

Curriculum Vitae

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EDUCATION

New York University	Ph.D.	Psychology, Cognition and Perception	2003
Boğaziçi University, Turkey	M.S.	Computer Science	1999
Boğaziçi University, Turkey	B.S.	Computer Science	1997

POSITION and WORK EXPERIENCE

Assistant Professor	University of British Columbia, Ophthalmology	2011-present
Research Associate	University of British Columbia, Ophthalmology	2008-2011
Postdoctoral Research Fellow	University of British Columbia, Ophthalmology	2006-2008
Postdoctoral Research Fellow	University of British Columbia, Psychology	2004-2006
Postdoctoral Research Fellow	University of Pennsylvania, Psychology	2003-2004

PUBLICATIONS

Yang, N., Shafai, F., **Oruc I.** (2014). Size determines whether specialized expert processes are engaged for recognition of faces. *JOV*, (accepted).

Shahangian, K., **Oruc I.** (2014). Looking at a blurry old family photo? Zoom out! *Perception*, 43, 90-98.

Dalrymple, K. A., Davies-Thompson, J., **Oruc, I.**, Handy, T., Barton J.J.S., Duchaine, B. (2014). Spontaneous perceptual facial distortions correlate with ventral occipitotemporal activity. *Neuropsychologia*, 59, 179-191.

Alonso-Prieto, E., Pancaroglu, R., Dalrymple, K. A., Barton, J., **Oruc, I.** (2013). Temporal dynamics of the face familiarity effect: Bootstrap analysis of single-subject ERP data. *Cortex*, (submitted).

Lai, J., Pancaroglu, R., **Oruc, I.**, Barton, J., Davies-Thompson, J. (2014). Neuro-anatomic correlates of the feature-saliency hierarchy in face processing: An fMRI-adaptation study. *Neuropsychologia*, 53C: 274-83.

Lai, M., **Oruc, I.**, Barton, J.J.S. (2013). The role of skin texture and facial shape in representations of age and identity. *Cortex*, 48 (1), 252-265.

Pichler, P., **Oruc, I.**, Barton, J.J.S. (2012). The nature of upright and inverted face representations: an adaptation-transfer study of configuration. *Cortex*, 48 (6), 725-736.

Lai, M, **Oruc, I.**, Barton, J.J.S. (2012). Facial age after-effects show partial identity invariance and transfer from hands to faces. *Cortex*, 48 (4), 477-486.

Oruc, I., Krigolson, O., Dalrymple, K., Nagamatsu, L., Handy, T., Barton, J.J.S. Bootstrap analysis of the single subject with event related potentials. (2011). *Cognitive Neuropsychology*, 28 (5), 322-337.

Dalrymple, K., **Oruc, I.**, Duchaine, B., Pancaroglu, R., Fox C., Iaria, G., Handy, T., Barton, J.J.S. (2011) The neuroanatomic basis of the face-selective N170 in acquired prosopagnosia: A combined ERP/fMRI study. *Neuropsychologia*, 49, 2553-2563.

Oruc, I., Barton, J.J.S. (2011). Adaptation improves discrimination of face identity. *Proceedings of the Royal Society, B*, 278, 1718: 2591-2597.

Oruc, I., Guo, X.M., Barton, J.J.S. (2011). Gender in facial representations: a contrast-based study of adaptation within and between the sexes. *PLoS ONE*, 6(1): e16251.

Oruc, I., Barton, J.J.S. (2010). Critical frequencies in the perception of letters, faces, and novel shapes: evidence for limited scale-invariance for faces. *Journal of Vision* 10(12):20, 1-12.

Oruc, I., Barton, J.J.S. (2010). A novel face aftereffect based on recognition contrast thresholds. *Vision Research*, 50, 1845-1854.

Rostamirad, S., Barton, J.J.S., **Oruc, I.** (2009) Center-surround organization of face-space: Evidence from contrast-based face-priming. *NeuroReport*, 20(13): 1177-1182.

