

**Evoked Potential Manual: A Practical Guide to Clinical Applications.** 2nd revised edn. Eds E J Colon, S L Visser. Pp 358. £86.00. Kluwer: London, 1990.

Evoked potentials are electrical changes elicited from the peripheral and central nervous system by a range of different stimuli. The subject extends into many different clinical specialties, and this multi-author textbook provides a basic knowledge of the subject. There is a need to try and draw together such a diversity of techniques, but in a book of this kind it is not surprising that the clinical ophthalmologist will only find a short section relevant to the eye and visual pathway. Nevertheless the electrophysiologist will find the book to be a very useful and an excellent reference source.

N R GALLOWAY

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## OBITUARY

### HANS GOLDMANN

Hans Goldmann was born in Komotau, Bohemia on 21 November 1899 and died 19 November 1991, shortly before his ninety-second birthday. He received a classical education at the Jesuit College in his native town, which now belongs to Czechoslovakia. He studied medicine in Prague and completed his doctoral thesis in 1923. In Prague he was assistant to A Tschermak-Seysenegg, the physiologist, and later to A Elschning, one of the leading ophthalmologists and eye surgeons of his time. Those days with Tschermak provided the basis for Goldmann's future work and also for a long-lasting friendship with H Burian, who was his colleague. In 1924 he moved to Berne as assistant to A Siegrist, and in 1927 he became assistant medical director (Oberarzt). In 1930 he qualified as a university lecturer (Privatdozent), and in 1935 he succeeded A Siegrist as professor and head of the University Eye Hospital in Berne. From 1945 to 1946 he served as dean of the Medical School and in 1965 as rector magnificus of the University of Berne.

He spent sabbatical periods of varying duration at the Department of Ophthalmology, Washington University, St Louis, Missouri, at the time when B Becker led this thriving department. Many friendly relations were initiated at this time, such as those with Bob Moses, Jay Enoch, and many others. The exchange of young researchers between St Louis and Berne became an extremely fruitful habit.

After retiring in 1968 Goldmann still continued research until his eighties. Stereochronoscopy of the optic nerve head was his main contribution in this period. To visit and to talk with him was intellectually extremely rewarding, although he suffered in his last



years from many illnesses. Certainly there is no other ophthalmologist, and probably no one else in any other field, who has left such an impression on his specialty like Hans Goldmann did, and this impression still has an effect in daily practice in the western world after almost 50 years: the construction of a new slit-lamp, the Haag-Streit 360 in 1933, later the Haag-Streit slit-lamp 900, which is still the world standard, then publication of the *Basics of exact perimetry* together with the introduction of the Goldmann perimeter in 1945, which set the standard for at least 40 years in perimetry until automated perimetry became used in daily practice.

His work on biomicroscopy of the chamber angle, of the central and peripheral fundus, and of the vitreous with the gonioscopic, the three-mirror Goldmann, and the 'macula' lenses in 1949, and the introduction of the applanation tonometer in 1956 provided the essential tools for the daily work of ophthalmologists around the world. He did not invent all these gadgets from scratch, but the ones already invented, like the slit-lamp, the gonioscopic lens, or the applanation tonometer, he changed into appropriately made, handy, easily applicable instruments.

Standing out among his many experiments, observations, and inventions are his work on cataract formation and on determination of the volume of production of the aqueous, his critical evaluation of tonography, his instrument for objective determination of visual acuity, the slit-lamp fluorophotometer, the instrumentation for cell count in the anterior chamber, and finally that for stereochronoscopy of the optic nerve head.

He was a keen observer and had a sixth sense for explication of clinical entities. As early as 1952 he implicated oxygen as being responsible for retinopathy of prematurity. He was certainly, for almost half a century, one of the world's experts in glaucoma. He was not only a scientist, but also a caring and beloved doctor of his patients.

His inventions and his scientific work fascinate by their modest expense and straightforwardness. His department did not emanate from quantity, but by the amount of thinking and brilliant discussions. Hans Goldmann's lectures to the students were the highlights of the curriculum of Berne. Being the inspiring teacher, he trained the majority of department heads and professors of ophthalmology in Switzerland, such as R Witmer, A Bangertner, P Niesel, F Fankhauser, G Eisner, G Schmitt,

and also had some ophthalmic grandchildren, such as J Flammer, F Körner, and myself.

Hans Goldmann never gave a paper on the same subject twice. When, after a period of illness he could not present anything new, he refused to give the Fuchs Lecture in Vienna when he was about 70 years old. Later, he could still give the Aschoff Memorial Lecture. He received the Vogt Prize, was the first continental European to receive the Proctor medal, was awarded the Gullstrand, Gonin, Donders, and Graefe medals, and gave the Doyne, Montgomery, Arthur Bedell, and Proctor lectures.

Hans Goldmann's observations and experiments on thermal radiation and glass-blower's cataract, which led the young ophthalmologist to a 300-page-long academic battle with Alfred Vogt in *Graefe's Archives* in the 1930s, was in reality life-threatening for him, because he was a foreigner in Switzerland, and Jewish. If he had had to go back to Germany or to Czechoslovakia, his future would have become extremely doubtful, but what Swiss and world ophthalmology would have lost, if he had not received the chair in Berne, is unimaginable. Later, he became a Swiss citizen and, in his radiance, Swiss ophthalmology could flourish.

He and his gracious wife, Erna, were perfect hosts in their homes in Brissago and Berne. There, she provided a peaceful yet stimulating refuge to which he could withdraw after his daily intensive activities in the Insel-Spital. His achievements are confirmation of her own great success in accomplishing that task.

To witness Goldmann's enormous knowledge in almost every field of science from archeology to history to physics – he read Newton in the original publications – and mathematics was extremely impressive. We have lost one of the giants of science, and we are proud that he worked for ophthalmology.

BALDER P GLOOR  
ZURICH, SWITZERLAND

## NOTES

### European Society of Cataract and Refractive Surgery

The Xth Congress of the European Society of Cataract and Refractive Surgery will be held in Paris on 6–10 September 1992. Further details, Executive Office: Organisation 7, BP 77, 18 Avenue Egle, 78600 Maisons-Laffitte, France (Tel: 33 (1) 39 62 69 00. Fax: 33 (1) 39 62 28 08); or Scientific Office: Dr D Lebuissou, Congress, CMC Foch, BP 36, 92151 Suresnes Cedex, France. (Tel: 33 (1) 40 99 98 30. Fax: 33 (1) 40 99 98 49.)

### Uveitis and retinal frontiers

The Francis I Proctor Foundation for Research in Ophthalmology of the University of California School of Medicine at San Francisco presents its 3rd Annual meeting entitled 'Uveitis and Retinal Frontiers' from 10–13 September 1992 at the Carmel Valley Ranch Resort, Carmel, California. Further details: University of California, Extended Programs in Medical Education, Room LS-105, San Francisco, CA 94143-0742, USA. (Tel: (415) 476-4251.)