Curriculum Vitae

Patrick CAVANAGH

November 2018

Personal Data

Date of Birth:	June 10, 1947
Place of Birth:	Oakville, Ontario, Canada
Citizenship:	Canadian, US Resident Alien

Appointments:

Senior Research Fellow and Adjunct Professor
Department of Psychology
Glendon College
Toronto, ON M4N 3M6
Canada

Research Professor
Department of Psychological and Brain Research
Dartmouth College
Hanover, NH 03755
USA

Emeritus Professor
Laboratoire Psychologie de la Perception
Université Paris Descartes
45 rue des Saints Pères
75006 Paris
France

Emeritus Professor
Vision Sciences Laboratory
Harvard University
Cambridge, MA 02138
USA

Education

1963 -1968	McGill University	B. Eng.	in Electrical Engineering
1968 -1970	Carnegie-Mellon University	M.Sc.	in Psychology
1970 -1972	Carnegie-Mellon University	Ph.D.	in Psychology

Positions Held

2017 - present	Senior Research Fellow	Glendon College, York University
2018 - present	Research Professor	Dartmouth College
2015 - 2018	Distinguished Research Professor	Dartmouth College
2015 - present	Emeritus Professor	Université Paris Descartes
2013 - present	Emeritus Professor	Harvard University
2011 - 2015	Research Professor	Dartmouth College
2008 - 2013	Research Professor	Harvard University
2006 - 2015	Professor	Université Paris Descartes
1989 - 2008	Professor	Harvard University
1984 - 1989	Professor	Université de Montréal
1979 - 1984	Associate Professor	Université de Montréal
1974 - 1979	NSERC Research Fellow	Université de Montréal
1972 - 1974	Research Fellow	Université de Montréal

Starting in 1972 at the Université de Montréal, I worked on memory and vision research and created a Laboratory of Perception. In 1990, with Dr. Ken Nakayama, I founded and co-directed the Vision Sciences Laboratory at Harvard University. In 2006, I accepted a position at the University Paris Descartes and created the Centre of Attention & Vision (CAV) to focus on attention research for which we won a Chaire d'Excellence and an ERC Advanced Grant. I am currently a Research Professor (half time) at Dartmouth College and a Senior Research Fellow at Glendon College of York University.

Supervision of Students

Engineering	1 M. Sc. awarded
Psychology	13 M. Sc. Awarded
	28 Ph. D. awarded, 1 students at present
Postdoctoral	36 Postdoctoral fellows

I have trained 29 doctoral students (1 currently) and 36 postdoctoral students. They have gone on become professors at research universities around the world (Berkeley, Brown, Yale, Vanderbilt, Dartmouth, Tokyo, Sydney, Aberdeen, Utrecht, UCSD). My students have won the Young Investigators Award from the Vision Sciences Society (David Whitney, 2008; George Alvarez, 2010) and the Young Investigator Award from the Society for Experimental Psychologists (George Alvarez, 2012) and the APA Early Career Award (George Alvarez, 2014). In Paris, five members of our Centre have received awards: Floris van Vugt, a masters student received a Fulbright scholarship to pursue a PhD at UCLA, Dr. Martin Rolfs received a Marie Curie postdoctoral fellowship to continue attention research at NYU with Marisa Carrasco, Dr. Tomas Knapen won the Dutch Veni Award to continue fMRI studies of

remapping in Amsterdam with Victor Lamme, and Dr. John Greenwood received a Marie-Curie Postdoctoral fellowship to work here in our lab. At Harvard, our NIH postdoc Dr. Viola Störmer won a Marie-Curie Fellowship to continue her work at Harvard followed by a year in Paris.

University Level Committees

Rhodes Scholarship Committee, UdeM, 1988-89
Science Core Subcommittee, Harvard, 1992-97
Standing Committee on Neurosciences, Harvard, 1992-97
Committee on the Use of Human Subjects, Harvard, 2002-2007
Comité de Sélection, Université Paris Descartes, 2009
Conseil Pédagogique, Université Paris Descartes, 2009-2015
Conseil de l'Ecole Doctorale 216 CH3, Université Paris Descartes, 2011-2014

Membership in Professional Organizations

Association for Research in Vision and Ophthalmology, 1977-2001
Chair, Program Planning Committee, 1990-1993
Association for Psychological Science
American Physiological Society
Fellow, Psychonomic Society
Society for Neuroscience
Optical Society of America, 1985-1995
Chair Vision Technical Group, 1989-91
Vision Sciences Society

Journal Editorship

Associate Editor, *Seeing and Perceiving* (formerly *Spatial Vision)*, 1984-2012
Associate Editor, *Canadian Journal of Psychology*, 1985-1988
Editorial Board, *Perception and i-Perception*, 1995-present
Board of Editors, *Journal of Vision*, 2003-2012
Consulting Editor, *Psychological Review*, 2004-2015
Editorial Board, *Vision Research*, 2004-2007
Editorial Board, *Canadian Journal of Experimental Psychology*, 2004-2014

Grant and Prize Committees

NIH Visual Sciences B Study Section, 1991-1995
Natural Sciences and Engineering Research Council of Canada, Psychology Grant Selection Committee, 1979-82, 1987-1989
Grawemeyer Award, USA, member psychology award committee, 2006
Francqui Prize, Belgium, jury member for humanities award, 2013

Research Interests

My work on visual attention - its spatial and temporal resolution (*Nature*) and its tracking functions (*Science*) - has opened new directions in this active domain. We also discovered a distorted perception of position caused by movement (*Nature Neuroscience*)

and presented a new theory of position perception based in the cortical and subcortical areas of attention and eye movement control (*Trends in Cognitive Science*). Our work on the interactions of attention and motion began with discovery of the paradoxical slowing of movement for chromatic stimuli (*JOSA*) and then the distinction between first order and second order motion (*Spatial Vision*).

In parallel with these advances, we uncovered a motion-based compensation of the small eye movements that occur during fixation (jitter aftereffect, *Nature*). In my research on memory, I discovered a relationship between the rate of processing and memory capacity in the short term (*Psychological Review*). We repeated this approach recently for the capacity of visual short-term memory and generated a new debate on the basic units stored in visual memory (*Psychological Science*). Following an initial interest in the perception of shadows, I have discovered that errors that go unnoticed in paintings (or Photoshop manipulations) are evidence of the subset of rules that the visual system uses to interpret images (*Nature*, The Artist as Neuroscientist), opening a new line of scientific analysis of art.

Recent Grants and direct costs awarded

2017-19	Depth from shadows (with James Elder)	VISTA	$50,000
2016-20	Neural basis of attention	NSF	$6,000,000
	(collaborator with Tse, Grey, Sheinberg, Caplovitz, PIs)		
2013-17	Predictive Coding of Position	ERC	€1,988,000
2013-15	Spatial Cognition {of 1.5M€ total}	FET	€118,000
	(with Hamker, VanRullen, Medendorp, Burgess)		
2013-15	Common Map of Locations {of 650K€ total}	ORA	€180,000
	(with Collins, Deubel, Theeuwes)		
2013-15	The Position Sense	ANR	€150,000
2008-12	Attention Visuelle Humaine	ANR	€767,000
2007-12	Processing Streams in Early Vision	NEI	$1,000,000
2000-06	Processing Streams in Early Vision	NEI	$1,150,000
1997-00	Early scene analysis	AFOSR	$510,843
1997-00	Early scene analysis: Student support	AFOSR	$119,000
1995-00	Processing Streams in Early Vision	NEI	$718,000
1994-97	Early scene analysis	AFOSR	$473,989
1994-97	Early scene analysis: Student support	AFOSR	$164,216
1991-95	Processing Streams in Early Vision	NEI	$360,000
1990-93	Independence and Cooperativity in 3D Representation		AFOSR
	$500,000		

Honors

2014	Norman Anderson Annual Distinguished Lecture, UCSD
2014	Fellow, Psychonomics Society
2013	Keynote Lecture, ASSC, San Diego
2012	Honorary Doctorate, Université de Montréal
2011	Gombrich Memorial Lecture, University of Vienna
2011	Keynote Lecture, European Conference on Eye Movements, Marseille
2009	The Rank Lecture, ECVP, Regensburg
2008	The W. S. Stiles Memorial Lecture, University College London
2007	Chaire d'Excellence, ANR, France

2005 Helmholtz Lecture, University of Utrecht.
2004 Member of the Society of Experimental Psychologists
2003 The *Perception* Lecture, ECVP, Paris.
2002 Kanizsa Lecture, University of Trieste.
2001 Killam Lecture, Dalhousie University.
1998 Attneave Lecture, University of Oregon.
1996 Hebb Lecture, McGill.
1985-89 Associate, Canadian Institute for Advanced Research

Publications

Refereed articles:	229
Invited articles:	23
Book chapters:	26
Books:	1

2018

Anstis, S., & Cavanagh, P. (2018). Crowding and the furrow illusion. *i-Perception*, **9**(5). doi: 10.1177/2041669518801029

Casati, R., & Cavanagh, P. (2018). *The visual world of shadows*. Cambridge, MA: MIT Press, in press.

Cavanagh, P. (2018). Phantoms at the Holiday Inn. In James M. Brown (ed.), *Pioneer Visual Neuroscience: A Feschrift for Naomi Weisstein*. New York: Routledge, pp 33-40.

Cavanagh, P., & Anstis, S. (2018). Diamond patterns: cumulative Cornsweet effects and motion-induced brightening. *i-Perception*, **9**(4), doi:10.1177/2041669518770690

Chen, Z., Kosovicheva, A., Wolfe, B., Cavanagh, P., Gorea, A., Whitney, D. (2018). Unifying visual space across the right and left hemifields. *Psychological Science*, **29**(3), 356-369. doi: 10.1177/0956797617735534.

Edwards, G., VanRullen, R., & Cavanagh, P. (2018). Decoding trans-saccadic memory. *Journal of Neuroscience*, **38**(5), 1114-1123. doi: 10.1523/JNEUROSCI.0854-17.2017.

Eymond, C., Cavanagh, P, & Collins, T. (2018). Feature-based attention across saccades: pop-out in color search is spatiotopic. *Attention, Perception & Psychophysics*, ePub ahead of print, doi: 10.3758/s13414-018-1597-5.

Haladjan, H., Lisi, M., & Cavanagh, P. (2018). Motion and position shifts induced by the double-drift stimulus are unaffected by attentional load. *Attention, Performance, & Psychophysics*, 80(4), 884-893. doi: 10.3758/s13414-018-1492-0.

van Heusden, E., Rolfs, M., Cavanagh, P., and Hinze Hogendoorn, H. (2018). Motion extrapolation for eye movements predicts perceived motion-induced position shifts. *Journal of Neuroscience*, **38**(38):8243-8250. doi: 10.1523/JNEUROSCI.0736-18.2018.

Liu, S., Tse, P., & Cavanagh, P. (2018). Meridian interference reveals neural locus of motion-induced position shifts. *Journal of Neurophysiology*, 119(6), 2091-2099. doi: 10.1152/jn.00876.2017.

Massendari, D., Lisi, M., Collins, T., & Cavanagh, P. (2018). Memory-guided saccades show effect of perceptual illusion whereas visually-guided saccades do not. *Journal of Neurophysiology*, **119**, 62-72. doi: 10.1152/jn.00229.2017

Paeye, C., Collins, T., & Cavanagh, P., Herwig, A. (2018). Calibration of peripheral perception of shape with and without saccadic eye movements. *Attention, Perception, & Psychophysics*, **80**(3), 723-737. doi: 10.3758/s13414-017-1478-3.

Santos, P. E., Casati, R. & Cavanagh, P. (2018). Perception, cognition and reasoning about shadows. *Spatial Cognition & Computation*, **18**:2, 78-85. doi: 10.1080/13875868.2017.1377204

Visconti di Oleggio Castello, M., Taylor, M., Cavanagh, P., & Gobbini, M. I. (2018). Idiosyncratic, retinotopic bias in face identification modulated by familiarity. *eNeuro*, 5(5). doi: 10.1523/ENEURO.0054-18.2018

Published Abstracts

Hartstein, K., Cavanagh, P., & Tse, P. (2018). Path shortening in Transformational Apparent Motion. *Journal of Vision*, 18(10):303-303. doi: 10.1167/18.10.303.

Cavanagh, P., Casati, R., & Elder, J. (2018). Tight shadows shrink depth. *Journal of Vision*, 18(10):493-493. doi: 10.1167/18.10.493.

Cavanagh, P. (2018). Predicting the present: saccade based vs motion-based remapping. *Journal of Vision*, 18(10):1367-1367. doi: 10.1167/18.10.1367.

2017

Adamian, N., & Cavanagh, P. (2017). Fröhlich effects and delays of visual attention. *Journal of Vision*, **17**(1):3. doi: 10.1167/17.1.3

Anstis, S., & Cavanagh, P. (2017). Moving backgrounds massively change the apparent size, shape, and orientation of flashed test squares. *iPerception*, **8**(6), 1-4. doi: 10.1177/2041669517737561

Connolly, S., Connolly, D., Cleary, A., Herman, L., & Cavanagh, P. (2017). Build your own equiluminance helmet. *i-Perception*, **8**(4), doi: 10.1177/2041669517716467

Edwards, G., Paeye, C., Marque, P. VanRullen, R., & Cavanagh P. (2017) Predictive position computations mediated by parietal areas: TMS evidence. *Neuroimage*, **153**, 49-57. doi: 10.1073/pnas.1615504114

Greenwood, J., Szinte, M., Sayim, B., & Cavanagh, P. (2017). Variations in crowding, saccadic precision, and spatial localization reveal the shared topology of spatial vision. *PNAS*, **114**(17), E3573-E3582. doi/10.1073/pnas.1615504114.

Kohler, P. J., Cavanagh, P., & Tse, P. U. (2017). Motion-induced position shifts activate early visual cortex. *Frontiers in Neuroscience*, **11**:168. doi: 10.3389/fnins.2017.00168.

