

Jong-Tsun Huang (黃榮村), University Professor, China Medical University, Taiwan

EDUCATION

- 1965 - 1969 B.S. in Psychology, National Taiwan University
1970 - 1972 M.S. in Psychology, National Taiwan University
1972 - 1976 Ph.D. in Experimental Psychology, National Taiwan University

RESEARCH & PROFESSIONAL EXPERIENCES

- 1982 - 1983 Visiting Scholar at Harvard University, Carnegie-Mellon University, St. Louis University, and UCLA
- 1983 - 2000 Professor, Department of Psychology, National Taiwan University
- 1984 - 1994 Research Fellow, Academia Sinica
- 1988 - 1991 Editor in Chief, Chinese Journal of Psychology
- 1992 - 1994 President, Taiwanese Psychological Association
- 1993 - 1995 Chairperson, Department of Psychology, National Taiwan University
President, Taipei Society
- 1994 - 1996 Member, Council on Education Reform in the Cabinet
- 1995 - 1996 Chairperson, Center for Teacher Education, NTU
- 1996 - 1999 Director General, Division of Humanities and Social Sciences, National Science Council
- 1998 - 2000 President, Y. T. Lee Foundation for Science Education
- 2000 - 2002 Minister without Portfolio
Executive Director, Commission for 921 Earthquake Post-Disaster Recovery in the Cabinet
- 2002 - 2004 Minister, Ministry of Education
- 2004 - 2005 University Professor, Tamkang University
- 2005 - 2011 President, Foundation for the Advancement of Private Schools
President, Taiwan Association of University General Education
- 2005 - 2014 President, China Medical University (Taiwan)
- 2012 - President, Taiwan Acoustical Association
- 2013 - Editor in Chief, Health and Society: A Journal for Dialogue
- 2014 - University Professor, Graduate Institute of Neural and Cognitive Sciences, China Medical University (Taiwan) ; President, Taiwan Association for the Education of Chinese Medicine ; Member,

2014- Academia Sinica Council
President, Higher Education Evaluation & Accreditation Council of
Taiwan (HEEACT)

Professional Experiences and Merits

- Member, American Psychological Association
- Member of ARVO, NYAS, and AAAS
- President, Taiwan Psychological Association
- Executive Board Member, Taiwan Acoustical Association
- President, Taiwan Acoustical Association (2012 ~)
- President, Taipei Society
- President, Y. T. Lee Foundation for Science Education
- Consultant, Aviation Medical Center, Civil Aeronautical Administration
- Member, Committee for Environmental Impact Assessment, Environmental Protection Agency
- Member, Council on Education Reform in the Cabinet
- Advisory Board Member, Neurobiology and Cognitive Science Center, National Taiwan University
- Advisory Board Member on the Humanities and Social Sciences, National Science Council
- Executive Board Member, Academic Review Committee, Ministry of Education
- President, Taiwan Association of University General Education
- President, Foundation for the Advancement of Private Schools (2005-2011)
- Co-Chair (with Allen Hounq), Local Organizing Committee, 12th Annual Meeting of the Association for the Scientific Study of Consciousness (ASSC 12), June 19-22, 2008, Taipei.
- Co-Chair (with Chien-Chung Chen), Organizing Committee, 2010 Asia-Pacific Conference on Vision, July 23-26, 2010, Taipei.
- Editor-in-Chief, Chinese Journal of Psychology
- Editor-in-Chief, Health and Society: A Journal for Dialogue (2013 ~)
- Topic Editors (with YC Chiu, CH Lin, and JR Duan), Frontiers in Psychology (Iowa Gambling Task (IGT): Twenty Years After) (2013 ~)
- Committee Member of Presidential Science Award, Presidential Cultural Award, and Science Committee in the Cabinet

- Council on Academic Affairs, Ministry of Education (2008-)
- Council on Higher Education, Ministry of Education (2015-)
- Member, Academia Sinica Council (2014-)
- Distinguished Alumni, National Taiwan University (2013)
- Medal of the First-Degree in Education (2014)

A Description of Published Research

The series of studies focus on two fundamental aspects of human cognitive functions: Processing Mechanism of Visual Perception and Decision and Choice Behavior. The research paradigm adopted a behavioral experimentation by incorporating with a computational approach. The following is a brief description of what have been done over the decades with a recent emphasis on the rationality and emotionality issues in decision and choice behavior.

