

DALTONIANA

NEWSLETTER

OF THE INTERNATIONAL RESEARCH GROUP ON COLOUR VISION DEFICIENCIES

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LITERATURE SURVEY

Absolute judgments of colors using natural color names, by A. CHAPANIS and Ch. OVERBEY (Johns Hopkins Univ. Baltimore, Maryland 21218), Perception and Psychophysics 9/4, 356-360, 1971.

Ten male and ten female subjects, ages ranging from 18 to 24 years, with normal color vision, were required to select from a list of 36 common color names the correct color name for each of 36 Munsell chips shown one at a time in a 1 in sq aperture of a neutral gray screen. These were illuminated by 24 fc. The appropriate set and its color names had been determined in a previous study (Chapanis, Amer. Sci. 53, 327, 1965). On the first trial with no prior training and without even having seen the set of stimuli not a single color was identified correctly by all 20 Ss. On the 10th trial every single one of the female Ss identified all 36 colors correctly while the male Ss averaged 34.6. The data suggest that a training period is necessary, however not an extensive one. Application of the results for selection and use of colors for coding purposes, and problems about validity and methodology of absolute judgment experiments in general are discussed to a degree. - Ingeborg Schmidt.

Color name as a function of surround luminance and stimulus duration, by M.H. SIEGEL and A.B. SIEGEL (Albion College, Albion Mich. 49224), Perception and Psychophysics 9/2A, 140-143, 1971.

The effects of both exposure duration and surround luminance upon color naming were studied on 3 normal subjects by using monochromatic stimuli of 28 different wavelengths and with a subtense of 3°. These were viewed ovejally through a 3 mm artificial pupil in a white surround screen. The spot was maintained at a luminance of .5 fL. Three stimulus exposure times, .02; .06 and .10 sec were

combined with 3 surround luminances, .1, .5 and 1.0 fL. Some systematic changes in color appearance did result when surround luminance interacted with stimulus duration but changes in surround luminance alone did not have any substantial influence on color position. The data do not present any clear pattern of a Bezold-Brücke shift nor do they indicate the presence of foveal tritanopia. -Ingeborg Schmidt.

On the fine structure of the luminance-time relationship. I - The range where time summation is partial, by E. RONCHI and G. NOVAKOVA (Istituto Nazionale di Ottica, Arcetri, Florence 50125, Italy), Atti Fond. G. Ronchi, 27/1, 40-54, 1972.

The luminance-time relationship is recorded at various eccentricities across the dark-adapted retina, by varying stimulus duration in small steps (5 msec), test spot size being 6'. The fine structure of the plot, in the range where time summation is partial, is such as to challenge the assumption that in this range experimental points are fitted by a single straight line with slope less than unity. This effect is investigated for stimuli of various spectral composition. Its conspicuity seems to be maximum for green light. It is tentatively ascribed to the coexistence, at a given retinal location, of receptive fields with different time constants. - Lucia Rositani Ronchi.

Literature review of human ocular absorption in the visible, by D. VAN NORREN, Institute for Perception RVC-TNO, Report No 12 F 1972-8.

All major studies on human ocular absorption (the macula not included) are gathered. From every paper important data like wavelength interval, age, and a figure of the ocular absorption curve are copied. After a discussion on the age effect, the following curve is proposed, which represents the absorption of the average 30 years old observer : wavelength (nm) 390 : density 2.16; 400 : 1.70; 410 : 1.12; 420 : 0.85; 430 : 0.67; 440 : 0.57; 450 : 0.53; 460 : 0.50; 470 : 0.48; 480 : 0.46; 490 : 0.44; 500 : 0.43; 520 : 0.40; 540 : 0.38; 560 : 0.36; 580 : 0.34; 600 : 0.33; 620 : 0.32; 640 : 0.31; 660 - 700 : 0.30. - Guy Verriest.

The influence of age on the human visual functions (L'influence de l'âge sur les fonctions visuelles de l'homme), by G. VERRIEST (Dept. Ophthal., Univ. Ghent), Bull. Acad. roy. Méd. Belg. VII, 11/8, 527-577, 1971.