Oruc, I., Landy, M. S. (2009) Scale dependence and channel switching in letter identification. *Journal of Vision*, 9(9):4, 1-19.

Guo, X.M., **Oruc, I.**, Barton, J.J.S. (2009) Cross-orientation transfer of adaptation for facial identity is asymmetric: a study using contrast-based recognition thresholds. *Vision Research*, 49, 2254-2260.

Fox, C.J., **Oruc, I.**, Barton, J.J.S. (2008). It doesn't matter how you feel. The facial identity aftereffect is invariant to changes in facial expression. *Journal of Vision*, 8(3):11, 1-13.

Butler, A., **Oruc, I.**, Fox, C.J., Barton, J.J.S. (2008). Factors contributing to the adaptation aftereffects of facial expression. *Brain Research*, 1191, 116-126.

Oruc, I., Sinnett, S., Bischof, W. F., Soto-Faraco, S., Lock, K., Kingstone, A. (2008). The effect of attention on the illusory capture of motion in bimodal stimuli. *Brain Research*, 1242, 200-208.

Oruc, I., Landy, M. S., Pelli, D. G. (2006). Noise masking reveals channels for second-order letters. *Vision Research*, 46, 1493-1506.

Duke, P. A., **Oruc, I.**, Qi, H., Backus, B. T. (2006). Depth aftereffects mediated by vertical disparities: Evidence for vertical disparity driven calibration of extraretinal signals in stereopsis. *Vision Research*, 46, 228-241.

Backus, B. T., **Oruc, I.** (2005). Illusory motion from change over time in the response to contrast and luminance. *Journal of Vision*, 5(11), 1055-1069.

Oruc, I., Maloney, L. T., Landy, M. S. (2003). Weighted linear cue combination with possibly correlated error. *Vision Research*, 43, 2451-2468.

Landy, M. S., **Oruc, I.** (2002). Properties of second-order spatial frequency channels. *Vision Research*, 42, 2311-2329.

Other

Oruc, I., (1999). Prediction of Learned Despair in Rats Using Artificial Neural Networks. MS. thesis. Boğaziçi University, İstanbul, Turkey.

Oruc, I., (2003). Three studies on perception of texture-defined form and depth cue combination. Ph.D. thesis. New York University, New York, USA.

Oruc, I., Barton, J.J.S. (2009). Review of ‘Visual Perception Part 2: Fundamentals of Awareness, Multi-Sensory Integration and Higher-Order Perception’ (S. Martinez-Conde, S.L. Macknik, L.M. Martinez, J. Alonso, and P.U. Tse, Eds). (2006). *Journal of Neuro-Ophthalmology*, 29(1), 83.

CONFERENCE ABSTRACTS

Oruc, I., Barton JJS. Multi-voxel pattern analysis of face and object exemplar discrimination in occipital cortex. (presented at VSS 2011).

Lai M, , **Oruc, I.,** Barton JJS. Facial age aftereffects show partial identity invariance and transfer from hands to faces. (presented at VSS 2011).

Dosani M, **Oruc, I.,,** Pancaroglu R, Barton JJS. Inter-feature transfer of face aftereffects: evidence for adaptation in whole-face representations. (presented at VSS 2011).

Barton JJS, Lai M, **Oruc, I.** The relative contribution of texture and shape to face aftereffects for identity versus age. (presented at VSS 2011).

Oruc, I., Cheung, T., Dalrymple, K., Fox C., Iaria, G., Handy, T., Barton, J.J.S. (2010). Residual face-selectivity of the N170 and M170 is related to the status of the occipital and fusiform face areas in acquired prosopagnosia. (presented at VSS 2010).

Pichler, P., **Oruc, I.,** Barton, J.J.S. (2010). The role of features and spatial relations in adaptation of facial identity. (presented at VSS 2010).

