

Hiu-Mei (Doris) Chow

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4233, Integrated Science Complex, UMass Boston, 100 Morrissey Blvd., Boston, MA

EDUCATION

University of Massachusetts, Boston *2013/9-present*

- PhD Developmental and Brain Sciences; Advisor: Dr. Vivian Ciaramitaro

The University of Hong Kong, Hong Kong *2011/9-2013/8*

- Master of Philosophy; Advisor: Dr. Chia-huei Tseng
- Thesis title: The effect of perceptual grouping on selective attention

The University of Hong Kong, Hong Kong *2007/9-2010/12*

- Bachelor of Social Sciences – First Class Honour (Major in Psychology)
- Thesis title: The effect of emotion on attentional blink

SELECTED AWARDS/GRANTS (Awarded by merit)

Awarded by University of Massachusetts Boston

- **Office of Global Programs Student Travel Fund, 2017**
- **Graduate Student Assembly Craig R. Bollinger Memorial Research Grant, 2016**
Project title: Finding the sweet-spot for multisensory integration during infancy (US\$1500)
- **Joseph P. Healey Research Grant Program, 2014-2015**
Project title: How does attention make a sound louder: Using behavioral and neuronal imaging tools to reveal mechanisms of auditory selective attention.
Granted US\$7500, Role: Student Principal Investigator
- **Office of International and Transnational Affairs Student Travel Fund, 2014**

Awarded by University of Hong Kong

- **University Postgraduate Fellowship, 2013-2014 Entry (declined)**
HK\$70000 fellowship on top of regular postgraduate scholarship in recognition of excellent academic performance of new graduate students admitted in 2013-2014
- **Dean's Honours List, 2009-2010**
In recognition of outstanding academic achievement (top 10%) in the year
- **HKUWW Scholarship, 2009**
Awarded to students on exchange with outstanding academic performance
- **HKU Foundation Entrance Scholarship, 2007**
In recognition of academic merits of students admitted to the university under the Early Admission Scheme

Awarded by external organizations

- **Travel Support for Symposium Speakers, 2014**
10th Asia-Pacific Conference on Vision
- **Student Travel Award, 2011**
12th International Multisensory Research Forum
One of the ten best student papers selected by the abstract review committee

RESEARCH EXPERIENCE

Researcher, Living Laboratory, Museum of Science Boston 2014/10-present

- Designed and conducted experiments investigating cross-modal interactions in children and adult visitors at the Museum
- Led and trained a team of volunteers/research assistants, planned and coordinated the logistics of bringing equipment and paperwork back and forth between UMass Boston Baby Lab and the Museum of Science

Research Intern, Dr. Hsin-Ni Ho, NTT Communication Science Lab 2013/2-2013/7

- Designed and conducted experiments investigating the interaction between thermal and tactile perception and sensation in a prestigious research institute in Japan.

Research Assistant, Dr. Chia-huei Tseng, HKU 2010/5-2011/8

- Designed and conducted research related to infants (e.g. social evaluation, noise exclusion and rule-learning ability of infants) and adults (e.g. HK Peak Tram Illusion)
- Provided training and mentoring to lab research interns, including research, writing, presentation and communication skills
- Carried out lab administrative activities, like scheduling appointment, maintaining good contact with parents, organizing lab files, etc.

Student Research Assistant, Prof. G. Blowers & Dr. Tseng, HKU 2010/5-2010/8

- Conducted research on the development of Psychoanalysis in Taiwan and translated Chinese materials into English for the research project

SELECTED PUBLICATIONS

Ciaramitaro, V.M., Chow, H.M., & Eglington, L. (in press). Crossmodal attention influences auditory contrast sensitivity: Decreasing visual load improves auditory thresholds for amplitude and frequency modulated sounds. *Journal of Vision*.

Chow, H.M., Jingling, L. Tseng, C.H. (2016). Eye of origin guides attention away: An ocular singleton column impairs visual search like a collinear column. *Journal of Vision*, 16, article 12.

Tsui, A.S.M., Ma, Y.K., Ho, S.Y., Chow, H.M., Tseng, C.H. (2016). Bimodal emotion congruency is critical to preverbal infants' abstract rule learning. *Developmental Science*, 19(3), 382-393.