After having sketched the anatomical and histological background, the author describes and precises the different known causes of the age conditioned alterations of the visual functions, particularly the modifications in retinal illumination due to the combined effect of the narrowing of the pupil and of the diminution of

transparency of the preceptorial media. There after, the author retraces the evolution from childhood to old age of the different visual functions (absolute sensitivity, dark adaptation, differential sensitivity, visual field, spectral curve of relative luminous efficiency, chromatic discrimination, visual acuity, critical flicker frequency, electroretinogram and visual performance), reporting some personal contributions and guessing if the quantitative aspect of some alterations is sufficiently explained by the known causes. Some conclusions are drawn for what concerns the lighting problems and the priority of some fields of research work. - Author.

Unilateral colour vision disturbance. A family study by E.C. DE VRIES-DE MOL and L.N. WENT (Dep. Hum. Genet., Univ. Leiden, Leiden, Netherlands), Clin. Genet. 2, 15-27, 1971.

A man with a unilateral colour vision defect is reported. The defect of his right eye can best be defined as lying between deuteranopia and extreme deuteranomaly. The left eye was unusual in that it gave a normal Rayleigh equation on the anomaloscope but abnormal readings, classical for red-green defectives, with the Ishihara test plates. Two cousins and an uncle had bilateral colour vision defects closely resembling the defect from the right eye of the proband. Various explanations were sought for the findings, but ocular pathology, abnormal sex chromosome numbers, and mosaicism with Lyonization as well as somatic back mutation all seem to be unsatisfactory as such. Three other published cases of a unilateral colour vision defect, 2 in women and 1 in a man are discussed, as is the presence of bilateral colour vision defects in 1 each of 3 presumably monozygotic female twin pairs. - Authors.

Contrast phenomena in anomalous colour vision (Kontrastphänomene bei anomalen Farbensinn), by R.G. FREY (II. Augenklinik der Universität Wien), Verkehrs-Medizin 18/10, 450-452, 1971.

After a brief historical survey relating to the introduction of the "Florkontrasttafeln", the author stresses that the so-called augmentation of contrast in defectives is a paradox, as we know that in them all thresholds for red and green are augmented. However the simultaneous contrast would be augmented (Köllner). Following Engelbrecht, it would be better to speak about false augmentation of contrast, especially in the anomalous trichromates. That phenomenon has been differently appreciated as aid in the diagnosis and in the pseudo-isochromatic charts. Although Engelbrecht tried to improve the utilisation of "Florkontrastproben", 11% of 524 defective could perceived them completely. Hager stated that 9,9% (all deuteranomalous) from 121 defectives were not recognized. The author found that the test was negative in 5,9% of 270

defective and in 8,5% of 270 normal subjects. Beneath a red sheet the "Florcontrastprobe" was not correct in 13,7% of the defectives and in all normal subjects, so that this test is not appropriated for the diagnosis of total colour blindness (Jaeger). Experiments of the author by means of pigmentary tests and in order to detect a so-called pathological contrast augmentation (Velhagen) were performed in 300 defectives and 300 normal subjects; the augmentation was stated in the half of the anomalous trichromates and in one tenth of the dichromates. The defectives, who make only a few errors in the reading of the pseudo-isochromatic plates, had also no false augmentation of contrast. - Ernst Heinsius.

Techniques, merits and limitations of basic tests for color defectiveness, by G. FISHMAN (Eye and Ear Infirmary, Univ. Ill., Chicago, Ill.) Survey Ophthalm. 15/6, 370-373, 1971.

The basic color vision tests are here listed which enable the ophthalmologist to detect color deficiency, to specify its nature and to discern if the defect is acquired or congenital with relatively little preparation. The Ishihara and AO HRR plates are recommended as screening tests. Since each test has its limitations they should be administered together for greater reliability. The Panel D-15 and 100 Hue tests are utilized in classifying protan, deutan and tritan defects. For totally color-blind subjects the Sloan achromatopsia test is a valuable aid in diagnosis. The anomaloscope offers the most reliable quantitative analysis of protan and deutan defects. Acquired defects can be evaluated from interpretation of the results on the same tests. Some basic characteristics support the distinction of acquired from congenital color vision defects. - Ingeborg Schmidt.

The X-chrom lens, by H. ZELTZER, J. Amer. Optom. Ass. 42/10, 933-937, 1971.