Lisi, M., & Cavanagh, P. (2017). Different spatial representations guide eye and hand movements. *Journal of Vision*, **17**(2):12. doi: 10.1167/17.2.12

Maus, G. W., Duyck, M., Lisi, M., Collins, T., Whitney, D., & Cavanagh, P. (2017). Target displacements during eye blinks trigger automatic recalibration of gaze direction. *Current Biology*, **27**(3), 445-450. doi: 10.1016/j.cub.2016.12.029.

Paeye, C., Collins, T., & Cavanagh, P. (2017). Trans-saccadic perceptual fusion. *Journal of Vision*, **17**(1):14. doi: 10.1167/17.1.14.

Silvestre, D., Cavanagh, P., Arleo, A., & Allard, R. (2017). Adding localized noise can enhance the contribution of top-down processing on contrast detection. *Journal of Vision*, **17**(2):5. doi: 10.1167/17.2.5

Published Abstracts

Lui, S., Yu, Q., Tse, P. & Cavanagh, P. (2017). Neural basis of the double-drift illusion. *Journal of Vision*, **17**, 603.

Frank, S., Sun, L., Cavanagh, P., Greenlee, M., & Tse, P. (2017) Perceptual learning based on the learning of diagnostic features. *Journal of Vision*, **17**, 506.

Edwards, G., VanRullen, R., & Cavanagh, P. EEG decoding of pre-saccadic effects on post-saccadic processing. *Journal of Vision*, **17**, 738.

Massendari, D., Lisi, M., Cavanagh, P., & Collins, T. (2017). Is the efference copy of a saccade influenced by a perceptual illusion. *Journal of Vision*, **17**, 879.

Lisi, M. & Cavanagh, P. (2017). Cooperative interactions between saccadic and pursuit planning when targeting a moving object. *Journal of Vision*, **17**, 1278.

2016

Anstis, S., Dykmans, N., Kaneko, S., & Cavanagh, P. (2016). Orbiting black/white rays produce an "illusory" gray disk. *Perception*, 45(5), 596-600. doi: 10.1177/0301006616629031

Born, S. Krüger, H. M., Zimmermann, E., & Cavanagh, P. (2016). Compression of space for low visibility probes. *Frontiers in Systems Neuroscience*, **10**(21), 1-13.

Bourrelly, C., Quinet, J., Cavanagh, P. & Goffart, L. (2016). Learning the trajectory of a moving visual target and evolution of its tracking in the monkey. *Journal of Neurophysiology*, **116**(6), 2739-2751. doi: 10.1152/jn.00519.2016

Eymond, C., Collins, T., & Cavanagh, P. (2016). Feature-based attention across saccades and immediate post-saccadic selection. *Attention, Perception, & Performance*, **78**(5), 1293-1301.

Knapen, T., Swisher, J. D., Tong, F., & Cavanagh, P. (2016). Oculomotor remapping of visual information to foveal retinotopic cortex. *Frontiers in System Neuroscience*, **10**(54), 1-12. doi: 10.3389/fnsys.2016.00054

Krüger, H. M., Collins, T., Englitz, B., & Cavanagh, P. (2016) Saccades create similar mislocalizations in visual and auditory space. *Journal of Neurophysiology*, **115**(4), 2237-2245. doi: 10.1152/jn.00853.2014

Szinte, M., Jonikaitis, D., Rolfs, M., Cavanagh, P., & Deubel, H. (2016). Pre-saccadic motion integration between current and future retinotopic locations of attended objects. *Journal of Neurophysiology*, 116(4), 1592-1602. doi: 10.1152/jn.00171.2016

Thibault, L., van den Berg, R. Cavanagh, P. & Sergent, C. (2016). Retrospective attention gates discrete conscious access to past sensory stimuli. *PLoS One*, **11**(2) : e0148504. doi: 10.1371/journal.pone.0148504.

Wu, D.-A., & Cavanagh, P. (2016). Where are you looking? Pseudogaze in afterimages. *Journal of Vision*, **16**(5):6.

Published Abstracts

Adamian, N., & Cavanagh, P. (2016). Localization of flash grab targets is improved with sustained spatial attention. *Journal of Vision*, **16**(12):1266. doi: 10.1167/16.12.1266.

Adamian, N., & Cavanagh, P. (2016). Motion-induced distortion of shapes. *Perception,* **45**(8:S1), 55.

Cavanagh, P., Adamian, N., Duyck, M, & Seizova-Cajic, T. (2016). Perceptual gap closing induced by motion. *Perception,* **45**(8:S1), 186.

Edwards, G., Marque, P., VanRullen, R., & Cavanagh, P. (2016). Predictive position percepts mediated by parietal areas: TMS evidence. *Journal of Vision*, **16**(12):562. doi: 10.1167/16.12.562.

Eymond, C., Cavanagh, P., & Collins, T. (2016). Pop-out in feature search is spatiotopic.. *Journal of Vision,* **16**(12):1281. doi: 10.1167/16.12.1281.

Haladjian, H., Anstis, S., Seizova-Cajic, T., Wexler, M., & Cavanagh, P. (2016). Comparing ambiguous apparent motion in tactile and visual stimuli. *Perception,* **45**(8:S1), 146.

Haladjian, H., Lisi, M., & Cavanagh, P. (2016). Multiple object tracking is immune from a strong perceptual illusion. *Journal of Vision*, **16**(12):1260. doi: 10.1167/16.12.1260.

Liu, S. & Cavanagh, P. (2016). The double-drift illusion is isotropic across visual field locations and directions. *Journal of Vision*, **16**(12):663. doi: 10.1167/16.12.663.

Massendari, D., Lisi, M., Collins, T, & Cavanagh, P. (2016). A dissociation between the perceptual and saccadic localization of moving objects for reactive saccades but not for memory-guided saccades. *Journal of Vision,* **16**(12):934. doi: 10.1167/16.12.934.

Paeye, C., Cavanagh, P., Collins, T., & Herwig, A. (2016). Associative learning in peripheral perception of shape. *Journal of Vision*, **16**(12):121. doi: 10.1167/16.12.121.

Störmer, V., & Cavanagh, P. (2016). Ipsilateral positivity as neurophysiological evidence for predictive remapping in humans. *Journal of Vision,* **16**(12):100. doi: 10.1167/16.12.100.

2015

Born, S., Zimmerman, E., & Cavanagh, P. (2015). The spatial profile of mask-induced compression for perception and action. *Vision Research*, **110**, 128-141.

de Vito, S., Lunven, M., Bourlon, C., Duret, C., Cavanagh, P., & Bartolomeo, P. (2015) When brain damage improves perception: Neglect patients can localize motion-shifted probes better than controls. *Journal of Neurophysiology*, **114**(6), 3351-3358.

Hogendoorn, H., Verstraten, F. A. J., & Cavanagh, P. (2015). Strikingly rapid neural basis of motion-induced position shifts revealed by high temporal-resolution EEG pattern classification. *Vision Research*, **113**, 1-10.

Kohler, P. J., Cavanagh, P., & Tse, P. U. (2015). Motion-induced position shifts are influenced by global motion, but dominated by component motion. *Vision Research*, **110**, 93-99.

Lisi, M., & Cavanagh, P. (2015). Dissociation between the perceptual and saccadic localization of moving objects. *Current Biology*, **25**, 2535-2540.

Lisi, M., Cavanagh, P., & Zorzi, M. (2015). Spatial constancy of attention across eye movements is mediated by the presence of visual objects. *Attention, Perception & Psychophysics*, **77**, 1159-1169.

Perdreau, F., & Cavanagh, P. (2015). Drawing experts have better visual memory while drawing. *Journal of Vision*, **15**(5):5.

Shioiri, S, Ogawa, M., Yaguchi, H., & Cavanagh, P. (2015). Attentional facilitation of detection of flicker on moving objects. *Journal of Vision*, **15**(14):3.

Szinte, M., Carrasco, M., Cavanagh, P., & Rolfs, M. (2015). Attentional tradeoffs maintain the tracking of moving objects across saccades. *Journal of Neurophysiology*, **113**, 2220-2231.

Veenemans, A. A., & Cavanagh, P. (2015). An unattended mask makes an attended target disappear. *Journal of Vision*, **15**(14):9.

Published Abstracts

Adamian, N., & Cavanagh, P. (2015). Motion-induced position shifts smaller across vertical and horizontal meridians. *Perception,* **44**(S1), 238.

Adamian, N., Cavanagh, P. (2015). Speed of visual attention and localization of motion onset. *Journal of Vision* **15**(12):1178.

Born, S., Krüger, H. M., Cavanagh, P. (2015). Stimulus duration and compression of space. *Journal of Eye Movement Research*, **8**(4):103.

Born, S., Zimmermann, E., & Cavanagh, P. (2015). Compression of space as a default for localizing degraded targets in the context of highly visible stimuli. *Journal of Vision* **15**(12):548.

Cavanagh, P., Duyck, M., Eymond, C., Maus, G., Schumann, F., Störmer, V., Veenemans, A., Whitney, D., & Wu, D. A. (2015). Feeling the future. *Journal of Vision* **15**(12):1177.

Eymond, C., Paeye, C., Duyck, M., Cavanagh, P., & Collins, T. (2015). Sensorimotor adaptation of size perception. *Journal of Vision* **15**(12):203.

Kosovicheva, A., Wolfe, B., Cavanagh, P., Gorea, A., & Whitney, D. (2015). Dynamic recalibration of perceived space across the visual hemifields. *Journal of Vision* **15**(12):526.

Krüger, H. M., Collins, T., & Cavanagh, P. (2015). On the perception of space following saccadic adaptation. *Journal of Eye Movement Research*, **8**(4):103.

Lisi, M., & Cavanagh, P. (2015). A dissociation of motion processing for saccades, smooth pursuit, and perception measured for the same target. *Journal of Vision* **15**(12):746.

Maus, G., Cavanagh, P., Collins, T., Duyck, M., Lisi, M., Wexler, M., & Whitney, D. (2015). Target displacements during blinks trigger corrective gaze adaptation. *Journal of Vision* **15**(12):1308.

McLelland, D., Lavergne, L., Zimmermann, E., Cavanagh, P., & VanRullen, R. (2015). Illusory reversal of temporal order around the time of visual disruptions. *Journal of Vision* **15**(12):68.

Paeye, C., Collins, T., & Cavanagh, P. (2015). Evidence for trans-saccadic fusion. *Journal of Eye Movement Research*, **8**(4):190.

Paeye, C., Collins, T., & Cavanagh, P. (2015). Trans-saccadic attraction between highly dissimilar pre- and post-saccadic stimuli. *Journal of Vision* **15**(12):600.

Thibault, L., Cavanagh, P., & Sergent, C. (2015). Retroactive Attention can Trigger all-or-none Conscious Access to Past Sensory Stimulus. *Journal of Vision* **15**(12):547.

2014

Cavanagh, P. (2014). Guest editorial: Applied neuroscience. *Current Biology*, **24**, R849-851.

Cavanagh, P. (2014). Q & A: Patrick Cavanagh. *Current Biology*, **24**, R260-262.

Cavanagh, P., Battelli, L., & Holcombe, A. O. (2014). Dynamic attention. In Anna C. Nobre and Sabine Kastner (eds.), *The Oxford Handbook of Attention*. Oxford, UK: Oxford University Press, pp. 652-675.

Greenwood, J., Sayim B., & Cavanagh, P. (2014). Crowding is reduced by onset transients in the targets but not in the flankers. *Journal of Vision*, **14**(6):2, 1-21.

Li, H.-H., Shim, W. M., & Cavanagh, P. (2014). Backward position shift in apparent motion. *Journal of Vision*, **14**(1):16, 1-10.

MacDonald, J., Cavanagh, P., & VanRullen, R. (2014). Attentional sampling of multiple wagon wheels. *Attention, Perception, & Psychophysics*, **76**(1), 64-72.

Perdreau, F., & Cavanagh, P. (2014). Drawing skill is related to the efficiency of encoding object structure. *i-Perception,* **5**, 101-114.

Sayim, B., Greenwood,. J. Cavanagh, P. (2014). Foveal target repetitions reduce crowding. *Journal of Vision*, **14**(6):4, 1-12.

Störmer, V., Alvarez, G., & Cavanagh, P. (2014). Within-hemifield competition in early visual areas limits the ability to track multiple objects with attention. *Journal of Neuroscience*, **34**, 11526-11533.

Tripathy, S., Cavanagh, P., & Bedell, H. (2014). Large crowding zones in peripheral vision for briefly-presented stimuli. *Journal of Vision*, **14**(6):11, 1-11.

Zimmerman, E., Born, S., Fink, G. R., & Cavanagh, P. (2014). Masking produces compression of space and time in the absence of eye movements. *Journal of Neurophysiology*, **112**, 3066-3076.

Published Abstracts

Born, S., Zimmermann, E., Cavanagh, P. (2014). Masks cause compression of space for perception and saccade endpoints. *Journal of Vision*, **14**(10):582.

Born, S., Zimmermann, E., Cavanagh, P. (2014). Perifixational compression of space through masking: two references, two-dimensional mislocalization. *Perception,* **43** (10), 1114-1115.

Cavanagh, P., Born, S., & Zimmermann, E. (2014). Spatial compression: A consequence of relocalization following disruption of the visual stream by masks or saccades. Program No. 288.09. *Neurosciences Meeting Planner*. Washington, DC: Society for Neuroscience, 2014. Online.

Cavanagh, P. (2014). Where. *Perception,* **43** (10), 601-602.

Eymond, C., Cavanagh, P., & Collins, T. (2014). Feature-based attention and trans-saccadic correspondence *Journal of Vision*, **14**(10):1051.

Krüger, H., Collins, T., & Cavanagh, P. (2014). Similar effects of saccades on auditory and visual localization suggest common spatial map. *Journal of Vision*, **14**(10):1232.

Lisi, M., & Cavanagh, P. (2014). The infinite regression illusion reveals dissociation between perception and action. *Journal of Vision*, **14**(10):1221.

Lisi, M., & Cavanagh, P. (2014). Saccades are not affected by the infinite regress illusion. *Perception,* **43** (10), 1120-1121.

Perdreau, F., & Cavanagh, P. (2014). Does drawing skill relate to better memory of local or global object structure? *Journal of Vision*, **14**(10):33.