A. Processing Mechanism of Visual Perception

1. Chinese character recognition process. Exemplar studies are listed as follows: Time-dependent separability hypothesis in the association of Chinese characters, perceptual separability and cohesive processes in reading Chinese words, visual integration process in recognizing fragmented Chinese characters, component migration in Chinese characters, a test of Adaptive Resonance Theory and Carpenter/Grossberg Classifier in Chinese character recognition, from unit to gestalt: perceptual dynamics in recognizing Chinese characters, character information extraction through haptic and visual search, determination of access-route duality and temporal priority of phonological recoding, the effect of phase information and Fourier components in character recognition.
2. Stereopsis and multi-channel interaction in vision. Exemplar studies: Stereoacuity measurement in depth perception, Bender-Gestalt response distortion among schizophrenics, laser experiments on false-target problem, sampling algorithm in contour finding, cooperative algorithm in human stereoscopic processing, interactive filling-in process in the emergence of illusory contour, effects of spatial frequency analysis in separating figure from ground under binocular fusion, effects of boundary and binocularity on the emergence of illusory color, monocular and binocular boundary cues in stereo matching, the interaction of the functional multichannel of human visual system, a stereo-finding algorithm based on an eye-movement-driven disparity-tuning strategy, a resolution of time-paradox in apparent motion,

monocular and binocular behavior around the blind spot, the involvement of superior frontal gyri in perceiving bistability of binocular rivalry and ambiguous figure, the effect of global diagnosticity and complexity on object recognition.

B. Decision and Choice Behavior

1. General mechanisms in decision and choice. Exemplar Studies: Parametric properties and their reduction in human conservatism, cross-cultural comparison on the attributes of intelligent behavior, the fallibility and its reduction in reasoning, a dynamic-theoretic analysis of environmental discontent, streamlining of ambiguity effect in decisional process, the isolation effect in prospect theory.
2. Rationality and emotionality in decision and choice. Exemplar studies: The effect of long-term outcome and gain-loss frequency in the Iowa Gambling Task, insensitivity to expected values in a dynamically-uncertain gamble, human consciousness in an uncertain gamble, a behavioral decision analysis in educational debates, a test of the effect of rationality and emotionality on Somatic Marker Hypothesis.

Selected Recent Publications and Presentations (2008-)

1. Chiu, Y. C., Lin, C. H., *Huang, J. T., Lin, S., Lee, P.L., & Hsieh, J. C. (2008). Immediate gain is long-term loss: Are there foresighted decision makers in the Iowa Gambling Task? *Behavioral and Brain Functions*, 4(13), 1-10.
2. Lin, C. H. Chiu, Y. C., *Huang, J. T. (2009). Gain-loss frequency and final outcome in the Soochow Gambling Task: A reassessment. *Behavioral and Brain Functions*, 5(45), 1-9.
3. Huang, J. T. (2009). The Collective Memory of Taiwan 921 Earthquake. Taipei : Ink Press.
4. Huang, J. T., Tang, D. L., Yuan, J. C., Huang, S. L., & Sakurai, S. (2011). The interaction of low-level computation and high-level modulation in human stereopsis. *Chinese Journal of Psychology*, 53:1, 1-20.
5. Huang, J. T., Chen, L., Yeh, S. L. (2012). Introduction to the Special Issue: Highlights from the 2010 Cross-Strait Forum on the Joint Development of Cognitive Science Studies. *Chinese Journal of Psychology*, 54:1, 27-30.

