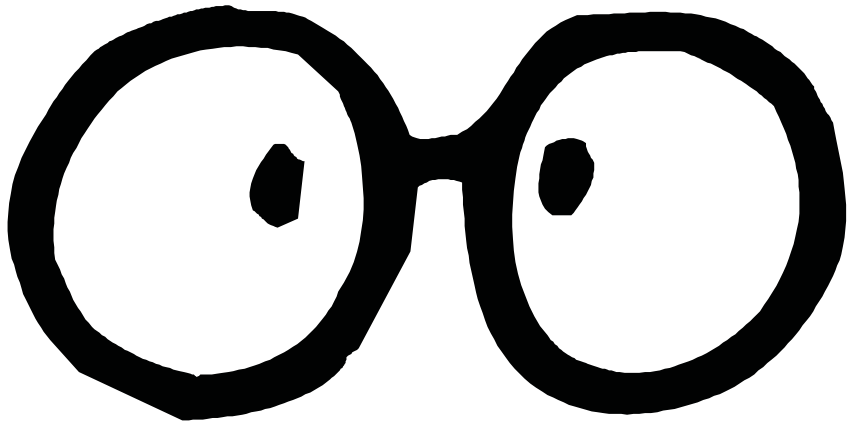


VISION

*Bulletin of the
Applied Vision
Association*



Geoffrey J. Burton award report
AVA Natural Images: Call for papers
BCOVS meeting announcement
References on Vision

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*AIM OF THE AVA: TO PROMOTE AND ADVANCE THE APPLICATION
 OF RESEARCH WORK IN ALL AREAS RELATED TO VISION*



Noticeboard



AVA on the Internet

The Applied Vision Association now has its own world wide web pages at:
<http://www.dmu.ac.uk/ava/>

The pages contain details of who is on the committee, contact emails, latest details on forthcoming AVA meetings and links to other vision related pages. There are also archives of abstracts from previous AVA meetings.

There is also an AVA anonymous ftp site at: *<ftp://hc.les.dmu.ac.uk>*

This site contains:

- a hyperspectral data set of natural scenes produced by Gavin Brelstaff (see <http://www.crs4.it/~gjb/ftpJOSA.html>).
- David Foster's bootstrap program for estimating the accuracy of a statistical estimate derived from a set of experimental data (see <http://www.vs.aston.ac.uk/Research/bootstrap.html>).

If there is anything else you think this archive should contain then let us know.

AVA and OPO Subscriptions

Membership for 1998/1999 will be as follows: ordinary members £18, student members £9. Those members who pay by standing order for the AVA and Ophthalmic and Physiological Optics please check that the correct amount is being paid to the AVA.

Editorial

This issue of the Bulletin contains a report from Douglas Barrett who received the 1999 Geoffrey J. Burton award. The bulletin also contains details of the forthcoming AVA Natural Images meeting to be held at Bristol University and the BCOVS meeting in Glasgow which has AVA involvement. If you have any comments on the Bulletin of the AVA then do contact me: mscase@dmu.ac.uk

Deadline for copy for the next Bulletin - 16th August 1999

Geoffrey J. Burton Memorial Fund

The fund was established in 1986 with the aim of providing financial assistance to students (postgraduates studying for a higher degree or first-year postdoctoral junior scientists) based in the UK travelling to any conferences or meetings at which they will be presenting a paper or poster. Donations to the fund can be directed to the AVA secretariat and cheques etc. should be made payable to "The Geoffrey J. Burton Memorial Fund".

The maximum award to any one individual is £400.

The AVA Committee has decided that from now on there will be a single award made once a year. The closing date for awards will be the last day in February each year and will be for conferences held from 1st March to the end of the following February (i.e. there will not be retrospective awards). Applicants do not have to be presenting at an AVA conference.

The next closing date for applications is:

29th February 2000

for conferences held between 1st March 2000 and 28th February 2001.

To apply for an award you need to complete an application form which is available from:

The AVA Secretariat,
College of Optometrists,
42 Craven Street,
London,
WC2N 5NG.

A PDF format version of the application form is available on the AVA web site at:

<http://www.dmu.ac.uk/ava/>

Geoffrey J. Burton Memorial Fund

Douglas Barrett from the Department of Psychology, University of Surrey received the 1999 award. One of the conditions of the award is that the recipient should write a brief report of the conference attended. Here is his report of the ARVO.