Chow, H.M., & Tseng, C.H. (2015). Invisible collinear structures impair search. *Consciousness & Cognition*, 31, 46-59.

Chow, H.M., Jingling, L. & Tseng, C.H. (2013). Collinear integration affects visual search at V1. *Journal of Vision*, 13(10), article 24.

Tseng, C.H., Chow, H.M., & Spillmann, L. (2013). Falling skyscrapers: When cross-modality perception of verticality fails. *Psychological Science*, 24(7), 1341-1347.

Tseng, C.H., Chow, H.M., & Ma, Y.K. (under revision). *Cross-modal correspondence gates preverbal infants' bimodal learning*.

Chow, H.M., & Ciaramitaro, V.M. (under review). "Baba" becomes rounder with age: The developmental trajectory of sound-shape correspondence.

Chow, H.M., Eid, S., Harris, D., & Ciaramitaro, V.M. (under review). *Feeling 'kiki': Development of audio-tactile sound-shape correspondences*

Chow, H.M., Guillory, S.B., & Ciaramitaro, V.M. (under review). *Why is this shape more 'baba' than the others? Factors modulating sound-shape correspondences*.

SELECTED CONFERENCE PUBLICATIONS (exclude undergraduate conferences)

*Undergraduate students mentored

Chow, H.M. & Ciaramitaro, V.M. (2017). What makes a shape /baba/ to a child versus an adult? Changing contributions from shape contour, protrusion number, and protrusion size in sound-shape correspondence. *International Multisensory Research Forum*, Nashville, USA

Briggs, D.M.*, Chow, H.M., & Ciaramitaro, V.M. (2017). The interdependence of visual salience and audiovisual synchrony on auditory contrast detection. *International Multisensory Research Forum*, Nashville, USA

Leonardo, B.*, Chow, H.M., & Ciaramitaro, V.M. (2017). Do global or local features make an abstract shape appear more /Bouba/? *International Multisensory Research Forum*, Nashville, USA

Ciaramitaro, V.M., Chow, H.M., & Eglington, L.G. (2017). Crossmodal attention alters contrast sensitivity for amplitude and frequency modulated sounds via a mechanism of contrast gain. *International Multisensory Research Forum*, Nashville, USA

Chow, H.M., Harris, D.A.*, Eid, S.*, & Ciaramitaro, V.M. (2016). Early experience alters the developmental trajectory of visual, auditory and tactile sound-shape correspondences. *Annual Meeting of Vision Science Society*, Florida.

Guillory, S.B., Chow, H.M., & Ciaramitaro, V.M. (2016). Matching a shape with a sound: Does sound-shape correspondence modulate a neuronal signature of visual shape processing? *23rd Annual Meeting of Cognitive Neuroscience Society*, New York.

Tseng, C.H., Chow, H.M., & Jingling, L. (2015). Eye-of-origin guides attention away: Search disadvantage by ocular singletons. *38th European Conference on Visual Perception*, Liverpool.

Yeung, Y.S.*, Chow, H.M., & Tseng, C.H. (2015). Information of ocular origin impairs target discrimination during visual search. *2015 Asia-Pacific Conference on Vision*, Singapore.

Chow, H.M., & Ciaramitaro, V.M. (2015). Salience affects crossmodal interactions (II): Are visual and auditory salience equally effective at switching crossmodal interactions from beneficial to detrimental? *International Multisensory Research Forum*, Pisa, Italy.

Ciaramitaro, V.M., Chow, H.M. (2015). Salience affects crossmodal interactions (I): Auditory salience switches crossmodal interactions from beneficial to detrimental. *International Multisensory Research Forum*, Pisa, Italy.

Ciaramitaro, V.M., Chow, H.M., & Williams, A. (2015). In-phase is not always best: Auditory salience reverses crossmodal influences on visual detectability. *Annual Meeting of Vision Science Society*, Florida, USA.

Tseng, C.H., Chow, H.M., Tsui, A.S.M., Ma, Y.K., Yat, D. (2014). Cross-modal integration limits preverbal infant abstract rule learning. *37th European Conference on Visual Perception*, Belgrade, Serbia.