Szinte, M., Jonikaitis, D., Rolfs, M., Cavanagh, P., & Deubel, H. (2014). Pre-saccadic motion integration between current and remapped locations. *Journal of Vision*, **14**(10):580.

2013

Cavanagh, P. & Anstis, S. (2013). The flash grab effect. *Vision Research*, **91**, 8-20.

Franconeri, S. L., Alvarez, G. A., & Cavanagh, P. (2013). Flexible cognitive resources: competitive content maps for attention and memory. *Trends in Cognitive Sciences*, **17**, 134-141.

Ikeda, H., Watanabe, K., & Cavanagh, P. (2013). Crowding of biological motion stimuli. *Journal of Vision*, **13**(4):20, 1-6.

Jonikaitis, D., Szinte, M., Rolfs, M., & Cavanagh, P. (2013). Allocation of attention across saccades. *Journal of Neurophysiology*. **109**, 1416-1424.

Pelli, D. G., & Cavanagh, P. (2013) Object recognition: visual crowding from a distance. *Current Biology (Dispatch)*, **23**, R478-R479.

Perdreau, F., & Cavanagh, P. (2013). The artist's advantage: better integration of object information across eye-movements. *i-Perception,* **4**(6), 380-395.

Perdreau, F., & Cavanagh, P. (2013). Is artists' perception more veridical? *Frontiers in Neuroscience*, **7**:6.

Rolfs, M., Dambacher, M., & Cavanagh, P. (2013). Visual adaptation of the perception of causality. *Current Biology*, **23**, 250-254.

Sayim, B., & Cavanagh, P. (2013). Grouping and crowding affect target appearance over different spatial scales. *PLoS ONE*, **8**(8), e71188.

Wexler, M,. Glennerster, A., Cavanagh, P., & Ito, H. (2013). Default perception of high-speed motion. *Proceedings of the National Academy of Sciences*, **110**(17), 7080-7085.

Zimmerman, E., Fink, G. R., & Cavanagh, P. (2013). Perifoveal spatial compression. *Journal of Vision*, **13**(5):21, 1-9.

Published Abstracts

Greenwood, J., & Cavanagh, P. (2013). A release from crowding using task-irrelevant object parts. *Journal of Vision*, **13**(9), 622.

Hein, E., Moore, C. M., & Cavanagh, P. (2013). An attention pointer account of motion correspondence. *Perception* **42** ECVP Abstract Supplement, 159.

Li, H.-H., Shim, W. M., & Cavanagh, P. (2013). Cross-modal motion-induced position shift. *Journal of Vision*, **13**(9), 373.

Perdreau, F., & Cavanagh, P. (2013). The artist's advantage: better spatial and temporal integration of object structure. *Journal of Vision*, **13**(9), 1005.

Stanley, J., Forte, J., Cavanagh, P., & Carter, O. (2013). Color and luminance influence, but cannot explain, binocular rivalry onset bias. *Journal of Vision*, **13**(9), 935.

Störmer, V., Cavanagh, P., & Alvarez, G. (2013). The profile of multifocal attention: surround-suppression between and within hemifields. *Journal of Vision*, **13**(9), 1283.

Szinte, M., Rolfs, M., Carrasco, M, & Cavanagh, P. (2013). Remapping of attentionally tracked locations. *Journal of Vision*, **13**(9), 109.

Tripathy, S., Cavanagh, P., & Bedell, H. (2013). Large interaction zones for visual crowding for briefly presented peripheral stimuli. *Journal of Vision*, **13**(9), 571.

Zimmermann, E., Fink, G., & Cavanagh, P. (2013). Matched objects seem closer when masked. *Perception* **42** ECVP Abstract Supplement, 14.

Zimmermann, E., Fink, G., & Cavanagh, P. (2013). Perifoveal spatial compression. *Journal of Vision*, **13**(9), 630.

2012

Allard, R. & Cavanagh, P. (2012). Different processing strategies underlie voluntary averaging in low and high noise. *Journal of Vision*, **12**(11):6, 1-12.

Alvarez, G. A., Gill, J. V., & Cavanagh, P. (2012). Anatomical Constraints on Attention: Hemifield Independence is a Signature of Multifocal Spatial Selection. *Journal of Vision*, **12**(5):9, 1-20.

Butcher, S. J., & Cavanagh, P. (2012). Familiarity does not affect the unilateral field advantage for repetition detection. *Attention, Perception & Psychophysics*, **74**, 1216-1225.

Cohen, M. A., Cavanagh, P., Chun, M. M., Nakayama, K. (2012). The attentional requirements of consciousness. *Trends in Cognitive Sciences*, **16**, 411 - 417.

Cohen, M. A., Cavanagh, P., Chun, M. M., Nakayama, K. (2012). Response to Tsuchiya et al.: considering endogenous and exogenous attention. *Trends in Cognitive Sciences*, **16**, [Epub ahead of print].

Hein, E, & Cavanagh, P. (2012). Motion correspondence in the Ternus display shows feature bias in spatiotopic coordinates. *Journal of Vision*, **12**(7):16, 1-14.

Kosovicheva, A. A., Maus, G. W., Anstis, S., Cavanagh, P., Tse, P. U., & Whitney, D. (2012). The motion-induced shift in the perceived location of a grating also shifts its aftereffect. *Journal of Vision*, **12**(8):7, 1-14.

Solomon, J. A., Cavanagh, P., & Gorea, A. (2012). Recognition criteria vary with fluctuating uncertainty. *Journal of Vision*, **12**(8):2, 1-13.

Szinte, M., Wexler, M., & Cavanagh, P. (2012). Temporal dynamics of remapping captured by peri-saccadic continuous motion. *Journal of Vision*, **12**(7):12, 1-18.

Szinte, M., & Cavanagh, P. (2012). Apparent motion from outside the visual field, retinotopic cortices may register extra-retinal positions. *PLoS ONE*, **7**(10):e47386, 1-9.

van Vugt, F. T., & Cavanagh, P. (2012). Response trajectories reveal conflict phase in image-word mismatch. *Attention, Perception, & Psychophysics*, **74**, 263-268.

Yeh, S.-L., He, S., & Cavanagh, P. (2012). Semantic priming from crowded words. *Psychological Science*, **23**(6), 608-616.

Published Abstracts

Cavanagh, P. (2012). The motion of pure colour: it's all in the jitter. *Perception* **41** ECVP Abstract Supplement, 3.

Cavanagh, P., & Anstis, S. (2012). The Flash Grab Effect. *Journal of Vision*, 12(9), 778.

Gorea, A., Cavanagh, P., & Solomon, J. (2012). On successive memories. *Journal of Vision*, 12(9), 859.

Greenwood, J., Szinte, M., Sayim, B., & Cavanagh, P. (2012). Shared spatial uncertainty for crowding and saccades. *Journal of Vision*, 12(9), 599.

Hein, E., & Cavanagh, P. (2012). Features bias correspondence in apparent motion over short distances in the Ternus display but long distances in split motion. *Journal of Vision*, 12(9), 1230.

Ikeda, H., Watanabe, K., & Cavanagh, P. (2012). Influence of crowding on discriminating the direction of biological motion. *Perception,* **41** ECVP Abstract Supplement, 150.

Lisi, M., Cavanagh, P., & Zorzi, M. (2012). Extreme motion aftereffects. *Perception,* **41** ECVP Abstract Supplement, 138.

Perdreau, F., & Cavanagh, P. (2012). The Artist's visual span: better performance through smaller windows. *Journal of Vision*, 12(9),1068.

Sayim, B., Greenwood, J., & Cavanagh, P. (2012). A remote target repetition reduces crowding. *Journal of Vision*, 12(9), 596.

Sayim, B., Greenwood, J., & Cavanagh, P. (2012). Temporal dynamics of the remote

facilitation effect in crowding. *Perception,* **41** ECVP Abstract Supplement, 32.

Szinte, M., Jonikaitis, D., Rolfs, M., & Cavanagh, P. (2012). Allocation of attention across saccades *Journal of Vision*, 12(9), 440.

Wexler, M., Glennerster, A., & Cavanagh, P. (2012). Role of landmark objects in the orienting of attention across saccades. *Perception,* **41** ECVP Abstract Supplement, 34.

2011

Allard, R. & Cavanagh, P. (2011). Crowding in a detection task: External noise triggers change in processing strategy. *Vision Research*, **51**, 408-416.

Cavanagh, P. (2011). Visual cognition. *Vision Research*, **13**, 1538-1551.

Cavanagh, P., & He, S. (2011). Attention mechanisms for counting in stabilized and dynamic displays. In Stanislas Dehaene and Elizabeth Brannon (Eds.), *Space Time and Number, Attention & Performance XXIV*, London: Academic Press, Ch. 3, pp. 23-40.

Hunt, A. R., & Cavanagh, P. (2011). Remapped visual masking. *Journal of Vision*, **11**(1):13, 1-8.

Melcher, D. & Cavanagh, P. (2011). Pictorial cues in art and in visual perception. In Francesca Bacci and David Melcher (Eds.), *Art and the senses*. Oxford, UK: Oxford University Press, pp. 359-394.

Perdreau, F. & Cavanagh, P. (2011). Do artists see their retinas? *Frontiers in Human Neuroscience,* **5**:171.

Rolfs, M., Jonikaitis, D., Deubel, H., & Cavanagh, P. (2011). Predictive remapping of attention across eye movements. *Nature Neuroscience*, **14**, 252-256.

Sayim, B., & Cavanagh P. (2011). The art of transparency. *i-Perception*, **2**, 679-696.

Sayim, B., & Cavanagh P. (2011). What line drawings reveal about the visual brain. *Frontiers in Human Neuroscience*, **5**:118, 1-4

Stanley, J., Forte, J., Cavanagh, P., & Carter, O. (2011). Onset rivalry: the initial dominance phase is independent of ongoing perceptual alternations. *Frontiers in Human Neuroscience*, **5**:140, 1-9.

Szinte, M. & Cavanagh, P. (2011). Spatiotopic apparent motion reveals local variations in space constancy. *Journal of Vision*, **11**(2):4, 1-20.

Toba, M. N., Cavanagh, P., & Bartolomeo, P. (2011). Attention biases the perceived midpoint of horizontal lines. *Neuropsychologia*, **49**, 238-246.

Tse, P. U., Whitney, D., Anstis, S., & Cavanagh, P. (2011). Voluntary attention modulates motion-induced mislocalization. *Journal of Vision*, **11**(3):12, 1-7.

Vaziri Pashkam, M., & Cavanagh, P. (2011). Effect of speed overestimation on flash lag effect at low luminance. *i-Perception*, , **2**(9) 1063–1075.

Published Abstracts

Anstis, S., & Cavanagh, P. (2011). Large illusory displacements of spots flashed on a moving object. *Journal of Vision*, 11(11):698.

Dambacher, M., Rolfs, M., & Cavanagh, P. (2011). Visual adaptation of causality. *Journal of Vision*, 11(11):1061.

Gorea, A., Cavanagh, P., Solomon, J. A. (2011). Sequential decisions on a memorized visual feature reveal implicit knowledge of decision errors. *Perception* **40** ECVP Abstract Supplement, 83.

Greenwood, J., & Cavanagh, P. (2011). Transient target signals reduce crowding, transient flanker signals do not. *Perception* **40** ECVP Abstract Supplement, 34.

Hein, E., & Cavanagh, P. (2011). Correspondence in apparent motion: Features don't like to travel far. *Journal of Vision*, 11(11):1101.

Hein, E., & Cavanagh, P. (2011). Motion correspondence shows feature bias in spatiotopic coordinates. *Perception* **40** ECVP Abstract Supplement, 27.

Kosovicheva, A. A., Maus, G. W., Anstis, S., Cavanagh, P., Tse, P. U., & Whitney, D. (2011). The motion-induced shift in the perceived location of a grating also shifts its aftereffect. *Journal of Vision*, 11(11):754.

Morvan, C., & Cavanagh, P. (2011). Crowding is immune to the pre-saccadic shift of attention. *Perception* **40** ECVP Abstract Supplement, 35.

Morvan, C., Deubel, H., & Cavanagh, P. (2011). Saccade target visible on landing despite removal: Can human observers see the prediction generated by presaccadic remapping? *Journal of Vision*, 11(11):538.

Perdreau, F., & Cavanagh, P. (2011). Do Artists See their Retinas? *Perception* **40** ECVP Abstract Supplement, 222.

Sayim, B., & Cavanagh, P. (2011). Effects of target-flanker grouping in crowding inside and outside the critical spacing. *Journal of Vision*, 11(11):1157.

Sayim, B., & Cavanagh, P. (2011). Long range grouping affects crowding. *Perception* **40** ECVP Abstract Supplement, 35.

Szinte, M., Correia, S., & Cavanagh, P. (2011). Breakdown of spatial constancy for head roll but not head translation. *Journal of Vision*, 11(11):522.

Tse, P., Whitney, D., Anstis, S., & Cavanagh, P. (2011). Voluntary attention modulates motion-induced mislocalization. *Journal of Vision*, 11(11): 119.

Vaziri Pashkam, M., & Cavanagh, P. (2011). Saccades to moving targets are not influenced by the speed overestimation at low luminance. *Journal of Vision*, 11(11):497.

Veenemans, A. & Cavanagh, P. (2011). Tailgate masking: the obliterating effect of the unattended mask. *Journal of Vision*, 11(11): 216.

Yeh, S.-L., He, S., & Cavanagh, P. (2011). Extraction of semantic information from unidentifiable, crowded words. *Journal of Vision*, 11(11):1144.

2010

Afraz, A., Vaziri Pashkam, M., & Cavanagh, P. (2010). Spatial heterogeneity in the perception of face and form attributes, *Current Biology*, 20, 2112-2116.

Cavanagh, P., Hunt, A., Afraz, A., & Rolfs, M. (2010). Visual stability based on remapping of attention pointers. *Trends in Cognitive Sciences*, **14**, 147-153.

Cavanagh, P., Hunt, A. R., Afraz, A., & Rolfs, M. (2010). Attention Pointers: Response to Mayo and Sommer. *Trends in Cognitive Sciences*, 14(9), 390-391.