Report of ARVO meeting, Ft Lauderdale, USA, May 1999.

Having been awarded the Geoffrey J Burton travel bursary, I was lucky enough to attend both the Association for Research in Vision and Ophthalmology Annual Meeting and the 3rd Annual Vision Research Conference in Fort Lauderdale this May. Both meetings proved excellent with paper sessions on visual development, attention and numerous sessions on visual search being of particular interest to me. A great number of the poster presentations also proved to be very informative, providing an opportunity to discuss and listen to a number of people from labs throughout the world about their work and ideas.

My own poster, "Photopic and scotopic performance of dyslexics and normals on stereo and motion tasks," was well attended and provoked a good deal of interest. Designed to examine whether visual deficits among dyslexics are attributable to a general magnocellular deficit (*Stein & Walsh, 1997*), the results suggested that motion perception deficits among this group are due to the inefficient integration of perceptual information conveyed by both magnocellular and parvocellular pathways within certain cortical areas. Throughout the session, I received much useful feedback from a number of people, notably Melvyn Goodale, who was very positive about both our method and conclusions. Others suggested a number of interesting possibilities for further research which was also very useful.

As a first year PhD student, I found both conferences and the trip to Fort Lauderdale very enjoyable and rewarding. The opportunity to meet and informally discuss my own and the work of others was invaluable and I have come away from America with a great deal of enthusiasm and enough new ideas to keep me busy for at least the rest of my PhD!

Doug Barrett, University of Surrey.

Abstract of ARVO presentation

PHOTOPIC AND SCOTOPIC PERFORMANCE OF DYSLEXICS AND NORMALS ON STEREO AND MOTION TASKS.

((D.J.K. Barrett, M.F. Bradshaw, P.B. Hibbard & J. Everatt)) Psychology Department, University of Surrey, Guildford, U.K.

Purpose. At least two anatomically distinct pathways project from the retina to the cortex; the parvocellular and magnocellular. It is thought that dyslexics may have a deficit in the M-pathway (Stein & Walsh, 1997) which could account for their impaired performance on certain psychophysical tasks (Everatt et al, 1998). However, the deficit may also arise from inappropriate interactions between the two pathways. To distinguish between these hypothesis, we compared the performance of normals and dyslexics on three visual tasks related to M and P function in photopic and scotopic conditions. The latter having been shown to diminish the operation of the P pathway (Purpural et al, 1988). **Method.** Thresholds for dyslexics (N15) and controls (N15) were determined using a TUD staircase procedure in three tasks: (*I*) coherent motion (SNR), (*ii*) disparity threshold (corrugation phase detection) and (*iii*) biological motion (SNR). The stimuli comprised bright dots (13 cd/m²) or dim dots (0.05 cd/m²) in the photopic and scotopic conditions respectively, on a dark background (0.01 cd/m²). Before commencing the scotopic trials, subjects dark-adapted for 30mins. **Results.** Disparity and biological motion thresholds did not differ significantly between the groups although both groups performed worse under scotopic conditions ($p < 0.01$). Thresholds for coherent motion detection was 20% and 32% for controls and dyslexics respectively in photopic conditions whereas in scotopic conditions this difference was not observed. **Conclusions.** Our results suggest that when interpreting the performance of dyslexic and normal observers in psychophysical tasks the interaction of both M and P pathways must be considered.

**15th September 1999
Natural Images Meeting,
University of Bristol**

Call for papers:

We invite contributions to the Second AVA Meeting on Natural Images, to be held in the Dept of Experimental Psychology, University of Bristol, on Wed 15 Sept 1999. The meeting will run 10 AM - 6 PM.

Any aspect of work on natural images is welcome. This includes psychophysical and physiological studies of responses to natural scenes; computational analysis of such scenes; zoological and ecological studies; and issues of "realism" in computer graphics.

There will be an invited speaker, to be announced.