The X-chrom lens is a corneal contact lens used monocularly to correct red-green color deficiency. The lens transmits substantially only the orange and red range of the spectrum from about 590 nm to 700 nm and has a transmittance of approximately 14% to 40%. Filters of other colors did not yield similar results. The lens is fabricated thin enough to permit at least visual acuity of 20/40 or better. It is effectively used by anomalous trichromats, less effectively by dichromats. It allows differences of shade to be perceived in spectral areas of confusion. Colors have the appearance of becoming more "alive". After a rapid learning process, proper identification of colors is achieved. Binocular use of the lens is ineffective. It can be used in either eye but it seems that on the non-dominant eye it is less annoying. A description of the fitting technique is given. The lens is generally worn a few hours each day but not

always daily depending on the purpose for correcting color deficiency. The author claims that the lens does not interfere with binocular vision. - Ingeborg Schmidt.

Comments on the X-Chrom Lens, by I. SCHMIDT, J. Amer. Optom. Ass. 43/2, 199-201, 1972.

After reviewing the literature concerning successful attempts to improve color identification in red-green color deficient with the use of colored filters, the effects of Zeltzer's X-chrom lens on binocular vision are analyzed. Among other effects, that of ensuing lustre when viewing areas of short wavelengths emission is considered. When observing apparently or actually moving objects one should expect phenomena corresponding to the Pulfrich effect; namely distortion in depth, size, and velocity and even nausea (Strickland, Ward and Allen, Rep. 6th Ann. Conference on Motorists Vision and Highway Safety AOA, Chicago, Oct. 22, 1965). This could be expected since the situation would correspond to that of wearing a neutral density filter in front of one eye. - Understandably the world appears more "alive" to the color deficient when using the filter. Unfortunately a report proving that the lens enables the color deficient to identify colors correctly and introduces no new mistakes is missing. In view of driver safety, further evidence is also needed in support of the authors claim that the lens does not interfere with binocular vision. Finally, since patients wear the X-chrom lens for only a few hours per day, and not necessarily on a daily basis, it is not evident why it should be prescribed in the form of a contact lens.

Reply of Harry I. Zeltzer. In his reply to the comment by Ingeborg Schmidt the author points out further advantages of the X-chrom contact lens. Among those are that the lens can be made of different thicknesses and different spectral transmissions within the range of 590 nm to 700 nm to suit different refractions and sensitivities. The benefit one person had from the use of the lens is described in detail although his color deficiency is not specified. His vision was said to be partially alternating depending on which eye gave him "better color". Dr. Zeltzer points out that through a learning process colors can be properly identified. When using the lens the subjects mentioned in the original paper identified all Ishihara plates correctly and demonstrated 100% stereopsis using the Keystone series. The possibility of introducing a Pulfrich effect was not discussed. - Ingeborg Schmidt.

Evaluation of the different tests for establishing disturbances of colour perception by J. KOLIOPOULOS, G. PALIMERIS and D. ANDREANOS (University Eye Clinic Athens, 135, Greece), Bull. hellenic ophthal. Soc. 38, 29, 312, 1970.

The purpose of this study was to give to the Greek ophthalmologists information for establishing disturbances of colour vision, in eye clinics and private offices with use only of Ishihara charts and AO-HRR charts, if anomaloscope is not available. Each of the pseudoisochromatic charts of Ishihara and of the AO HRR plates were evaluated both with regard to person with normal and to 47 persons with abnormal colour perception. On the strength of this analysis the authors selected 4 charts among the Ishihara ones (viz N° 9, 10, 15, 22 edition 1960) and 4 plates of the AO HRR (viz 3, 4, 12, 16 2nd edition 1957) which they consider as best suited. Their work is mainly in accordance with the results of Verriest (Arch. Mal. Prof. Méd. Trav. Séc. 29, 293-314, 1968) and others. - John Koliopoulos.

Incidence of colour vision defects in screening 29.985 young Greeks, P. IORDANIDES and J. KOLIOPOULOS (University Eye Clinic Athens, Greece) Iatrika Chronika (Athens) 11/105, 561-574, 1971.

After a brief analysis of the congenital colour vision deficiencies, the results of screening 29.985 young Greek employees are discussed. The initial examination, the screening one, was performed by the pseudoisochromatic plates of Ishihara and in some cases for more specific diagnosis other methods were applied.

The examination of 21.231 young males revealed 212 (0,99%) protanopes, 241 deuteranopes (1,14%), 254 (1,20%) protanomalous, 978 (4,61%) deuteranomalous and 2 with monochromatic vision. In total 1.678 males (7,94%) had a colour vision disturbance.

The examination of 8.754 young females revealed 1 (0,01%) protanope, 2 (0,02%) deuteranope, 3 (0,03%) protanomalous and 31 (0,35%) deuteranomalous; no case of monochromatic vision in females was detected. In total only 37 (0,42%) females had a detectable colour vision disturbance with the applied screening method. These results are discussed in comparison with available bibliographic data. - John Koliopoulos.