Cavanagh, P., Hunt, A. R., Afraz, A., & Rolfs, M. (2010). Attentional Pointers: Response to Melcher. *Trends in Cognitive Sciences*, 14(9), 474-475.

Knapen, T., Rolfs, M., Wexler, M., & Cavanagh, P. (2010). The reference frame of the tilt aftereffect. *Journal of Vision*, **10**(1):8, 1-13.

Rolfs, M., Knapen, T., & Cavanagh, P. (2010). Global saccadic adaptation. *Vision Research*, 50, 1882-1890.

Published Abstracts

Afraz, S., & Cavanagh, P. (2010). Sparse sampling degrades translational invariance for smaller stimuli. Program No. 326.7. *Neurosciences Meeting Planner*. Chicago, IL: Society for Neuroscience, 2010. Online.

Allard, R., & Cavanagh, P. (2010). Different processing strategies underlie mean orientation discrimination in low and high orientation variance. *Perception* **39** ECVP Abstract Supplement, 186.

Allard, R., & Cavanagh, P. (2010). Orientation uncertainty reveals different detection strategies in noise. [Abstract]. *Journal of Vision*, **10**(7):1371.

Cavanagh, P. (2010). All jazzy. Gregorian explorations of pure colour. *Perception* **39** ECVP Abstract Supplement, 1.

Cavanagh, P., Whitney, D., & Szinte, M. (2010). Motion reveals imperfect spatial constancy for head tilt compared to head translation. Program No. 327.4. *Neurosciences Meeting Planner*. Chicago, IL: Society for Neuroscience, 2010. Online.

Vaziri Pashkam, M., & Cavanagh, P. (2010). Effect of speed overestimation on flash lag effect at low luminance. Program No. 278.9/RR9. *Neurosciences Meeting Planner*. Chicago, IL: Society for Neuroscience, 2010. Online.

Knapen, T., Swisher, J., Wolfe, B., Tong, F., & Cavanagh, P. (2010). Phase-encoded fmri investigation of retinotopic remapping responses. [Abstract]. *Journal of Vision*, **10**(7), 510.

Rolfs, M., Jonikaitis, D., Deubel, H., & Cavanagh, P. (2010). Behavioural evidence for the remapping of saccade target locations. *Perception* **39** ECVP Abstract Supplement, 110.

Rolfs, M., Jonikaitis, D., Deubel, H., & Cavanagh, P. (2010). Predictive updating of attention to saccade targets. [Abstract]. *Journal of Vision*, **10**(7):206.

Szinte, M., Wexler, M., & Cavanagh, P. (2010). Temporal dynamics of remapping captured by peri-saccadic motion trace. [Abstract]. *Journal of Vision*, **10**(7):158.

Vaziri Pashkam, M., & Cavanagh, P. (2010). Effect of speed overestimation on manual hitting at low luminance. [Abstract]. *Journal of Vision*, **10**(7):1076.

Wu, D.-A., & Cavanagh, P. (2010). Where are you looking: Pseudogaze in afterimages. [Abstract]. *Journal of Vision*, **10**(7):560.

2009

Afraz, S. R., & Cavanagh, P. (2009) The gender-specific face aftereffect is based in retinotopic not spatiotopic coordinates across several natural image transformations. *Journal of Vision*, **9**(10):4, 1-9.

Cavanagh, P. (2009). All's jazzy and unstable on the colour front: the impact of Gregory's pioneering paper on vision at equiluminance. *Perception*, 38, 831-2.

Chakravarthi, R., & Cavanagh, P. (2009). Bilateral field advantage in visual crowding. *Vision Research*, **49**, 1638-1646.

Chakravarthi, R., & Cavanagh, P. (2009). Recovery of a crowded object by masking the flankers: Determining the locus of feature integration. *Journal of Vision*, **9**(10):4, 1-9.

Collins, T., Rolfs, M., Deubel, H., & Cavanagh, P. (2009). Post-saccadic location judgments reveal remapping of saccade targets to foveal locations. *Journal of Vision*, **9**(5):29, 1-9.

Hunt, A. R., & Cavanagh, P. (2009). Looking ahead: The perceived direction of gaze shifts before the eyes move. *Journal of Vision*, **9**(9):1, 1-7.

Ito, H., Anstis, S., & Cavanagh, P. (2009). Illusory movement of dotted lines. *Perception*, 38, 1405-1409.

Knapen, T., Rolfs, M., & Cavanagh, P. (2009). The reference frame of the motion aftereffect is retinotopic. *Journal of Vision*, **9**(5):16, 1-7.

Published Abstracts

Afraz, A. S. R., & Cavanagh, P. (2009). The face aftereffect spreads over changes in position, orientation and size in retinotopic, not space- or object-based coordinates [Abstract]. *Journal of Vision*, **9**(8):450, 450a.

Afraz, S., & Cavanagh, P. (2009). Local gender biases in face appearance. Program No. 603.9. *Neurosciences Meeting Planner*. Chicago, IL: Society for Neuroscience, 2010. Online.

Allard, R., & Cavanagh, P. (2009). Detection mechanisms selective to combinations of luminance- and contrast-modulations [Abstract]. *Journal of Vision*, **9**(8):973, 973a.

Allard. R., & Cavanagh, P. (2009). External noise reveals crowding in detection. *Perception*, **38**, ECVP Abstract Supplement, 93.

Cavanagh, P., & Szinte, M. (2009). Spatiotopic apparent motion [Abstract]. *Journal of Vision*, **9**(8):20, 20a.

Cavanagh, P. (2009). The position sense. *Perception,* **38**, ECVP Abstract Supplement, 15.

Knapen, T., Rolfs, M., & Cavanagh, P. (2009). The coordinate system of the motion aftereffect is retinotopic [Abstract]. *Journal of Vision*, **9**(8):682, 682a.

Knapen, T., Rolfs, M., Wexler, M., & Cavanagh, P. (2009). Orientation and motion aftereffects are in retinotopic not world coordinates. *Perception*, **38**, ECVP Abstract Supplement, 90.

Lin, S.-Y., & Cavanagh, P. (2009). Pre-masking is pre-attentive while post-masking is post-attentive. *Perception,* **38**, ECVP Abstract Supplement, 139.

Rolfs, M., Knapen, T., & Cavanagh, P. (2009). Shrinking the oculomotor world using global saccadic adaptation [Abstract]. *Journal of Vision*, **9**(8):417, 417a.

Rolfs, M., Collins, T., Deubel, H., & Cavanagh, P. (2009). Accurate remapping of saccade targets to non-foveal locations. *Perception*, **38**, ECVP Abstract Supplement, 157.

Szinte, M., & Cavanagh, P. (2009). Apparent motion from outside the visual field: Retinotopic cortices may register extraretinal locations [Abstract]. *Journal of Vision*, **9**(8):694, 694a.

van Vugt, F. T., & Cavanagh, P. (2009). Tracking the time course of processing spatial prepositions using response trajectories. *Perception*, **38**, ECVP Abstract Supplement, 128.

Vaziri Pashkam, M., & Cavanagh, P. (2009). Spatiotopic priming in visual search [Abstract]. *Journal of Vision*, **9**(8):1206, 1206a.

Veenemans, A., Cavanagh, P., & Chakravarthi, R. (2009). Crowding by invisible flankers [Abstract]. *Journal of Vision*, **9**(8):996, 996a.

Veenemans, A. A., & Cavanagh, P. (2009). Effects of ISI on tailgate blindness. *Perception*, **38**, ECVP Abstract Supplement, 72.

Wu, D.-A., Carlson, T., Alvarez, G., & Cavanagh, P. (2009). Visual manifestation of body schema abnormalities in a case of alien hand syndrome [Abstract]. *Journal of Vision*, **9**(8):1140, 1140a.

2008

Afraz, S. R., & Cavanagh, P. (2008). Retinotopy of the face aftereffect. *Vision Research*, **48**, 42-54.

Alvarez, G. A., & Cavanagh, P. (2008). Visual short-term memory operates more efficiently on boundary features than on surface features. *Perception & Psychophysics*, **70**, 346-364.

Battelli L, Walsh V, Pascual-Leone A, Cavanagh P. (2008). The 'when' parietal pathway explored by lesion studies. *Curr Opin Neurobiol*. **18**, 120-6.

Butcher, S, & Cavanagh, P. (2008). Unilateral field advantage for detecting repeated elements. *Perception & Psychophysics,* **70**, 714-724.

Cavanagh, P., Chao, J., & Wang, D. (2008). Reflections in art. *Spatial Vision*, **21**, 261-270.

Cavanagh, P., Holcombe, A. O., & Chou, W. (2008). Mobile computation : spatiotemporal integration of the properties of objects in motion. *Journal of Vision*, **8(12):1**, 1-23.

Holcombe, A. O., & Cavanagh, P. (2008). Independent, synchronous access to color and motion features. *Cognition*, **107**, 552-580.

Pepperberg, I. M., Vicinay, J., & Cavanagh, P. (2008). Processing of the Müller-Lyer illusion by a Grey parrot (Psittacus erithacus). *Perception*, **37**, 765-781.

Vaziri-Pashkam, M., & Cavanagh, P. (2008). Apparent speed increases at low luminance. *Journal of Vision*, 8(16):9, 1-12.

Published Abstracts

Afraz, S.-R., Vaziri-Pashkam, M., & Cavanagh, P. (2008). Local gender biases in face appearance across the visual field [Abstract]. *Journal of Vision*, **8**(6):965, 965a.

Wu, D.-A., & Cavanagh, P. (2008). Retinal mapping can distort to avoid the "impossible space" outside the visual field [Abstract]. *Journal of Vision*, **8**(6):440, 440a.

Vaziri Pashkam, M., & Cavanagh, P. (2008). Blur increases perceived speed [Abstract]. *Journal of Vision*, **8**(6):605, 605a.

Hunt, A., & Cavanagh, P. (2008). Clocking saccadic remapping [Abstract*]. Journal of Vision*, **8**(6):818, 818a.

Hunt, A. R., & Cavanagh, P. (2008). Changes in visual masking during presaccadic remapping of space. *Perception*, **37**, ECVP Abstract Supplement, 89.

2007

Aghdaee, S. M., & Cavanagh, P (2007). Temporal limits of long-range phase discrimination across the visual field. *Vision Research*, **47**, 2156-63.

Battelli, L., Pascual-Leone, A., & Cavanagh, P. (2007). The 'when' pathway of the right parietal lobe. *Trends in Cognitive Science*, **11**, 204-10.

Carlson, T. A., Alvarez, G. A., Cavanagh, P. (2007). Quadrantic deficit reveals anatomical constraints on selection. *Proc Natl Acad Sci U S A.,* **104**, 13496-500.

Carter, O., & Cavanagh, P. (2007). Onset rivalry: brief presentation isolates an early independent phase of perceptual competition. *PLoS ONE*, **2**, e343.

Cavanagh, P. & VanRullen, R. (2007). La résolution de l'attention: le grain spatial et temporal de la conscience visuelle. In George Michael (ed.) *Les dimensions de l'attention visuelle*. Marseille: Solal, pp. 63-81.

Chakravarthi, R., & Cavanagh, P. (2007). Temporal properties of the polarity advantage effect in crowding. *Journal of Vision*, **7(2):11**, 1-13.

Van Rullen, R., Carlson, T., & Cavanagh, P. (2007). The blinking spotlight of attention. *Proc Natl Acad Sci U S A*., 104, 19204-19209.

Published Abstracts

Afraz, S.-R., & Cavanagh, P. (2007). Spatial limits of face processing: Evidence from face aftereffects [Abstract]. *Journal of Vision*, **7(9)**, 124a.

Aghdaee, .M., & Cavanagh, P. (2007). The role of path continuity in motion integration across space and time [Abstract]. *Journal of Vision*, **7(9)**, 395a.

Carlson, T., VanRullen, R., Hogendoorn, H., Verstraten, F., & Cavanagh, P. (2007). Distinguishing models of multifocal attention: It's a matter of time [Abstract]. *Journal of Vision*, **7(9)**, 641a.

Carter, O., & Cavanagh, P. (2007). Onset rivalry: Brief presentation isolates an early independent phase of perceptual competition [Abstract]. *Journal of Vision*, **7(9)**, 374a.

Cavanagh, P., & Holcombe, A. O. (2007). Non-retinotopic crowding [Abstract]. *Journal of Vision*, **7(9)**, 338a.

Chakravarthi, R., & Cavanagh, P. (2007). The Effect of distracters on enumeration in the periphery [Abstract]. *Journal of Vision*, **7(9)**, 913a, http://journalofvision.org/7/9/913/, doi:10.1167/7.9.913.

Chou, W.-L., & Cavanagh, P. (2007). Spatial and temporal range for nonretinotopic integration of color and motion [Abstract]. *Journal of Vision*, **7(9)**, 438a.

Pashkam, M. V., & Cavanagh, P. (2007). Effect of motion smear on perceived speed in low luminance [Abstract]. *Journal of Vision*, **7(9)**, 34a.

Pepperberg, I, Vicinay, J., & Cavanagh, P. (2007). Processing of the Mïller-Lyer illusion by a Grey Parrot (Psittacus erithacus) [Abstract]. *Journal of Vision*, **7(9)**, 601a.

VanRullen, R., Carlson, T., & Cavanagh, P. (2007). Dividing attention between multiple targets: simultaneous or sequential allocation? [Abstract]. *Journal of Vision*, **7(9)**, 642a.

VanRullen, R. & Carlson, T., & Cavanagh, P. (2007). The blinking spotlight of attention. *Perception*, **36**, ECVP Abstract Supplement.

2006

Cavanagh, P. (2006). Les licences de Fra Carnevale. *Pour la Science*, **16**, 637-643.

Ho, C. S., Paul, P. S., Asirvatham, A., Cavanagh, P., Cline, R., Giaschi, D. E. (2006). Abnormal spatial selection and tracking in children with amblyopia. *Vision Research*, **46**, 3274-83.

Anstis, S., Ito, H., & Cavanagh, P. (2006). Background stripes affect apparent speed of rotation. *Perception*, **35**, 959-964.

Shim WM, Cavanagh P. (2006). Bi-directional illusory position shifts toward the end point of apparent motion. *Vision Research*, **46**, 3214-22.