6. Chiu, Y.C., Lin, C.H.*, & Huang, J.T.* (2012). Prominent deck B phenomenon: Are decision-makers sensitive to long-term outcome in the Iowa Gambling Task? In A.E. Cavanna (Ed.), Psychology of Gambling: New Research, Chapter 7, 93-118. New York: Nova.
7. Yeh, S. L., & Huang, J. T. (2013). Special Issue: The core and key transformation of cognitive studies in Taiwan. *Chinese Journal of Psychology*, 55(3), 1-3.
8. Huang, J. T. (2013). From conditioning to conditional reasoning (in Chinese). *Chinese Journal of Psychology*, 55(3), 245-254.
9. Wang, M. Y., Yeh, Y. Y., & Huang, J. T. (2013). The applications of cognitive psychology in Taiwan: From cognitive research to human-centered design in the context of emerging technology (in Chinese). *Chinese Journal of Psychology*, 55(3), 381-404.
10. Huang, J.T. (2014). University Nurturing and Its Rebels. Taipei : Ink Press.
11. Huang, J.T. (2015). An Annotated Translation and Critical Reappraisal of Eric R. Kandel's (2012) 《The Age of Insight: The Quest to Understand the Unconscious in Art, Mind, and Brain, from Vienna 1900 to the Present》, New York: Random House. (To be published)
12. Lin, C. H., Chiu, Y. C., & Huang, J. T. (2008). Reexamining the effect of long-term outcome and gain-loss frequency: From unconsciousness to consciousness. Paper presented at the 12th Annual Meeting of the Association for the Scientific Study of Consciousness (ASSC), June 19-22, Taipei, Taiwan.
13. Huang, J. T. (2008). A summary report on the recovery issues following 921Chi-Chi earthquake. Keynote speech at the Workshop on Large-Scale Disaster Recovery in APEC, September 22-25, Taipei, Taiwan.
14. Huang, J. T. (2009). The collective memory of a century event. Keynote speech presented at the International Conference in Commemoration of the 10th Anniversary of the 1999 Chi-Chi Earthquake, September 17-21, Taipei, Taiwan.
15. Huang, J.T., Tang, D. L. (2010). Operating Characteristics of Blind-Spot Completion. Paper presented at the Asia-Pacific Conference on Vision (APCV), July 23-26, Taipei, Taiwan. (Also appeared in Vision, 22, 72)
16. Huang, J. T. (2010). When uncertainty prevails: The role of reason and emotion in decision making. Plenary speech at the 7th International Conference on Cognitive Science (ICCS 2010), August 17-20, Beijing, China.
17. Chiu, Y.C., Lin, Y.K., Song, T. J., Huang, J.T., & Lin, C.H. (2011). How black swans dance: The consecutive effect in the Soochow Gambling Task. Paper presented at the Neuroeconomics Conference, Evanston, Illinois, USA.

18. Chiu, Y.C., Song, T. J., Lin, Y.K., Huang, J.T., & Lin, C.H. (2011). Is skin conductance response combined Iowa Gambling Task an appropriate index for the Somatic Marker Hypothesis? Paper presented at the Neuroeconomics Conference, Evanston, Illinois, USA.
19. Huang, J. T. (2012). Between Freudian Dream Theory and the Modern Science of Mind : Incommensurability and Its Resolution. Paper presented at Incommensurability 50, June 1, National Taiwan University, Taipei, Taiwan.
20. Huang, J.T., Tang, D.L., Lin, L., & Yuan, J.C. (2012). The effect of Chinese character background on the formation of illusory contour in depth. Paper presented at the 14th ICPEAL, October 26-28, Nagoya University, Japan.
21. Huang, J, T. (2012). A reappraisal on the detection of topological invariants and the precedence of topological properties. Paper presented at the 30th Anniversary Conference on the Theory of Topological Perception, November 12, Institute of Biophysics, Chinese Academy of Sciences, Beijing, China.
22. Huang, J. T. (2015). The changing role of quality assurance agencies in East Asia in response to low fertility rate: Taiwan experience. Paper presented at the 2015 INQAAHE (International Network for Quality Assurance Agencies in Education) Conference, March 30- April 3, Chicago, Illinois, USA.