Chow, H.M., Tsui, A.S.M., Ma, Y.K., Yat, M.Y., & Tseng, C.H. (2014). Infant cross-modal rule learning. *2014 Asia Pacific Conference on Vision*, Japan (Symposium)

Yeung, Y.S.*, Lee, M.*, Chow, H.M., Tseng, C.H. (2014). Does ocular origin of stimuli always help you find a target? It depends!. *2014 Asia Pacific Conference on Vision*, Japan.

Lee, M.*, Yeung, Y.S.*, Chow, H.M., Tseng, C.H. (2014). Eye of origin information does not always facilitate target search. *2014 Asia Pacific Conference on Vision*, Japan.

Tseng, C.H., Chow, H.M., Oxner, M., & Spillmann, L. (2014). Tilted body or tilted world? A field study of verticality misperception on a moving mountain tram. *Asia Pacific Conference on Vision*, Japan (Symposium)

Chow, H.M., Ciaramitaro, V.C., Dobkins, K.R. (2014). A salient auditory stimulus improves visual contrast sensitivity but does not improve detection speed in 3- and 6-month-olds. *International Conference on Infant Studies*, Berlin, Germany.

Chow, H.M., & Ciaramitaro, V.C. (2014). What you hear is what you see: Non-spatial visual information can hinder auditory detectability early in development. *Annual Meeting of Vision Science Society*, Florida.

Tseng, C.H., & Chow, H.M. (2014). Onset target escapes the background perceptual grouping. *Annual Meeting of Vision Science Society*, Florida.

Ciaramitaro, V.C., Chow, H.M., & Boynton, G. (2014). Within- and cross-modal attention modulate unattended visual information as revealed by the strength of visual motion aftereffects across visual contrast. *Annual Meeting of Cognitive Neuroscience Society*, Boston.

Tseng, C.H. & Chow, H.M. (2013). Invisible collinear integration impairs visual search. *Asia Pacific Conference on Vision*, Suzhou, China.

Chow, H.M. & Tseng, C.H. (2013). Collinear contour integration impairs visual search before binocular fusion. *Journal of Vision*, 13(9), 1245.

Tseng, C.H., Ma, Y.K., Chow, H.M. (2013). Bimodal Affective Stimuli Do Not Always Enhance Infant's Rule Learning: Congruency and relevance also matter. *Journal of Vision*, 13(9), 738.

Chow, H.M., Chen, S.J.C.*, Tsui, G., Chiu, P.H., & Tseng, C.H. (2012). 10-month-old infants prefer comforters, not helpers. *The 34th Annual Meeting of the Cognitive Science Society*, Sapporo.

Ma, Y.K.*, Chow, H.M., Yeung, J.*, Ho, A.W.Y., & Tseng, C.H. (2012). Social elements are not a must for preverbal infants' learning in an interactive event. *The 34th Annual Meeting of the Cognitive Science Society*, Sapporo.

Oxner, M., Chow, H.M., Zhong, C.*, Spillmann, L., & Tseng, C.H. (2012). Unraveling the Hong Kong Peak Tram Illusion. *Journal of Vision*, 12(9), 577.

Chan, W.S.*, Chow, H.M., Tan, W.J.*, Park, C.J.*, & Tseng, C.H. (2011). The effects of emotional target and mood state of participants on attentional blink. *i-Perception*, 2(4), 327.

Tsui, G., Chow, H.M., & Tseng, C.H. (2011). Noise Exclusion Ability in Infants. *i-Perception*, 2(4), 316.

Chiu, P.H., Chow, H.M., Tseng, C.H., & Spillmann, L. (2011). The Hong Kong Peak Tram Illusion. *i-Perception*, 2(4), 295.

Tsui, G.H.T., Chow, D.H.M., & Tseng, C.H. (2011). Quick CSF in preverbal infants with forced-choice preferential looking paradigm. *Journal of Vision*, 11(11), article 415.

Chow, D.H.M., Tsui, G.H.T., & Tseng, C.H. (2011). Six- to 12-month-old infants use emotional response, agent identity, and motion cues in associated learning of social events. *Journal of Vision*, 11(11), article 423.

