there he qualified B.M. in 1895.

After holding a number of resident hospital appointments, a Radcliffe Travelling Fellowship enabled him to widen his experience by study on the Continent for several years—during which time he worked at Paris, Berlin and Vienna and other centres. Later he practised for several years in South Africa and on returning to this country he obtained his doctorate of medicine in 1902. For 4 years he was Assistant Surgeon to the British Ophthalmic Hospital at Jerusalem, where he gained valuable experience in eye diseases, which laid the foundation of his future career.

On his return to England, he commenced practice as an Ophthalmologist at Leamington and Coventry, and became Honorary Ophthalmic Surgeon to the Coventry and Warwickshire Hospital and to the Warneford Hospital, Leamington. In 1913 he was appointed a member of the honorary staff of the Birmingham and Midland Eye Hospital. Retiring from this position in 1932, he returned to assist the depleted staff when his son—who was Assistant Surgeon to the Hospital—was called to the Forces at the outbreak of war.

He wrote much and was a frequent contributor to the Medical Journals. An authority on the slit-lamp, his book: "An Illustrated Guide to the Slit-lamp," was the first printed in English on this subject. It is interesting to note that practically all the illustrations in this book were reproduced from his own drawings—for he possessed considerable skill as an artist.
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