Clinical and pathological aspects of choroidal ischaemia, by W.S. FOULDS and W.R. LEE (University of Glasgow) and W.O.G. TAYLOR (Ayr), Trans. ophthal. Soc. U.K. 91, 323-341, 12 figs, 21 refs.

Three patients with focal and three with more generalised acute failure of choroidal circulation were investigated: the evidence pointed to damage primarily to the receptor cells of the retina, as shown by the 100-hue test and in one case histological investigation. Other investigations included fluorescein angiography, electro-oculography, dynamic and static perimetry as well as temporal artery biopsy.

In view of these findings a retrospective study of 22 cases of ischaemic optic atrophy was carried out to see if their visual loss might have been due to retinal rather

than optic nerve damage; 100-hue tests, which had been carried out in ten cases suggested that this supposition may well frequently be true. - W.O.G. Taylor.

Defects of colour vision after unilateral cortical lesions (Troubles de la vision des couleurs après lésions corticales unilatérales), by A. TZAVARAS, H. HECAEN and H. LE BRAS, Rev. Neurol. (Paris), 124/5, 396-402, 1971.

Eighty nine right-handed patients with unilateral cortical lesions (51 left-sided and 38 right-sided) and 60 controls were given a battery of tests comprising verbal and non-verbal tests, the Farnsworth D-15 and a test which consists of colouring drawings of familiar objects.

A first global statistical analysis of the results of the colouring test shows no significant differences between the two groups of patients with hemispheric (right and left) lesions.

But when we compare the group with right-sided lesions and the group with left-sided lesions without aphasia with the one with left-sided lesions with aphasia, the difference of the scores of the colouring test is highly significant ($F = 15,4$. S). We discussed these results according to the laterality of the lesion and the cluster of deficits.

On the left, the deficits in the verbal and non-verbal tests concerning colours were frequently but not constantly associated.

On the right, they appeared rather isolated, but related to a parietal localisation.

The fact that the deficits are significantly related to aphasia in the group with left side lesions may indicate a linguistic functional dependance as well as an effect of anatomical proximity. - A. Tzavaras.

The defects of perception, denomination and handling of colours after cortical lesions (Les troubles de la perception, de la dénomination et du maniement des couleurs après lésions corticales), by A. TZAVARAS and M.C. GOLD-BLUM, Langages, 7/25, 95-107, 1972.

Following the ambiguous results obtained by tests measuring various aptitudes concerning the perception and handling of colours by subjects with unilateral cortical lesions, a critical review of the relevant physiological, linguistic and neuropsychological literature has been undertaken.

This has permitted us to consider the existence of a relative independence between the system of colour vision and the linguistic system which integrates and utilises this chromatic information.

With these considerations, one can conceive the presence of discriminative difficulties after lesions of the right hemisphere whereas one can conceive that the treatment of chromatic information in more complex tasks takes

the form of a continuum going from language to colour perception.

Such an hypothesis would be in accordance with the variability of clinical troubles found in left-sided cortical lesions cases. - A. Tzavaras.

LISTS OF THE PUBLICATIONS ON COLOUR VISION
DEFICIENCIES OF MEMBERS OF THE RESEARCH GROUP

13. Papers of Dr. Egill HANSEN (The University Eye Clinic, Rikshospitalet, Oslo 1, Norway).

R HANSEN E. - Factors causing uncertainty when conducting colour discrimination tests. An evaluation of the Ishihara, Boström-Kugelberg and Stilling tests on a basis of anomaloscope examinations, An. Inst. Barraquer 4, 250-292, 1963.

14. Papers of Prof. Ernst HEINSIUS (Allgemeines Krankenhaus Heidberg, Rathenaustr. 35, 2 Hamburg 39, D.B.R.).

HEINSIUS E. - Kritisches zur Farbensinnprüfung bei der Musterung und anderen Reihenuntersuchungen, Militärarzt, 1938.

HEINSIUS E. - Die "einfache unkomplizierte" Form der angeborenen totalen Farbenblindheit, Klin. Mbl. Augenheilk. 101, 1938.

HEINSIUS E. - Kurze Wertung der Untersuchungsergebnisse mit den neuen Stilling-Hertel'schen Farbenproben zur Prüfung des Farbensinnes, Militärarzt, H. 11, 1939.