Published Abstracts

Afraz, S. R., & Cavanagh, P. (2006). Is the "face aftereffect" retinotopic or spatiotopic? [Abstract]. *Journal of Vision*, 6(6):882, 882a.

Aghdaee, S. M., & Cavanagh, P. (2006). Rate threshold for phase discrimination of flickering dots is low and decreases with eccentricity despite cortical scaling [Abstract]. *Journal of Vision*, 6(6):944, 944a.

Alvarez, G. A., & Cavanagh, P. (2006). Hemifield independence is a signature of location-based attentional filtering [Abstract]. *Journal of Vision*, 6(6):943, 943a.

Cavanagh, P., & Holcombe, A. O. (2006). Successive rivalry does not occur without attention [Abstract]. *Journal of Vision*, 6(6):818, 818a.

Chakravarthi, R., & Cavanagh, P. (2006). Hemifield independence in visual crowding [Abstract]. *Journal of Vision*, 6(6):1104, 1104a.

Giaschi, D. E., Ho, C. S., & Cavanagh P. (2006). Deficiencies of higher-order motion perception in children with amblyopia. *Perception,* **35,** ECVP Abstract Supplement.

Holcombe, A. O., & Cavanagh, P. (2006). Apparent asynchrony between the perception of color and motion: An issue of different latencies or of attention? [Abstract]. *Journal of Vision*, 6(6):1004, 1004a.

Vaziri Pashkam, M., & Cavanagh, P. (2006). Apparent speed increases at low luminance [Abstract]. *Journal of Vision*, 6(6):580, 580a.

Yoshida, T., & Cavanagh, P. (2006). Object substitution masking on the fly [Abstract]. *Journal of Vision*, 6(6):311, 311a.

2005

Alvarez, G. A., & Cavanagh, P. (2005). Independent resources for attentional tracking in the left and right visual fields. *Psychological Science*, **16**, 637-643.

Cavanagh, P., & Alvarez, G. (2005). Tracking multiple targets with multifocal attention. *Trends in Cognitive Sciences,* **9**, 349-354.

Cavanagh, P. (2005) The artist as neuroscientist. *Nature*, **434**, 301-307.

Shim, W. M., & Cavanagh, P. (2005). Attentive tracking shifts the perceived location of a nearby flash. *Vision Research*, **45**, 3253-3261.

Ostrovsky, Y., Cavanagh, P., & Sinha, P. (2005). Perceiving illumination inconsistencies in scenes. *Perception*, **34**, 1301-14.

Published Abstracts

Battelli, L., Cavanagh, P., Schomer, D., & Barton, J. S. S. Temporary bilateral deficit of transient visual attention after right inferior parietal lobe surgery. A single case study. *Journal of Vision*, *5*(8), 684a.

Cavanagh, P., Holcombe, A. Distinguishing pre-selection from post-selection processing limits using a moving window of selection. *Journal of Vision*, *5*(8), 638a.

Chakravarthi , R, & Cavanagh, P. Temporal properties of the polarity effect in crowding. *Journal of Vision*, *5*(8), 998a.

Butcher. S., & Cavanagh, P. Within-field advantage for detecting matched motion paths. *Journal of Vision*, *5*(8), 964a.

2004

Alvarez, G. A., & Cavanagh, P. (2004) The capacity of visual short-term memory is set both by visual information load and by number of objects. *Psychological Science*, **15**, 106-111.

Cavanagh, P. (2004). Attention routines and the architecture of selection. In Michael Posner (ed.), *Cognitive Neuroscience of Attention*. New York: Guilford Press, pp. 13-28.

Cavanagh, P., von Grünau, M., & Zimmerman, L. (2004). View dependence of 3D recovery from folded pictures and warped 3D faces. *IEEE Proceedings of the 2nd International Symposium on 3D Data Processing, Visualization, and Transmission*, 35-41.

Rensink, R. A., & Cavanagh, P. (2004). The influence of cast shadows on visual search. *Perception*, **33**, 1339-1358.

Shim, W. M., & Cavanagh, P. (2004).The motion-induced position shift depends on the perceived direction of bistable quartet motion. *Vision Research*, **44**, 2393-2401.

Tse, P., Intriligator, J., Rivest, J., & Cavanagh, P. (2004). Attention and the subjective expansion of time. *Perception & Psychophysics*, **66**, 1171-1189.

Published Abstracts

Alvarez, G. A., & Cavanagh, P. (2004). Independent attention resources for the left and right visual hemifields. *Journal of Vision*, **4(8)**, 29a.

Butcher, S. J., & Cavanagh, P. (2004). Within-field advantage for detecting repetitions. *Journal of Vision*, **4(8)**, 450a.

Shim, W., & Cavanagh, P. (2004). Attention shift induced by apparent motion can cause position compression. *Journal of Vision*, **4(8)**, 575a.

2003

Battelli, L., Cavanagh, P., & Thornton, I. M. (2003). Perception of biological motion in parietal patients. *Neuropsychologia*, **41**, 1808-1816.

Battelli, L., Cavanagh, P., Martini, P., & Barton, J. S. S. (2003). Bilateral deficits of transient visual attention in right parietal patients. *Brain*, **126**, 2164-2174.

Whitney, D. V., & Cavanagh, P. (2003). Motion adaptation shifts apparent position without the motion aftereffect. *Perception & Psychophysics*, **65**, 1011-1018.

Published Abstracts

Alvarez, G. A., & Cavanagh, P. (2003). Visual short-term memory capacity for orientations is lower for oriented Gabors than for oriented lines. *Journal of Vision*, **3(9)**, 25a.

Battelli, L., Cavanagh, P., & Thornton. I. M. (2003). Biological motion perception is impaired in unilateral parietal patients. *Journal of Vision*, **3(9)**, 82a.

Cavanagh, P. (2003). The *Perception* Lecture: The language of vision. *Perception*, **32** ECVP Abstract Supplement, 1.

Shim, W., & Cavanagh, P. (2003). Attentive tracking can modulate the illusory misalignment of a flash *Journal of Vision*, **3(9)**, 188a.

Rensink, R. A., & Cavanagh, P. (2003). Constraints on the rapid interpretation of cast shadows. *Journal of Vision*, **3(9)**, 633a.

2002

Cavanagh, P., & Anstis, S. (2002). The boogie woogie illusion. *Perception*, **31**, 1005-1011.

Sasaki, Y., Murakami, I., Hadjikhani, N., Dale, A., Cavanagh, P., & Tootell, R. (2002). Human brain activity during illusory visual jitter as revealed by functional magnetic resonance imaging. *Neuron*, **35**, 1147-1156.

Tripathy, S. P., & Cavanagh, P. (2002). The extent of crowding in peripheral vision does not scale with target size. *Vision Research*, **42**, 2357.

Whitney, D., & Cavanagh, P. (2002). Surrounding motion affects the perceived locations of moving stimuli. *Visual Cognition*, **9**, 139-152.

Published Abstracts

Alvarez, G., & Cavanagh, P. (2002). The capacity of visual short-term memory is set by total information load, not number of objects. *Journal of Vision*, 2(7), 273a.

Battelli, L., & Cavanagh, P. (2002). Bilateral deficit of transient visual attention in neglect. *Journal of Vision*, **2(7)**, 276a.

Cai, R. H., & Cavanagh, P. (2002). Motion interpolation of a unique feature into stimulus gaps and blind spots. Journal of Vision, **2(7)**, 30a.

Cavanagh, P., & Labianca, A. (2002). Motion of colour stimuli: position-based but velocity friendly. *Perception*, **31,** ECVP Abstract Supplement, 13.

Shim, W. M., & Cavanagh, P. (2002). Illusory displacement of flash location depends on the perceived direction of bistable quartet motion. *Journal of Vision*, **2(7)**, 260a.

Tripathy, S. P., Cavanagh, P., & Calver, R. (2002). Reduced crowding from opposite contrast polarity flanks: not filter preselection or 'pop-out'. *Perception*, **31** ECVP Abstract Supplement, 176.

2001

Battelli, L., Cavanagh, P., Intriligator, J., Tramo, M. J., Hénaff, M.-A., Michèl, F., & Barton, J. J. S. (2001) Unilateral right parietal damage leads to bilateral deficit for high-level motion. *Neuron*, 32, 985-995.

Cavanagh P. (2001). Seeing the forest but not the trees (News and Views). *Nature Neuroscience*, **4**, 673-674. (NR)

Cavanagh, P., Labianca, A. T., & Thornton, I. M. (2001). Attention-based visual routines: Sprites. *Cognition*, **80**, 47-60.

Culham, J. C., Cavanagh, P., & Kanwisher, N. G. (2001) Attention response functions: characterizing brain areas with fmri activation during parametric variations of attentional load. *Neuron,* **32**, 737-745.

Holcombe, A. O., & Cavanagh, P. (2001). Early binding of feature pairs for visual perception. *Nature Neuroscience*, **4**, 127-128.

Intriligator, J., & Cavanagh, P. (2001). The spatial resolution of visual attention. *Cognitive Psychology*, **43**, 171-216.

Murakami, I., & Cavanagh, P. (2001). Visual jitter: evidence for visual-motion-based compensation of retinal slip due to small eye movements. *Vision Research*, **41**, 173-186.

Published Abstracts

Battelli, L., Cavanagh, P., & Barton, J. (2001). High-level motion reveals two different attentional deficits following parietal damage. *Journal of Vision*, 1(3), 409a.

Bilodeau, L. & Cavanagh, P. (2001). Disintegration of shapes in peripherally viewed rotating displays. *Journal of Vision*, 1(3), 21a.

Cavanagh, P. (2001). Alhazen. The roots of unconscious inference. *Perception*, **30** ECVP Abstract Supplement, 119.

Cavanagh, P. & Barton, J.J.S. (2001). Lights from beyond the visual field are not seen. *Journal of Vision*, 1(3), 129a.

Chen, Y., Cavanagh, P., Holzman, P., & Nakayama, K. (2001). The cues for smooth pursuit eye movements are different at slow and fast motion. *Journal of Vision*, 1(3), 237a.

Paul, P.S., Giaschi, D., Cavanagh, P., & Cline, R. (2001). Attention deficits in children with anisometropic amblyopia. *Journal of Vision*, 1(3), 80a.

2000

Cavanagh, P, & Kennedy, J. M. (2000). Close Encounters: Details Veto Depth from Shadows. *Science (Letters)*, **287**, 2423-2424.

Culham, J. C., Verstraten, F. A. J., Ashida, H., & Cavanagh, P. (2000). Independent aftereffects of attention and motion. *Neuron*, **28**, 607-615.

Shioiri, S., Cavanagh, P., Miyamoto, T., & Yaguchi, H. (2000). Tracking the apparent location of targets in interpolated motion. *Vision Research*, **40**, 1365-1376.

Shioiri, S., & Cavanagh, P. (2000). Nonlinearity in color space measured by apparent motion. *Perception & Psychophysics,* 62, 1182-1190.

Tse, P., & Cavanagh, P. (2000). Chinese and Westerners see opposite apparent motions in a kanji stimulus. *Cognition*, **74**, B27-B32.

Verstraten, F. A. J., Cavanagh, P. & Labianca, A. T. (2000). Limits of attentive tracking reveal temporal properties of attention. *Vision Research*, **40**, 3651-64.

Whitney, D. V., Cavanagh, P. (2000). The position of moving objects. *Science (Technical Comments),* **289**, 1107.

Whitney, D. V., Murakami, I., & Cavanagh, P. (2000). Illusory spatial offset of a flash relative to a moving stimulus is caused by differential latencies for moving and flashed stimuli. *Vision Research*, **40**, 137-149.

Whitney, D. V., & Cavanagh, P. (2000). Motion distorts visual space: shifting the perceived position of remote stationary objects. *Nature Neuroscience*, **3**, 954-959.

Whitney, D. V., Murakami, I., & Cavanagh, P. (2000). Temporal facilitation for moving stimuli is independent of changes in direction. *Vision Research*, **40**, 3829-39.

Published Abstracts

Cavanagh. P, & Barton, J. J. S. (2000). Vision through the sclera: testing the visibility of lights from beyond the visual field. *Investigative Ophthalmology & Visual Science*, **41**, S712.

Chen, Y., Murakami, I., McPeek, R., Holzman, P., & Cavanagh, P. (2000). Smooth pursuit boosts the visibility of the target. *Investigative Ophthalmology & Visual Science*, **41**, S315.

Holcombe, A. O., & Cavanagh, P. (2000). A high-speed process for pairing features that is space-based, not object-based. *Investigative Ophthalmology & Visual Science*, **41**, S760.

Murakami, I., & Cavanagh, P. (2000). Storage, spatial frequency selectivity, and stimulus size specificity of visual jitter. *Investigative Ophthalmology & Visual Science*, **41**, S794.

Sasaki, Y., Murakami, I., Hadjikhani, N., Cavanagh, P., & Tootell, R. B. H. (2000). Neural correlates of illusory visual jitter revealed by fMRI. 4th Annual Vision Research Conference, Fort Lauderdale, FL, April 2000.

Thornton, I M, Cavanagh, P., & Labianca, A. T. (2000). The role of attention in the processing of biological motion. *Perception*, **29,** ECVP Abstract Supplement, 119.

Tripathy, S. P., & Cavanagh, P. (2000). Extent of spatial interaction does not scale with target size. *Investigative Ophthalmology & Visual Science*, **41**, S715.

Whitney, D. V., & Cavanagh, P. (2000). Motion adaptation shifts the apparent positions of remote objects. *Perception*, **29**, ECVP Abstract Supplement, 80.

Whitney, D., Cavanagh, P. (2000). Motion distorts visual space: Shifting the perceived position of remote stationary objects. *Investigative Ophthalmology & Visual Science*, **41**, S741.