Oruc, I., Barton, J.J.S. (2009). Improved face discrimination after face adaptation. (*OSA Fall Vision Meeting, Seattle*). [Abstract]. *Journal of Vision*, 9(14):71, 71a.

Oruc, I., Guo, X.M., Barton, J.J.S. (2009). A contrast-based adaptation study of the contribution of gender to face representations. [Abstract]. *Journal of Vision*, 9(8):455, 455a.

Guo, X.M., **Oruc, I.,** Barton, J.J.S. (2009). Contrast-based adaptation shows asymmetric transfer of aftereffects between inverted and upright faces. [Abstract]. *Journal of Vision*, 9(8):535, 535a.

Oruc, I., Barton, J.J.S. (2008). Brief adaptation increases sensitivity of face recognition. [Abstract]. *Journal of Vision*, 8(6):1143, 1143a.

Rostamirad, S., **Oruc, I.,** Barton, J.J. (2008). Face space has a center-surround organization: evidence from a novel contrast-based face-adaptation technique. [Abstract]. *Journal of Vision*, 8(6):1144, 1144a.

Oruc, I., Barton, J.J.S. (2007). The effects of adaptation duration on contrast thresholds in face identification. *Perception 36 ECVF Abstract Supplement*

Oruc, I., Barton, J.J.S. (2007). Critical spatial frequencies in the perception of letters, faces, and novel stimuli. [Abstract]. *Journal of Vision*, 7(9):622, 622a.

Butler, A., **Oruc, I.,** Fox, C., Barton, J.J.S. (2007). The contribution of configuration, facial features and low-level properties to the adaptation of facial expression. [Abstract]. *Journal of Vision*, 7(9):882, 882a.

Roy, E., **Oruc, I.,** Barton, J.J.S. (2007). Within-hemifield mutual interference and repulsion in the programming of antisaccades.[Abstract]. *Journal of Vision*, 7(9):139, 139a.

Oruc, I., Landy, M. S. (2006). Letter identification: Evidence for scale dependence but not for fixed channels. [Abstract]. *Journal of Vision*, 6(6):118, 118a.

Oruc, I., Landy, M. S., Pelli, D. G. (2005). Masking reveals channels for second-order letters. *Journal of Vision*, 5(8), 183a.

Oruc, I., Duke, P. A., Qi, H., Backus, B. T. (2004). Does the vertical disparity mechanism adapt? *Journal of Vision*, 4(8), 597a.

Backus, B. T., **Oruc, I.,** (2004). Rotating snakes and the failure of motion mechanisms to compensate for early adaptation to luminance. *Journal of Vision*, 4(8), 85a.

Backus, B. T., **Oruc, I.,** (2004). Illusory motion from nonlinear response to contrast: how much does the visual system know about its own neuronal adaptation? *Journal of Vision*, 4(11), 43a.

Oruc, I., Maloney, L. T., Landy, M. S. (2002). Testing optimal gaussian cue combination models with possibly correlated depth cues. *Journal of Vision*, 2(7), 83.

Oruc, I., Maloney, L. T., Landy, M. S. (2001). Depth cue combination with correlated gaussian errors: Tests of a model. *Perception*, 30 Supp., 77.

Oruc, I., Landy, M. S. (2000). Second-order summation experiments indicate narrow 2nd-order channel bandwidth. *Investigative Ophthalmology & Visual Science*, 41, S805.

FUNDING/GRANTS

NSERC Discovery Grant (PI), Neural representations underlying visual perception of objects and faces, 2011–2016.

CFI Leaders Opportunity Fund (PI), Recognition of high-level visual form, 2014–2016.

UBC Faculty of Medicine Spring Start-up Funds Competition Award, “Brain reading” applied to high level form vision: Decoding individual exemplars in patterns of brain activity, 2011.

UBC Start-up funds, 2011.

CIHR Operating Grant (Co-Investigator), Face expression and identity processing in the occipitotemporal cortex, 2010–2015.