Registration: £20 AVA member, £25 non-member

Abstracts (200-250 words) should be submitted before 13 August 1999

Further information and submissions:

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tel: 0117 928 8565

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British Congress on Optometry and Vision Science (BCOVS), Glasgow

In 1999 the congress will be held from 6th-8th September in Glasgow, hosted by Vision Sciences in Glasgow Caledonian University. Please note that the deadline for abstracts is 1st July (*editor's note: I have been informed that late abstracts might be accepted*).

The plenary lecturers for this years meeting are: Professor Semir Zeki (UCL), Dr Chris Harris (Gt. Ormond St), Dr John Wann (Reading) and Dr John Lawrenson (City).

Members of the College of Optometrists should note that we have applied for CE credit for the meeting. BCOVS are also pleased to announce that thanks to the generous support of the Applied Vision Association, AVA members are entitled to a reduction of £5 in the registration fee.

Advance Registration £35, On Site Registration £40, Student £20

Abstracts will be published in Ophthalmic & Physiological Optics (eg see Ophth. Physiol. Opt. 17:540-543) and should be no more than 250 words in length.

BCOVS5, Vision Sciences,
Glasgow Caledonian University,
Cowcaddens Road,
Glasgow G4 0BA

Email: P.C.Knox@gcal.ac.uk
<http://fhis.gcal.ac.uk/VS/BCOVS/home.htm>

21st December 1999
AVA Christmas Meeting,
Aston University

For more information contact:
Tim Meese
t.s.meese@aston.ac.uk

AVA books for sale

The AVA still has a number of new books for sale from conferences that it has organised over the years.

Payment can be by cheque or postal order in UK pounds (sorry, no credit cards) to "Applied Vision Association". Send your payment with the order to:

AVA Secretariat,
Applied Vision Association,
College of Optometrists,
42 Craven Street,
London WC2N 5NG.

Books available:

The cost for each book is £15 (including postage in the UK) for AVA members or £20 for non-AVA members. If you are outside the UK then add £5 per book to each of the prices above.

Gale, A.S., Astley, S.M., Dance, D.R. and Cairns, A.Y. (1994) **Digital Mammography**. Elsevier (424 pages).

Gale, A.S., Brown, I.D., Haslegrave, C.M., Krusysse, H.W. and Taylor, S.P. (1993) **Vision in Vehicles IV**. North Holland (355 pages).

Brogan, D., Gale, A. and Carr, K. (1993) **Visual Search 2**. Taylor and Francis (477 pages).

The cost of the Dalton conference book is £43 (including postage in the UK) for AVA members or £48 for non-AVA members. If you are outside the UK then add £5 per book.

Dickinson, C., Murray, I. and Carden, D. (1996) **John Dalton's Colour Vision Legacy**. Taylor and Francis (784 pages).



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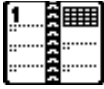
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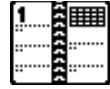
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References supplied (as usual!) by:

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Meetings Calendar



1999

- July 23-27 International Colour Vision Society 15th Meeting
Götting, Germany
<http://www.mpibpc.gwdg.de/abteilungen/141/ICVS99/>
Email: blee@gwdg.de
- August 10-14 23rd Pupil Colloquium, Nottingham
<http://www.mailbase.ac.uk/lists/pupil/files/>
- August 22-26 ECVP99, Trieste, Italy
Email: ecvp99@psicoserver.univ.trieste.it
<http://psicoserver.univ.trieste.it/ecvp99.html>
- August 22-25 Vision in Vehicles 8, Boston, MA, USA
Email: S.Rivington@derby.ac.uk
<http://ibs.derby.ac.uk/viv8>
- September 6-8 British Congress on Optometry and Vision Science
Glasgow (BCOVS)
Email: P.C.Knox@gcal.ac.uk
<http://fhis.gcal.ac.uk/VS/BCOVS/home.htm>
Abstract deadline 1st July 1999
- September 13-16 British Machine Vision Conference, Nottingham
Email: Tony.Pridmore@nottingham.ac.uk
<http://www.nott.ac.uk/meom/bmvc99.html>
- September 15 AVA Natual Images meeting, Bristol
Email: I_Moorhead@dera.gov.uk
- December 21 AVA Christmas meeting, Aston
Email: t.s.meese@aston.ac.uk

2000

- March 15 AVA 2000 Annual meeting and AGM, London
Email: ndebrunner@college-optometrists.org