1999

Cavanagh, P. (1999). The Cognitive Impenetrability of Cognition: Commentary on Pylyshyn. *Behavioral and Brian Sciences* (1999) **22**, 370-371. (NR)

Cavanagh, P., He, S., & Intriligator, J. (1999). Attentional resolution: The grain and locus of visual awareness. In C. Taddei-Ferretti and C. Musio (Eds.), *Neuronal basis and psychological aspects of consciousness*., (pp. 41-52). Singapore: World Scientific. (NR)

Cavanagh, P. (1999). Attention: Exporting vision to the mind. In C. Taddei-Ferretti and C. Musio (Eds.), *Neuronal basis and psychological aspects of consciousness*., (pp. 129-143). Singapore: World Scientific. (NR)

Cavanagh, P. (1999). Pictorial art and vision. In Robert A. Wilson and Frank C. Keil (Eds.), *MIT Encyclopedia of Cognitive Science*, (pp. 648-651) Cambridge, MA: MIT Press. (NR)

Cavanagh, P. (1999). Top-down processing in vision. In Robert A. Wilson and Frank C. Keil (Eds.), *MIT Encyclopedia of Cognitive Science*, (pp. 844-845) Cambridge, MA: MIT Press. (NR)

Seiffert, A. E., & Cavanagh, P. (1999). Position-based motion perception for color and texture stimuli: Effects of contrast and speed. *Vision Research*, **39**, 4172-4185.

Published Abstracts

Anstis, S. M., & Cavanagh, P. (1999). The boogie-woogie illusion: Perceived speed depends on contrast. *Investigative Ophthalmology & Visual Science*, **40**, S1.

Cavanagh, P. & Labianca, A. T. (1999). Smooth pursuit initiation for color targets can be based on position. *Investigative Ophthalmology & Visual Science*, **40**, S381.

Holcombe, A. O., & Cavanagh, P. (1999) The temporal resolution of visual feature binding. Paper presented at the Third Annual Vision Research Conference, Ft. Lauderdale, FL, May 1999.

Murakami, I., & Cavanagh, P. (1999). A directionally selective monocular adaptation process and a distinctive bilateral compensation process for visual jitter. *Investigative Ophthalmology & Visual Science*, **40**, S2.

Sasaki, Y., Murakami, I., Hadjikhani, N., Cavanagh, P., & Tootell, R. B. H. (1999). Brain activity during illusory visual jitter. *NeuroImage*, **9**, S857.

Seiffert, A. E., & Cavanagh, P. (1999). Serial search for texture-defined motion. *Investigative Ophthalmology & Visual Science*, **40**, S805.

Whitney, D. V., Murakami, I., & Cavanagh, P. (1999). Moving stimuli have latency advantage over flashed stimuli: evidence for a temporal facilitation mechanism. *Investigative Ophthalmology & Visual Science*, **40**, S744.

Whitney, D. V., Murakami, I., & Cavanagh, P. (1999). Persistence does not influence the perceived location of a flash relative to a moving stimulus. *Perception*, **28**, ECVP Abstract Supplement, 81.

1998

Anstis, S. M., Hatahajan, P., & Cavanagh, P. (1998). Optomotor test for wavelength sensitivity in guppyfish (Poecilia reticulata). *Vision Research*, **38**, 45-53.

Cavanagh, P., Hénaff, M.-A., Michel, F., Landis, T., Troscianko, T. Intriligator, J. (1998). Complete sparing of high-contrast color input to motion perception in cortical color blindness. *Nature Neuroscience*, **1**, 242-247.

Cavanagh, P. (1998). Attention: Exporting vision to the mind. In S. Saida and P. Cavanagh (Eds.) *Selection and integration of visual information,* (pp. 3-11). Tsukuba, Japan: STA & NIBH-T. (NR)

Culham, J. C., Brandt, S. A., Cavanagh, P., Kanwisher, N. G., Dale, A. M., & Tootell, R. B. H. (1998). Cortical fMRI activation produced by attentive tracking of moving targets. *Journal of Neurophysiology*, **80**, 2657-2670.

Culham, J. C. et al. (1998) Higher order effects. In G. Mather, F. A. J. Verstraten, and S. M. Anstis (Eds.) *The motion aftereffect: a modern perspective.* Cambridge, MA: MIT press, 85-124. (NR)

Hadjikhani, N. K., Liu, A. K., Cavanagh, P., Dale, A. M. & Tootell, R. B. H. (1998). Retinotopy and color sensitivity in human visual cortical area V8. *Nature Neuroscience*, **1**, 235-241.

Moore, C., & Cavanagh, P. (1998). Recovery of 3D volume from 2-tone images of novel objects. *Cognition*, **67**, 45-71.

Murakami, I, & Cavanagh, P. (1998). A jitter aftereffect reveals motion-based stabilization of vision. *Nature*, **395**, 798-801.

Seiffert, A. E., & Cavanagh, P. (1998). Position displacement, not velocity, is the cue to motion detection of second-order stimuli. *Vision Research*, **38**, 3569-3582.

Suzuki, S., & Cavanagh, P. (1998). A shape-contrast effect for briefly presented stimuli. *Journal of Experimental Psychology: Human Perception and Performance*, **24**, 1315-1341.

Tse, P., Cavanagh, P., & Nakayama, K. (1998). The role of parsing in high-level motion processing. In Takeo Watanabe (ed.), *High level motion processing*. (pp. 249-266), Cambridge, MA: MIT Press. (NR)

Published Abstracts

He, S., Intriligator, J., Verstraten, F. A. J., & Cavanagh, P. (1998). A slow mechanism for phase discrimination of both luminance and color flicker. *Investigative Ophthalmology & Visual Science*, **39**, S1110

Moore, C., Engel, S. A., & Cavanagh, P. (1998). Seeing what you expect to see: perceptual organization of 2-tone images of novel objects. *Investigative Ophthalmology & Visual Science*, **39**, S1113.

Murakami, I., & Cavanagh, P. (1998). A novel aftereffect: visual jitter in an unadapted static region after adaptation to dynamic random noise. *Investigative Ophthalmology & Visual Science*, **39**, S1076.

Seiffert, A. E., & Cavanagh, P. (1998). Detection of motion of texture stimuli at low speeds is qualitatively different form that at high speeds. *Investigative Ophthalmology & Visual Science*, **39**, S229.

Tootell, R. B. H., Hadjikhani, N. K., Liu, A. K., Cavanagh, P., & Dale, A. M. (1998). Color and retinotopy in human visual cortical area V8. *Investigative Ophthalmology & Visual Science*, **39**, S1129.

Wainwright, M., Cavanagh, P., & Nakayama, K. (1998). Functional benefits of adaptation: improved speed discrimination. *Investigative Ophthalmology & Visual Science*, **39**, S1076.

Whitney, D. V., Murakami, I., & Cavanagh, P. (1998). Motion extrapolation cannot account for apparent position offset of a flashed disk relative to unpredictable motion. *Investigative Ophthalmology & Visual Science*, **39**, S1075

1997

Cavanagh, P. (1997). Predicting the present. *Nature (News and Views)*, **386**, 19-21. (NR)

Chun, M. M., & Cavanagh, P. (1997). Seeing two as one: Linking apparent motion and repetition blindness. *Psychological Science*, **8**, 74-79.

He, S., Cavanagh, P., & Intriligator, J. (1997). Attentional resolution. *Trends in Cognitive Science*, **1**, 115-121.

Suzuki, S., & Cavanagh, P. (1997). Focused attention distorts visual space: An attentional repulsion effect. *Journal of Experimental Psychology: Human Perception and Performance*, **23**, 443-463.

Published Abstracts

Culham, J. C., Cavanagh, P., Kanwisher, N. G., Brandt, S., Dale, A. M., & Tootell, R. B. H. (1997). Attentive tracking of moving targets produces parietal activation revealed by functional magnetic resonance imaging. *Investigative Ophthalmology & Visual Science*, **38**, S1174.

Culham, J., Cavanagh, P., Kanwisher, N., Intriligator, J., & Nakayama, K. (1997). Varying attentional load produces different fMRI task response functions in occipitoparietal cortex and frontal eye fields. *Society of Neuroscience Abstracts*, **23**, 1119.

He, S., Cavanagh, P. & Intriligator, J. (1997) Many objects can be enumerated in afterimages when they are not crowded. *Abstracts of the Psychonomics Society (38th Annual meeting)*, **2**, 3.

He, S., Culham, J., & Cavanagh, P. (1997). Crowding affects flicker motion aftereffect more than static motion aftereffect. *Investigative Ophthalmology & Visual Science*, **38**, S380.

Intriligator, J., & Cavanagh, P. (1997). Individuation and the resolution of attention. *Investigative Ophthalmology & Visual Science*, **38**, S688.

McPeek, R. M., Verstraten, F. A. J., & Cavanagh, P. (1997). Target position, not target velocity, drives sustained smooth pursuit. *Investigative Ophthalmology & Visual Science*, **38**, S932.

Seiffert, A. E., & Cavanagh, P. (1997). Position displacement, not velocity, is the cue to motion detection of texture-defined patterns. *Investigative Ophthalmology & Visual Science*, **38**, S377.

Tse, P., Intriligator, J., & Cavanagh, P. (1997). Attention distorts the perception of time. *Investigative Ophthalmology & Visual Science*, **38**, S1151.

Wainwright, M., & Cavanagh, P. (1997). Suppression of motion after-effects by overlaid lines. *Investigative Ophthalmology & Visual Science*, **38**, S374.

1996

Cavanagh, P. (1996). Vision is getting easier every day. *Perception*, **24**, 1227-1232. (NR)

Cavanagh, P. (1996). When colours move (News and Views). *Nature*, **379**, 26. (NR)

Culham, J.C., & Cavanagh, P. (1996). Motion capture and visual attention: A reply to Ramachandran. *Vision Research*, **36**, 79-80.

Hadyuk, S., Bruck, M. & Cavanagh, P. (1996). Low-level visual processing skills of adults and children with dyslexia. *Cognitive Neuropsychology*, **13**, 975-1015.

He, S., Cavanagh, P., & Intriligator, J. (1996). Attentional resolution and the locus of awareness. *Nature*, **383**, 334-338.

Rivest, J., & Cavanagh, P. (1996). Localizing contours defined by more than one attribute. *Vision Research*, **36**, 53-66.

Watanabe, T., & Cavanagh, P. (1996). Texture laciness. *Perception*, **25**, 293-304.

West, M., Spillmann, L., Cavanagh, P., Mollon, J., & Hamlin, S. (1996). Susanne Liebmann in the critical zone. *Perception*, **25**, 1451-1495. (NR)

Published Abstracts

Cavanagh, P. (1996). Research in visual perception: The 40th millennium. *Journal Of International Psychology*, **31**, 530.1.

Cavanagh, P. (1996). Attention-based visual processes. *Journal Of International Psychology*, **31**, 336.3.

Cavanagh, P. (1996). Attention-based visual processes. *Canadian Psychology*, **37**, 59.

Cavanagh, P., & Watanabe, T. (1996). Priming object recognition with unrecognizable outlines. *Investigative Ophthalmology & Visual Science*, **37**, S193.

He, S., & Cavanagh, P. (1996). Orientation selective adaptation, but not direction selective adaptation is unaffected by blocking focused attention. *Investigative Ophthalmology & Visual Science*, **37**, S532.

Khurana, B., & Cavanagh, P., & Nijhawan, R. (1996). Are moving objects corrected or flashed objects attentionally delayed? *Investigative Ophthalmology & Visual Science*, **37**, S529.

Moore, C., & Cavanagh, P. (1996). Discriminating shadow and object regions in 2 tone images. *Investigative Ophthalmology & Visual Science*, **37**, S193.

Shioiri, S., & Cavanagh, P. (1996). Localizing the object tracked by attention. *Investigative Ophthalmology & Visual Science*, **37**, S213.

Tse, P., Cavanagh, P., & Nakayama, K. (1996). The roles of attention in shape change apparent motion. *Investigative Ophthalmology & Visual Science*, **37**, S213.

Verstraten, F.A.J., & Cavanagh, P. (1996). When attention based apparent motion perception breaks down. *Investigative Ophthalmology & Visual Science*, **37**, S467.

1995

Cavanagh, P. (1995). Is there low-level motion processing for non-luminance-based stimuli? In Thomas V. Papathomas, Charles Chubb, Andrei Gorea, and Eileen Kowler (eds.) *Early vision and beyond.* Cambridge, MA: MIT Press, 113-120. (NR)

Cavanagh, P., Saida, S., & Rivest, J. (1995). The contribution of color to motion parallax. *Vision Research*., **13**, 1871-1878.

Seltzer, S, Cavanagh, P. (1995). Enhanced displays of medical images: Evaluation of the effectiveness of color, motion and contour for detection and localization of liver lesions. *Academic Radiology*, **2**, 748-755.

Suzuki, S., & Cavanagh, P. (1995). Facial organization blocks access to low-level features: an object inferiority effect. *Journal of Experimental Psychology: Human Perception and Performance*, **21**, 901-913.

Zimmerman, D. L., Legge, G. E., & Cavanagh, P. (1995). Pictorial depth cues: A new slant. *Journal of the Optical Society of America A*, **12**, 17-26.

Published Abstracts

Cavanagh, P. (1995). A horse of a different color: Shadows have to be darker but shading does not. *Investigative Ophthalmology & Visual Science*, **36**, S184.

Culham, J. C., & Cavanagh, P. (1995). Motion aftereffects of attentive tracking Are rotation-specific but independent of position. *Investigative Ophthalmology & Visual Science*, **36**, S857.

Suzuki, S., & Cavanagh, P. (1995). A rapid sequence of two stimuli reveals nonretinotopic shape distortions. *Investigative Ophthalmology & Visual Science*, **36**, S848.

Tse, P., Cavanagh, P. & Nakayama, K. (1995). Line motion occurs after surface parsing. *Investigative Ophthalmology & Visual Science*, **36**, S417.

Watanabe, I., Cavanagh, P., & Anstis, S. M. (1995). Shaded diamonds give an illusion of brightness. *Investigative Ophthalmology & Visual Science*, **36**, S468.

1994

Arguin, M., Cavanagh, P., & Joanette, Y. (1994). Visual feature integration with an attentional deficit. *Brain and Cognition* , **24**, 44-56.

Cavanagh, P. Michel, F., Hènaff, M.-A., & Landis, T. (1994). Cortical colour blindness spares colour input to motion perception. In M. Sugishita (ed.) *New horizons in neuropsychology*. Shannon: Elsevier, 115-123. (NR)

Culham, J. C. & Cavanagh, P. (1994). Motion capture of luminance stimuli by equiluminous color gratings and by attentive tracking. *Vision Research*., **34**, 2701-2706.

