Hörmetjan Yiltiz

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Education Background

Department of Psychology, Peking University **Beijing**
B.S. in Psychology *2010–2014*
Key Major Courses: Cognitive Psychology, Experimental Psychology, Psychological Assessment, Social Cognition, Neuropsychology, Functional Anatomy of Central Nervous System, General Biology, Engineering Psychology;
Quantitative Cources: Psychological Statistics, Data Structures and Algorithms, Introduction to Computation, Probability Theory and Statistics, Advanced Mathematics, Linear Algebra, Psychological research method using Matlab.

Areas of Research Interest

Affective computing, pattern-recognition, face perception, decision-making, biological motions, fMRI, HCI.

Experience

Academic

Center for Brain and Cognitive Sciences, Peking University **Beijing**
Undergraduate thesis, supervised by Prof. Lihan Chen, clh20000@gmail.com *2014–Present*
Investigated the overall direction perception of point light walkers and circular scattered dots with task-irrelevant face stimuli as background, which have three levels (angry, neutral or happy) of emotional valences and the role of perception style in this process. Specific methods are similar to my undergraduate research. Found that the overall direction perception of walkers showed a facing away effect, while a facing away effect was found for circular dots. Also, higher interpersonal reactivity influenced the directional perception of walkers more easily when a positive face valence background was presented. Subjects with higher social anxiety demonstrated a stronger facing bias than did the group with lower social anxiety. This pattern was not observed with random dot stimuli (without biological meaning). Overall, the data showed that perception of ambiguous walkers could be resolved by tactile input and modulated by higher social cognitive styles (empathy and social anxiety). Research hours: 400h

Multisensory Research Lab, Department of Psychology, Peking University **Beijing**
Undergraduate thesis, supervised by Prof. Lihan Chen, clh20000@gmail.com *2013–2014*
Simulated the feedback of point light walker's visual footfall, to investigate the role of this the tactile input in resolving directional depth (inward or outward) perception of ambiguous walkers in binocular rivalry through stereoscope, while the feedback is slightly alteredmodulated in temporal structure. Two different colored walkers were presented on each side of the screen slightly tilted symmetrically along azimuthal axis and therefore triggered depth perception. Tactile stimuli were presented on each corresponding ankles. Social anxiety level for each participant was assessed. Data showed direction of the dominant apparent motion corresponding to the different temporal structure of tactile stimuli influences that of walkers, and that the effect is stronger in observers with high empathy concern level. Research hours: 1000h

Key Laboratory of Noise and Vibration Research, Institute of Acoustics, Chinese Academy of Sciences **Bei**
Lab Assistant, supervised by Prof. Ming Bao, baoming@mail.ioa.ac.cn *2012–*
Collaboratively established Auditory Localization Lab, mainly responsible for psychophysical configurations and orderings for required hardware. Specifically, provided desired engineering parameters for the framework, speakers, chips etc.; selected and ordered high frequency professional monitor, laser pointer, LEDs, high precision potentiometer etc.

Center for Brain and Cognitive Sciences, Peking University **Beijing**
Beijing Innovation Projects (independent project), supervised by Prof. Lihan Chen, clh20000@gmail.com2012–2013
Two different colored point light walkers with opposite local walking directions (left or right) were presented on the center of the screen simultaneously. Walkers were masked by grey dynamic random noise dots and were projected through anachrome optical diopter glasses. Tactile stimuli simulating the visual footfall of walkers were presented on participant's corresponding index finger. They reported perceived dominant direction of visual walker with two pedal switch. Also tested while walkers were inverted. Found that task-irrelevant tactile stimuli could resolve binocular rivalry between ambiguous walkers under mask for upright walkers, suggesting the presence of tactile input effects high-level processing in visual modality. Research hours: 800h

International Meetings

Annual Meeting – Vision Science Society 2013 (VSS 2013) **Naples, Florida**
Abstract and poster for the meeting, supervised by Prof. Lihan Chen, clh20000@gmail.com *May, 2013*
Title: Tactile inputs resolve the ambiguous perception of biological point light walkers. doi: 10.1167/13.9.190

Annual Meeting – The 9th Asia-Pacific Conference on Vision (APCV 2013) **Suzhou, Jiangsu**
Poster presentation, supervised by Prof. Lihan Chen, clh20000@gmail.com *July, 2013*
Title: Tactile temporal groupings bias perception of ambiguous point light walkers. doi: 10.1002/pchj.32

The 23th World Philosophy Congress (23th WCP) **Athens, Greece**
The Secretary-General, Delegation of Peking University for 23th WCP *Aug, 2013*
Responsible for official business, paper submission, publicity and socializing with related participants.

Vocational

Xinjiang Education Institute **Beijing**
Teacher (Developmental Psychology), hired by Amangül, 542398786@qq.com *July – Sept, 2014*

Beijing Huilongguan (Psychiatric) Hospital **Beijing**
Intern, supervised by Prof. Mingyi Qian, qmy@pku.edu.cn *May, 2013*

Weixiuyuan Kindergarten & Pei–Chi School for Mentally Retarded Children **Beijing**
Intern, supervised by Prof. Yanjie Su, yjsu@pku.edu.cn *Nov, 2012*

Honors & Awards

2012 – 2014, each year: Awards for Outstanding Campus Social Activities.

2010 – 2014, each year: National Scholarship for College Students.

2013: Best Translator of The Year by *National Literature* for translating **The Old Man and the Sea** to Uyghur.

2011: Awards for Outstanding Class Leader.

Languages & Standardized Tests

Uyghur: First language *Native, orally fluent, academic competent*

Mandarin: Second language *Native, orally fluent, academic competent*

English: Foreign language *orally fluent, academic competent*

- TOEFL – 109 (Reading 29, Listening 30, Speaking 23, Writing 27) Oct 2014.
- GRE – 325 (Verbal 158, 78%; Quantitative 164 ,90%; Analytically Writing 3.0, 15%) Oct 2014.

Arabic: Foreign language *Basic words, phrases and daily communication*

Computer Skills & Projects

Numerical: Proficient at MATLAB® & Python for experimental design, visualization, data cleansing & analysis, pattern recognition, probabilistic models, digital analog I/O; also at R & SPSS for statistics.

OS: Proficient at Linux & Windows for OS administration, networking and database management

(MySQL).

Misc: Familiar with LaTeX, Endnote for academic writing, and Lisp for optimization & pattern recognition.

Projects

Point Light Walkers: An open source MATLAB® toolbox for biological motion research providing:
https://github.com/hyiltiz/PLW

- Various straightforward psychophysics experimental design;
- 4 dimensional data transformation representing biological motion animation in 3D space;
- Visual, auditory and tactile simulation with high precision response capturing;
- Semi-automated data cleansing and data analysis (ANOVA, MAVONA, rANOVA and more);
- Easy producing various academic plots for publishing or presentation.

QuiCK Customizable K(q)uestionnaire: An open source MATLAB® toolbox for social survey providing:
https://github.com/hyiltiz/QuiCK

- Several ready-to-use basic structures as templates with customizable instructions;
- Support for multiple choice questions with several and/or several answers with reaction time capturing;
- Seamless integration with psychophysics experiments using Psychtoolbox library;
- Automatic encoding to generate the result for each sub-scale.