HEINSIUS E. - Reihenuntersuchungen des Farbensinnes mit der 20. Auflage der Stilling-Hertel'schen Tafeln, Dtsch. med. Wochenschr. 51, 1939.

HEINSIUS E. - Goethe's Farbenlehre in ihrer Bedeutung für die Sinnes-Physiologie, Med. Welt, Nr. 1, 1940.

HEINSIUS E. - Die verschiedenen Arten der Farbensinnstörung und ihre Prüfung bei der Kriegsmarine, Med. Welt, 1941.

HEINSIUS E. - Die Farbensinnprüfung bei der Kriegsmarine, Graefe's Arch. Ophthal. 144, 1941.

- Zur Frage der Zuverlässigkeit der Farbensinnprüfungen mit Pigmentproben, Klin. Mbl. Augenheilk.,

- Was ist bei der Farbensinnprüfung mit den neuen Tafeln zu beachten, Arztl. Dienst DB, Heft 3,

- Die praktische Bedeutung der Pigmentproben, Arztl. Dienst DB, Heft 3, 1951.

- Über die verschiedenen Formen der Trichromatentüchtigkeit und über die Grenze zwischen Farbensinnentüchtigkeit, Klin. Mbl. Augenheilk., 135, 95, 1959.

- Über die Feststellung herabgesetzter Unterdrückbarkeit bei der Prüfung des Farbensinns, Arztl. Dienst DB, 653, 1961.

- Zur Farbensinnprüfung mit pseudoisochromatischen Tafeln bei Kunstlicht, Arztl. Dienst DB, 26,

- Erfahrungen mit den neuen Farbensinnprüftafeln (6. Bahnamtliche Auflage und 22. Auflage der Eisenbahntafeln), Arztl. Dienst DB, 28, 17 1967.

WESSELS & HAUCK, Die Beeinflussung des Farbensinns durch den Betriebslärm von Schienentriebfahrzeugen, Arztl. Dienst DB, 28, 161, 1967.

- Untersuchungen mit der 22. Auflage der Eisenbahntafeln, Klin. Mbl. Augenheilk., 151,

- Beginn der Netzhautdegeneration mit Ausfall des Farbensinns und zentrale Sehschärfe, Arztl. Dienst DB, 29, 61, 1968.

- Zur Farberkennung bei der Farbensinnprüfung der Farbenuntüchtigen und ihre Bedeutung für die Diagnostik der Farbensinnstörungen, Arztl. Dienst DB, 30, 148,

- Die angeborenen Farbensinnstörungen und ihre Bedeutung für die verschiedenen Laufbahnen der Eisenbahn, Zentrabl. f. Verkehrs-Med., Psychologie und angrenzende Gebiete, p. 10-19,

PREPRINTS OF SUMMARIES OF PAPERS WAITING PUBLICATION

Abstract of Work on Colour Blindness from Sub Saharian Africa, by P.V. TOBIAS. To be published in Trans. Roy. Soc. S. Africa (1972).

There is remarkable homogeneity in the incidence of red-green colour-blindness throughout sub-Saharan Africa (Roberts 1967 : 7-13). The frequencies of all available series range from about 1.6 per cent to 4.6 per cent. (Tobias unpublished data and 1966 pp. 173-174; Roberts op. cit. pp. 9-10). Relatively few series have been examined in Southern Africa. Results available are 2.95 per cent in 407 Tswana in Botswana (Squires 1942), 2.8 per cent in 250 adults and 4.6 per cent in 285 children of the Valley Tonga of Zambia (Tobias 1966 p. 174), 3.7 per cent in 80 Plateau Tonga of Zambia (Tobias op. cit. p. 174), 2.7 per cent in 75 male Bushmen of Botswana (Tobias op. cit. p. 120), 1.0 per cent in "nearly 200" Bushmen males (Jenkins and Brain 1967; p. 19), and 1 individual out of 19 Hottentots tested (Jenkins and Brain op. cit. p. 19).

Data for other parts of sub-Saharan Africa range from 1.59 to 2.46 per cent (Roberts op. cit. p. 9).