Rivest, J., Cavanagh, P., & Lassonde, M. (1994). Interhemispheric depth judgement. *Neuropsychologia*, **32**, 69-76.

Wang, Q., Cavanagh, P., & Green, M. (1994). Familiarity and pop-out in visual search. *Perception & Psychophysics*, **56**, 495-500.

Published Abstracts

Cavanagh, P., Henaff, M.-A., Michel, F., & Landis, T. (1994). Cortical color blindness spares color input to motion perception. *Investigative Ophthalmology and Visual Science*, **35**, 1643.

Culham, J., & Cavanagh, P. (1994). Attentive tracking of a counterphase grating produces a motion aftereffect. *Investigative Ophthalmology and Visual Science*, **35**, 1622.

Intriligator, J., & Cavanagh, P. (1994). An asymmetrical facilitation around moving objects. *Investigative Ophthalmology and Visual Science*, **35**, 1623.

Rensink, R., & Cavanagh, P. (1994). Identification of highlights in early vision. *Investigative Ophthalmology and Visual Science*, **35**, 1623.

Rivest, J., & Cavanagh, P. (1994). Spatial interactions between color contours and between luminance contours. *Investigative Ophthalmology and Visual Science*, **35**, 2008.

Suzuki, S., & Cavanagh, P. (1994). Focused attention distorts visual space. *Investigative Ophthalmology and Visual Science*, **35**, 2081.

1993

Arguin, M., Joanette, Y., & Cavanagh, P. (1993). Visual search for feature and conjunction targets with an attention deficit. *Journal of Cognitive Neuroscience*, **5**, 436-452.

Arguin, M., Cavanagh, P., & Joanette, Y. (1993). A lateralized alerting deficit in left brain-damaged patients. *Psychobiology*, **21**, 307-323.

Cavanagh, P. (1993). The perception of form and motion. *Current Opinion in Neurobiology*, **3**, 177-182. (NR)

Hayduk, S., Bruck, M., & Cavanagh, P. (1993). Do adult dyslexics show low-level visual processing deficits? *Ann N Y Acad Sci*., 682, 351-353.

Watanabe, T., & Cavanagh, P. (1993). Transparent surfaces defined by implicit X junctions. *Vision Research*, **33**, 2339-2346.

Watanabe, T., & Cavanagh, P. (1993). Surface decomposition in subjective transparency. *Spatial Vision* , 7, 95-111. (NR)

Published Abstracts

Culham, J., & Cavanagh, P. (1993). Capture of luminance stimuli by moving equiluminous color gratings and by attentive tracking. *Investigative Ophthalmology and Visual Science*, **34**, 976.

Rensink, R., & Cavanagh, P. (1993). Processing of shadows at preattentive levels. *Investigative Ophthalmology and Visual Science*, **34**, 1288.
Suzuki, S., & Cavanagh, P. (1993). Retinotopic vs object-centered specificity of learning differs for threshold and reaction time tasks. *Investigative Ophthalmology and Visual Science*, **34**, 1233.
Wang, Q., & Cavanagh, P. (1993). Acquiring familiarity effects in visual search with Chinese characters. *Investigative Ophthalmology and Visual Science*, **34**, 1236.

1992

Cavanagh, P. (1992). Attention-based motion perception. *Science*, **257**, 1563-1565.
Cavanagh, P., Adelson, E. H., & Heard, P. (1992). Vision with equiluminant colour contrast: 2. A large-scale technique and observations. *Perception*, **21**, 219-226.
Jolicoeur, P., & Cavanagh, P. (1992). Mental rotation, physical rotation, and surface media. *Journal of Experimental Psychology: Human Perception and Performance*, **18**, 371-384.
Shioiri, S., & Cavanagh, P. (1992). Visual persistence of figures defined by relative motion. *Vision Research*, **32**, 943-951.
Shioiri, S., & Cavanagh, P. (1992). Achromatic form perception is based on luminance not brightness. *Journal of the Optical Society of America A* **9**, 1672-1681.
Watanabe, T., & Cavanagh, P. (1992). Depth capture and transparency of regions bounded by illusory, chromatic, and texture contours. *Vision Research*, **32**, 527-532.
Watanabe, T., & Cavanagh, P. (1992).The role of transparency in perceptual grouping and pattern recognition. *Perception*, **21**, 133-139.
Watanabe, T., Zimmerman, L., & Cavanagh, P. (1992).Orientation-contingent color aftereffects mediated by subjective transparent surfaces. *Perception & Psychophysics*, **52**, 161-166.

Published Abstracts

Intriligator, J., & Cavanagh, P. (1992). An object-specific attentional facilitation that does not spread to adjacent locations. *Investigative Ophthalmology and Visual Science*, **33**, 1263.
Rivest, J., & Cavanagh, P. (1992). Interattribute interactions in contour localization. *Investigative Ophthalmology and Visual Science*, **33**, 1342.
Suzuki, S., & Cavanagh, P. (1992). Facial expression as an emergent feature in visual search. *Investigative Ophthalmology and Visual Science*, **33**, 1355.
Wang, Q., & Cavanagh, P. (1992). Familiarity and pop-out in visual search. *Investigative Ophthalmology and Visual Science*, **33**, 1262.
Watanabe, T., & Cavanagh, P. (1992). Transparent surfaces defined by implicit X junctions. *Investigative Ophthalmology and Visual Science*, **33**, 706.

1991

Bruck, M., Cavanagh, P., & Ceci, S. J. (1991). Fortysomething: Recognizing faces at one's 25th reunion. *Memory & Cognition*, **19**, 221-228.
Cavanagh, P. (1991). Short-range vs long-range motion: not a valid distinction. *Spatial Vision*, **5**, 303-309.

Cavanagh, P. (1991). The contribution of color to motion. In A. Valberg and B. B. Lee (eds.) *From pigments to perception.* New York: Plenum, 151-164. (NR)

Cavanagh, P. (1991). What's up in top-down processing? In A. Gorea (ed.) *Representations of Vision: Trends and Tacit Assumptions in Vision Research*, Cambridge, UK: Cambridge University Press, 295-304. (NR)

Cavanagh, P. (1991). Vision at equiluminance. In J. J. Kulikowski, I. J. Murray, and V. Walsh (eds.) *Vision and Visual Dysfunction Volume V: Limits of Vision*. Boca Raton, FL: CRC Press, 234-250. (NR)

Cavanagh, P., & Anstis, S. M. (1991). The contribution of color to motion in normal and color-deficient observers *Vision Research*, **31**, 2109-2148.

Tyler, C. W., & Cavanagh, P. (1991). Purely chromatic perception of motion in depth: Two eyes as sensitive as one. *Perception & Psychophysics*, **49**, 53-61.

Watanabe, T., & Cavanagh, P. (1991). Texture and motion spreading, the aperture problem, and transparency. *Perception & Psychophysics*, 50, 459-464.

Published Abstracts

Arguin, M., Joanette, Y., & Cavanagh, P. (1991). Impaired visual feature integration with an attention deficit. *Third IBROWorld Congress of Neuroscience Abstracts*, P62.66. (A)

Cavanagh, P. (1991). Contribution of M and P pathways to motion. *Third IBRO World Congress of Neuroscience Abstracts*, P62.66. (A)

Cavanagh, P. (1991). No slowing for active motion perception at equiluminance. *Investigative Ophthalmology and Visual Science*, **32**, 894. (A)

Charles, E., Logothetis, N. K., & Cavanagh, P. (1991) The response of cells in area MT to stimulation of blue-sensitive cones. *Society for Neuroscience Abstracts*, **17**, 440.

Rivest, J., & Cavanagh, P. (1991). Cross media cooperation in localization of contours. *Investigative Ophthalmology and Visual Science*, **32**, 1024. (A)

Intriligator, J., Nakayama, K., & Cavanagh, P. (1991). Attention tracking of multiple moving objects at different scales. *Investigative Ophthalmology and Visual Science*, **32**, 1040. (A)

Watanabe, T., & Cavanagh, P. (1991). Transparency facilitates recognition of overlapping stimuli even for very short exposures. *Investigative Ophthalmology and Visual Science*, **32**, 1024. (A)

1990

Arguin, M., Joanette, Y., & Cavanagh, P. (1990). Comparing the cerebral hemispheres on the speed of spatial shifts of visual attention: Evidence from serial search. *Neuropsychologia*, **28**, 733-736.

Cavanagh, P., Arguin, M., & Treisman, A., (1990). Effect of surface medium on visual search for orientation and size features. *Journal of Experimental Psychology: Human Perception and Performance* **16**, 479-491.

Flanagan, P., Cavanagh, P., & Favreau, O.E. (1990). Independent orientation-selective mechanisms for the cardinal directions of colour space. *Vision Research* **30**, 796-778.

Shioiri, S., & Cavanagh, P. (1990). ISI produces reverse apparent motion. *Vision Research* **30**, 757-768.

Treisman, A., Cavanagh, P., Gregory, R. L., Gruesser, O. J., Ramachandran, V. S., & von der Heydt, R. (1990). The perception of form: Striate cortex and beyond. In

Lothar Spillman and John S. Werner (eds.) *Visual Perception: The Neurophysiological Foundations*. New York: Academic Press, pp. 273-316 (NR)

Published Abstracts

Anstis, S. M., Murasugi, C., & Cavanagh, P. (1990). Optomotor test for wavelength sensitivity in guppyfish. *Investigative Ophthalmology and Visual Science Suppl.* **31**, 110. (A)

Arguin, M., Joanette, Y., & Cavanagh, P. (1990). Serial visual search deficit following a disorder of visuo-spatial attention. *Journal of Clinical and Experimental Neuropsychology*, **12** (Supp.), 83. (A)

Arguin, M., Joanette, Y., & Cavanagh, P. (1990). A unilateral disorder of visual attention impairs feature integration. *Journal of Clinical and Experimental Neuropsychology*, **12** (Supp.), 73. (A)

Arguin, M., & Cavanagh, P. (1990). The feature integration process is serial and exhaustive. *Canadian Psychology*, **31**, 206. (A)

Cavanagh, P. (1990). An attended motion phenomenon. *Investigative Ophthalmology and Visual Science Suppl.* **31**, 172. (A)

Cavanagh, P., & Anstis, S. M. (1990). Dissociation between static and dynamic transparency. *Optics & Photonics News* **1**, A124. (A, NR)

Rivest, J., Cavanagh, P., & Saida, S. (1990). Perception of depth from motion parallax at equiluminance. *Investigative Ophthalmology and Visual Science Suppl.* **31**, 89. (A)

Watanabe, T., & Cavanagh, P. (1990). Depth capture of regions bounded by illusory, chromatic, and texture contours. *Investigative Ophthalmology and Visual Science Suppl.* **31**, 97. (A)

Zimmerman, G. L., Cavanagh, P. (1990). Slant perception at equiluminance. *Investigative Ophthalmology and Visual Science Suppl.* **31**, 411. (A)

1989

Cavanagh, P. (1989). Multiple analyses of orientation in the visual system. In Dominic Lam and Charles Gilbert (eds.) *Neural Mechanisms of Visual Perception*, Woodlands, TX: Portfolio Publishing, 261-280. (NR)

Cavanagh, P., Arguin, M., & von Grünau, M., (1989). Interattribute apparent motion. *Vision Research*, **29**, 1197-1204.

Cavanagh, P., & Leclerc, Y. (1989). Shape from shadows. *Journal of Experimental Psychology: Human Perception and Performance* **15**, 3-27.

Cavanagh, P., & Mather, G. (1989). Motion: the long and short of it. *Spatial Vision* **4**, 103-129. (NR)

Maurer, D., Lewis, T., Cavanagh, P., & Anstis, S. M. (1989). Testing the luminous efficiency of colors in babies. *Investigative Ophthalmology and Visual Science*, 297-303.

Shioiri, S., & Cavanagh, P. (1989). Saccadic suppression of low-level motion. *Vision Research*, **29**, 915-928.

Shioiri, S., & Cavanagh, P. (1989). [Classification of motion perception]. *Kogaku* **18**, 516-523. (in Japanese, NR).

Published Abstracts

Arguin, M., Cavanagh, P., & Joanette, Y. (1989). Voluntary and automatic control over spatial shifts of visual attention. *Journal of Clinical and Experimental Neuropsychology*, **11**, 358. (A)

Cavanagh, P., & von Grünau, M. (1989). 3-D objects that appear nonrigid during rotation. *Investigative Ophthalmology and Visual Science Suppl.* **30**, 263. (A)

Cavanagh, P. (1989). Chromatic axis effects in motion, size and orientation processing. *Optics News* **9**, A-76. (A, NR)

Flanagan, P., Cavanagh, P., & Crassini, B. (1989). McCollough effects for equiluminant gratings. *Investigative Ophthalmology and Visual Science Suppl.* **30**, 130. (A)

Rivest, J., Cavanagh, P., & Lassonde, M. (1989). Interhemispheric depth judgement. *Investigative Ophthalmology and Visual Science Suppl.* **30**, 253. (A)

Shioiri, S., Cavanagh, P., & Favreau, O. E. (1989). Non-linearity in color space measured by apparent motion. *Investigative Ophthalmology and Visual Science Suppl.* **30**, 130. (A)

Tyler, C. W., & Cavanagh, P. (1989). Purely chromatic stereomotion perception. *Investigative Ophthalmology and Visual Science Suppl.* **30**, 324. (A)

1988

Arguin, M., & Cavanagh, P. (1988). Parallel processing of two disjunctive targets. *Perception & Psychophysics* **44**, 22-30.

Cavanagh, P. (1988). Pathways in early vision. In Zenon Pylyshyn (ed.) *Computational processes in human vision: An interdisciplinary perspective,* Norwood, N. J.: Ablex, 254-289. (NR)

Frost, B. J., Cavanagh, P., & Morgan, B. (1988). Deep tectal cells in pigeons respond to kinematograms. *Journal of Comparative Physiology* **162**, 639-647.