Chow, H.M., & Tseng, C.H. (2010). Effects of emotion on attentional blink. *Vision: the Journal of the Vision Society of Japan*, 22, 76.

ACADEMIC TALKS

“Infant cross-modal learning” at Infant Vision Symposium, Asia Pacific Conference on Vision, July 2014

“Why a snake-like structure hurts visual search?” at Departmental Seminar, Department of Psychology, The University of Hong Kong, July 2013

“Adapting thermal referral illusion: Physical, Perceptual or both?” at NTT Atsugi Communication Science Laboratories, July 2013

“The Effect of Perceptual Grouping on Visual Search – an investigation with binocular display and continuous flash suppression paradigm” at NTT Atsugi Communication Science Laboratories, February 2013

“Vision and body posture jointly contribute to a new real-life illusion of building tilt on the Hong Kong Peak Tram” (Authors: Chow, H.M., Oxner, M., Zhong, C.*, Spillmann, L., & Tseng, C.H) at the 16th Conference on Attention and Perception: Perceptual Organization and Grouping, Taiwan, June 2012

“A multi-sensory illusion: Hong Kong Peak Tram Illusion (II) – Subjective vertical.” (Authors: Chow, H.M., Chiu, P-H., Tseng, C.H., & Spillmann, L.) at International Multisensory Research Forum Student Award Talk, Japan, October 2011

“Preverbal infants use object features and motion cues in social learning.” (Authors: Chow, H.M., Tsui, G., & Tseng, C.H.) at Asia Pacific Conference on Vision, July 2011.

TEACHING TRAINING & EXPERIENCE

At University of Massachusetts Boston

- **Graduate Teaching Certification Program** (ongoing)
- **Osher Lifelong Learning Institute**
 - **Brownbag facilitator**, “When aging is stealing your senses away: Why, How and Ways to stop (2015 Fall, 2016 Fall)
 - **5-week course facilitator**, “Understanding the world with different senses” (2015 Spring), “Understanding how your senses work” (2016 Spring)
- **Department of Psychology**
 - **Instructor of record, Perception** (2016 Fall, 2017 Summer)
 - **Tutor, Statistics** (Dr. Laurel Wainwright) (2014 Fall, 2015 Spring)
 - **Teaching Assistant, Learning and Memory** (Dr. V. Ciaramitaro) (2013 Fall)
 - **Substitute Lecturer**, “Clinical Perspective of Instrumental Conditioning”, **Learning and Memory** (Dr. V. Ciaramitaro) (2013 Fall)
 - **Guest Lecturer**, “Moral Development”, **Cognitive Development** (Dr. V. Ciaramitaro) (2014 Spring)

At University of Hong Kong

- **Certificate of Teaching and Learning in Higher Education** (completed 2011 Fall)
- **Department of Psychology**
 - **Teaching Assistant, Introduction to Psychology** (Dr. CH Tseng) (2012 Fall)
 - **Teaching Assistant, Cognitive Psychology** (Prof. W Hayward) (2012 Spring)

PROFESSIONAL SERVICES

Community Scientific Outreach

- **Interpreter^{#*}**, Living Laboratory, Museum of Science Boston 2014/10-present
- **Coordinator[#] & Interpreter^{*}**, UMB Baby Lab’s participation in Cambridge Science Festival 2017 Spring
- **Interpreter^{*}**, Museum of Science Health Fair: Brain Works 2017 Spring
- **Baby Lab Tour Guide & Demonstrator**, UMB Neuroscience Club Brain Awareness Week high school outreach 2016 Spring
- **Interpreter^{*}**, Museum of Science High School Science: Your changing brain 2016 Spring
- **Speaker on “Consciousness”**, UMB Neuroscience Club Brain Awareness Week high school outreach 2015 Spring

Professional Service within University of Massachusetts Boston

- **Treasurer & Event Coordinator[#]**, Psychology Connections Committee 2014/9-2015/5
- **Undergraduate Mentor**, Psychology Connections Committee 2013/9-2016/12
- **Advisor & Proctor**, Psychology Department 2014/1-2014/5

[#] involves leadership

^{*} performs interactive demonstrations of psychological phenomena and engages patrons in discussion related to scientific thinking like setting and testing hypotheses