In all, Africans have a low frequency of colour-blindness, comparable with the low values of indigenes in Australia, Brazil and Fiji and of North American Indians (Post 1962 pp. 131-146). From this distribution, Post has suggested that colour blindness was a disadvantage in hunting communities and those with "Simple or primitive cultures"; in those who have had pastoral-agricultural economies and settled habitats for at least three millennia, there would seem to have been a relaxation of selection pressures. Thus, he suggests that the incidence of alleles for red colour deficiencies may have increased in European populations from 0.5 to 2.0 per cent during 120 generations, and for green colour defects, from 1.5 to 6.0 per cent. Attractive as this hypothesis is, Adam et al. (1967 pp. 297-306) have drawn attention to the great variations that exist even within some of the populations farthest removed from the primitive habitat - for example, the frequency of colour blindness is twice as high among Europeans as among Japanese. Furthermore, we are ignorant of the extent of the selection of pressures on the various alleles governing colour vision. Post's hypothesis certainly deserves further exploration : it is at least worthy of note that among the hunter-gatherer Bushmen of Southern Africa, the frequency of colour blindness when Jenkins' and Tobias' series are considered together is lower than among the Southern African Negro populations tested.

REFERENCES.

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JENKINS T. and BRAIN C.K. - The peoples of the lower Kuiseb Valle, South West Africa, Scient. Pap. Namib Desert Res. Stn. No 35, 1-24, 1967.

POST R.H. - Population differences in red and green colour vision deficiency : A review and a query on selection relaxation, Eugenics Quarterly 9 131-146, 1962.

ROBERTS D.F. - Red/green colour blindness in the Niger Delta, Eugenics Quarterly 14, 7-13, 1967.

TOBIAS P.V. - The peoples of Africa South of the Sahara The Biology of Human Adaptability. (Edited by Paul T. Baker and J.S. Weiner), Carendon Press, Oxford, 111-200, 1966.

SQUIRES B.T. - Colour vision and colour discrimination amongst the Bechuana, Trans. Royal. Soc. S. Africa, 29, 29-34, 1942.

(By courtesy of Maurice H. Luntz).

OFFICIAL COLOUR VISION REQUIREMENTS

GERMAN FEDERAL REPUBLIC (1972)

	Colour vision requirements	Tests
Private car driving	No limitations	
Lorries, taxis, busses	Deutans, tritans and protans with $Q > 0.5$ accepted	Two specified pigmentary tests + anomaloscope
Railways cat.A	Normal	Three specified pigmentary tests + anomaloscope
cat.B	Normal	Stilling + Nagel-Vierling (+ anomaloscope in doubtful cases)
Tramways, subways	Normal	Two specified pigmentary tests (+ anomaloscope in doubtful cases)
Aviation profess. private	Normal Anomalous trichrom. exceptionn. allowed	Pigm. tests + anomaloscope Pigm. tests (+ eventually anomaloscope)
Marine (deck)	Normal	Two specif. pigm. tests (e.g. Stilling-Velhagen, Ishihara or Boström) + anom. in doubtf. cases
Army (aviation)	Normal	Stilling (or Ishihara) + anomaloscope
Postage (some cat.)	Strong defects excluded	Pigm. tests (+ anomaloscope in doubtful cases)

E. Heinsius

HUNGARY (1972)

(Civil purposes)

	Colour vision requirements	Tests
Private car driving	Protanopes and achromats excluded	Stilling (or Rabkin, or Ishihara) + (if the testee makes a mistake) Nagel anomaloscope
Lorries, taxis, busses	Normal	Same tests
Railways (traffic) and aviation	Normal	Stilling (or Rabkin, or Ishihara) + Nagel anomaloscope (always!)

Mailath.

CORRESPONDANCE

Relative to the discussion on the effect of coloured contact lenses, Dr. Jay M. Enoch may be interested in a rather old paper I contributed to the subject, namely : Characteristics of Tinted Contact Lenses, by G.V. BALL, Brit. J. physiol. Opt. 21/4, 219-223, 1964 - G.V. Ball.

COMMUNICATION

I received a check of 5 U.S. dollars from the Mitsubishi Bank Ltd (Tokyo) without mention of the name of the member who paid so his fee. This member is asked to let me know his identity. In this connection I remember that all members from the non socialist countries must pay their fee to our treasurer, Prof. R. Lakowski, as indicated in Daltoniana, nr. 1, p. 9 - G. Verriest.

Of course, it is before 31th July 1972 (and not before 31 July 1973, as indicated erroneously on the form to be returned) that all members of the Research Group were individually and urgently required (in Daltoniana, nr. 3) to let me know by means of this form if they intend to participate and to present a paper at our next symposium in Edinburgh. -
G. Verriest.