Lassonde, M., Perenin, M. T., Tassinari, G., Corbetta, M., & Cavanagh, P. (1988). Central mechanisms of stereopsis in man. *Advances in the Biosciences* **70**, 95-98. (NR)

Murasugi, C. M., & Cavanagh, P. (1988). Anisotropy in the chromatic channel. *Spatial Vision*, 281-292.

Published Abstracts

Cavanagh, P. (1988). Interunit variability of equiluminance points does not mediate the contribution of color to motion. *Investigative Ophthalmology and Visual Science Suppl.* **29**, 327. (A)

Cavanagh, P., & Anstis, S. M. (1988). Red/green opponent-color input to motion at low spatial frequencies. *Neurosciences Abstracts* **14**, 456. (A)

Cavanagh, P., Peters, S. C., & von Grünau, M. (1988). Rigidity failure and its effect on the Queen. *Perception* **17**, A27. (A)

Favreau, O. E., Flanagan, P., & Cavanagh, P. (1988). Interocular transfer of color- and luminance-contingent tilt aftereffects.*Investigative Ophthalmology and Visual Science Suppl.* **29**, 399. (A)

Flanagan, P., Cavanagh, P., & Favreau, O.E. (1988). Orientation-selective mechanisms in color space. *Investigative Ophthalmology and Visual Science Suppl.* **29**, 327. (A)

Flanagan, P., Cavanagh, P., & Favreau, O.E. (1988). Perceived colour shift in equiluminant chromatic gratings: Adaptable colour-opponent channels. *Perception* **17**, A44. (A)

Tyler, C. W., & Cavanagh, P. (1988). A separate channel for chromatic motion. *Bulletin of the Psychonomics Society* **26**, 111. (A, NR).

1987

Anstis, S. M., Cavanagh, P., Maurer, D., & Lewis, T. (1987). Optokinetic technique for measuring infant's responses to color. *Applied Optics* **27**, 1510-1516.

Cavanagh, P. (1987). Reconstructing the third dimension: Interactions between color, texture, motion, binocular disparity and shape. *Computer Vision, Graphics and Image Processing* **37**, 171-195. (NR)

Cavanagh, P., Anstis, S.M., & MacLeod, D.I.A. (1987). Equiluminance: Spatial and temporal factors and the contribution of blue-sensitive cones. *Journal of the Optical Society of America A* **4**, 1428-1438.

Gaska, J.P., Pollen, D.A., & Cavanagh, P. (1987). Diversity of complex cell responses to even- and odd-symmetric luminance profiles in the visual cortex of the cat. *Experimental Brain Research* **68**, 249-259.

Ramachandran, V.S., & Cavanagh, P. (1987). Motion capture anistropy. *Vision Research* **27**, 97-106.

Published Abstracts

Cavanagh, P. (1987). Evaluating color vision with moving stimuli. *Optics News* **13**, 114. (A, NR)

Cavanagh, P., Shioiri, S., & MacLeod, D.I.A. (1987). Is the achromatic form pathway based on luminance or brightness? *Investigative Ophthalmology and Visual Science Suppl.* **28**, 362. (A)

Flanagan, P., Cavanagh, P., & Favreau, O. E. (1987). Orientation is processed in chromatic channels. *Optics News* **13**, 161. (A, NR)

Murasugi, C., & Cavanagh, P. (1987). Anistropy in the chromatic channel. *Investigative Ophthalmology and Visual Science Suppl.* **28**, 214. (A)

Shioiri, S., & Cavanagh, P. (1987). Saccadic suppression of energy-based motion. *Optics News* **13**, 150. (A, NR)

1986

Anstis, S. M., Cavanagh, P., Maurer, D., Lewis, T., MacLeod, D. I. A., Mather, G. (1986). Computer-generated screening test for colorblindness. *Color Research and Application Suppl.* **11**, S63-S66.

Cavanagh, P., & Anstis, S. M. (1986). Brightness shift in drifting ramp gratings isolates a transient mechanism. *Vision Research* **25**, 899-908.

Published Abstracts

Anstis, S. M., Cavanagh, P., Maurer, D., Lewis, T. (1986). Early maturation of luminous efficiency for colored stimuli. *Investigative Ophthalmology and Visual Science Suppl.* **27,** 264. (A)

Cavanagh, P. (1986). Distinguishing early from late visual processes. *Bulletin of the Psychonomics Society* **24**, 291. (A, NR)

Cavanagh, P., & Anstis, S.M. (1986). Do opponent-color channels contribute to motion? *Investigative Ophthalmology and Visual Science Suppl.* **27,** 291. (A)

Lassonde, M., Paquette, F., Cavanagh, P., & Favreau, O. E. (1986). Callosal agenesis and the perception of Julesz random dot stereograms. *Investigative Ophthalmology and Visual Science Suppl.* **27,** 346. (A)

1985

Cavanagh, P. (1985). Local log polar frequency analysis in the striate cortex as a basis for size and orientation invariance. In D. Rose & V. G. Dobson (eds.) *Models of the visual cortex*. London: John Wiley & Sons, 85-95. (NR)

Cavanagh, P., Boeglin, J., & Favreau, O. E. (1985). Perception of motion in equiluminous kinematograms. *Perception* **14**, 151-162.

Cavanagh, P., & Favreau, O. E. (1985). Color and luminance share a common motion pathway. *Vision Research* **25**, 1595-1601.

Mather, G., Cavanagh, P., & Anstis, S. M. (1985). A moving display which opposes short-range and long-range signals. *Perception* **14**, 163-166.

Meunier, J., & Cavanagh, P. (1985). Efficacité de la mémoire associative inhérente à la potentiation post-tétanique. *Biological Cybernetics* **52**, 159-171.

Ramachandran, V. S., & Cavanagh, P. (1985). Subjective contours capture stereopsis. *Nature* **316**, 527-530.

Zucker, S. W., & Cavanagh, P. (1985). Subjective figures and texture perception. *Spatial Vision* **1**, 131-139.

Published Abstracts

Cavanagh, P. (1985). Depth and surface inferences in line drawings. *Journal of the Optical Society of America A* **2**, P51. (A, NR)

Cavanagh, P. (1985). Subjective contours signalled by luminance, vetoed by motion or depth. *Bulletin of the Psychonomics Society* **23**, 273. (A, NR)

Cavanagh, P., & Leclerc, Y. (1985). Shadow constraints. *Investigative Ophthalmology and Visual Sciences Suppl.* **26**, 282. (A)

Favreau, O. E., Casson, E., & Cavanagh, P. (1985). Binocular interaction of spatial frequency aftereffects. *Investigative Ophthalmology and Visual Sciences Suppl.* **26**, 186. (A)

Ramachandran, V.S., & Cavanagh, P. (1985). Illusory contours capture stereopsis and apparent motion. *Bulletin of the Psychonomics Society* **23**, 281. (A, NR)

1984

Brussell, E. M., & Cavanagh, P. (1984). An anticipated threshold technique for measuring contrast sensitivity. *American Journal of Optometry and Physiological Optics* **61**, 125-126.

Cavanagh, P. (1984). Image transforms in the visual system. In P. C. Dodwell & T. Caelli (eds.) *Figural synthesis*. Hillsdale, N. J.: Lawrence Erlbaum Associates, 185-218. (NR)

Cavanagh, P., Anstis, S. M., & Mather, G. (1984). Screening for color blindness using optokinetic nystagmus. *Investigative Ophthalmology and Visual Science* **25**, 463-466.

Cavanagh, P., Tyler, C. W., & Favreau, O. E. (1984). Perceived velocity of moving chromatic gratings. *Journal of the Optical Society of America A* **1**, 893-899.

Favreau, O. E., & Cavanagh, P. (1984). Interocular transfer of a chromatic frequency shift: Temporal constraints. *Vision Research* **24**, 1799-1805.

Ménard-Buteau, C., & Cavanagh, P. (1984). Localisation de l'interférence forme/couleur au niveau perceptuel dans une tâche de type Stroop avec des stimuli-dessins. *Revue Canadienne de Psychologie* **38**, 421-439.

Pollen, D. A., Nagler, M., Daugman, J., Kronauer, R., & Cavanagh, P. (1984). Use of Gabor elementary functions to probe receptive field substructure of posterior inferotemporal neurons in the owl monkey. *Vision Research* **24**, 233-241.

Published Abstracts

Cavanagh, P., & Favreau, O. E. (1984). Transfer of a motion aftereffect from luminance to chrominance. *Investigative Ophthalmology and Visual Sciences Suppl.* **25**, 15. (A)

Frost, B. J., Morgan, B., & Cavanagh, P. (1984). Kinematograms drive deep tectal cells in pigeons. *Society for Neurosciences Abstracts* **10**(1), 574. (A)

1983

Anstis, S. M., & Cavanagh, P. (1983). A minimum motion technique for judging equiluminance. In J. D. Mollon & L. T. Sharpe (eds.) *Colour vision: Psychophysics and physiology.* London: Academic Press, 66-77. (NR)

Favreau, O. E., & Cavanagh, P. (1983). Interocular transfer of a chromatic frequency shift. *Vision Research* **23**, 951-957.

Published Abstracts

Cavanagh, P., Tyler, C. W., & Favreau, O. E. (1983). Perception of velocity in the chrominance channel. *Investigative Ophthalmology and Visual Sciences Suppl.* **24**, 284. (A)

1982

Cavanagh, P. (1982). Functional size invariance is not provided by the cortical magnification factor. *Vision Research* **22**, 1409-1413.

Published Abstracts

Pollen, D. A., Nagler, M., Daugman, J., Kronauer, R., & Cavanagh, P. (1982). Use of Gabor signals to probe receptive field substructure of inferotemporal neurons in the owl monkey. *Investigative Ophthalmology and Visual Sciences Suppl.* **23**, 282. (A)

Favreau, O. E., Cavanagh, P., & Gadoury, M. (1982). Interocular transfer of a chromatic spatial frequency shift mediated by transient equiluminous channels. *Investigative Ophthalmology and Visual Sciences Suppl.* **23**, 79. (A)

1981

Anstis, S. M., & Cavanagh, P. (1981). What goes up need not come down: Moving flickering edges give positive motion aftereffects. In J. B. Long & A. D. Baddeley (eds.) *Attention and performance IX*, 63-78. (NR)

Cavanagh, P. (1981). Size invariance: Reply to Schwartz. *Perception* **10**, 469-474.

Cavanagh, P., Brussell, E. M., & Stober, S. R. (1981). Evidence against independent processing of black and white pattern features. *Perception & Psychophysics* **29**, 423-428.

Favreau, O. E., & Cavanagh, P. (1981). Color and luminance: Independent frequency shifts. *Science* **212**, 831-832.

Published Abstracts

Favreau, O. E., Cavanagh, P., & Lepore, F. (1981). Interocular transfer of a frequency shift in the chromatic channel. *Investigative Ophthalmology and Visual Sciences Suppl.* **22**, 25. (A)

1980

Cavanagh, P., & Anstis, S. M. (1980). Visual psychophysics on the Apple II: Getting started. *Behavior Research Methods and Instrumentation* **12**, 614-626.

Cavanagh, P., & Favreau, O. E. (1980). Motion aftereffect: A global mechanism for the perception of rotation. *Perception* **9**, 175-182.

Published Abstracts

Cavanagh, P., Brussell, E. M., & Coupland, S. (1980). Spatial frequency characteristics of discrimination mechanisms. *Investigative Ophthalmology and Visual Sciences Suppl.* **21**, 44. (A)

1979

Anstis, S.M., & Cavanagh, P. (1979). Adaptation to frequency shifted auditory feedback. *Perception & Psychophysics* **26**, 449-458.

1978

Cavanagh, P. (1978). Subharmonics in adaptation to sine wave gratings. *Vision Research* **18**, 741-742.

Cavanagh, P. (1978). Size and position invariance in the visual system. *Perception* **7**, 167-177.

Gagnon, M., Cavanagh, P., & Laurencelle, L. (1978). Processing differences between memory search and foveal visual search. *Perception & Psychophysics* **23**, 258-260.

Published Abstracts

Cavanagh, P., Brussell, E.M., & Stober, S.R. (1978). Phase shift and frequency shift aftereffects may be mediated by common mechanisms. *Abstract of Program: Association for Research in Vision and Ophthalmology* , 243. (A)

Cavanagh, P., Lepore, F., & Guillemot, J.P. (1978). Théories des systèmes linéaires appliquée à la mémoire au niveau du noyau géniculé latéral du chat. *Annales de l'ACFAS* **45**, 161. (A)

Sarrazin, C., & Cavanagh, P. (1978). Mathematical model of the dynamics of synaptic transmission at the neuro-muscular junction. *Neurosciences Abstracts* **4**, 374. (A)

1977

Cavanagh, P. (1977). Locus of rotation effects in recognition. *Bulletin of the Psychonomic Society* **10**, 101-104. (NR)

Published Abstracts

Therrien, G., & Cavanagh, P. (1977). Texture vision errors analyzed by two dimensional modulation transfer functions. In Dooley, R.P. (ed). *Advances in*

Psychophysical and Visual Aspects of Image Evaluation. Rochester, N.Y.: SPSE, 10. (A)

1976

Cavanagh, P. (1976). Holographic and trace strength models of rehearsal effects in the item recognition task. *Memory and Cognition* **4**, 186-199.

1975

Cavanagh, J.P. (1975). Two classes of holographic processes realizable in the neural realm. In T. Storer & D. Winter (eds). *Formal Aspects of Cognitive Processes*. Berlin: Springer-Verlag, 14-40. (NR)

1972

Cavanagh, J.P. (1972). Relation between the immediate memory span and the memory search rate. *Psychological Review* **79**, 525-530.

Cavanagh, J.P., & Parkman, J.M. (1972). Search processes for detecting repeated items in a visual display. *Perception & Psychophysics* **11**,43-45.

1971

Cavanagh, J.P., & Parkman, J.M. (1971). A comparison of the study-recall and anticipation methods in steady state paired-associates learning. *Psychonomic Science* **22**,361-363.

Cavanagh, J.P., & Chase, W.G. (1971). The equivalence of target and nontarget processing in visual search. *Perception & Psychophysics* **9**,493-495.