Education

Ph.D. (1981), Interdisciplinary studies (Mathematics, Economics, and Management Science), *University of British Columbia* (Committee: KR MacCrimmon (Chair), S Brumelle, I Diewert, P Greenwood, D Kahneman)
M.A. (1977), Mathematics, *Claremont Graduate University*Physics major (1975-1976), *Harvey Mudd College*

Mathematics major (1973-1975), University of London (External)

Research Interests

Decision theory, behavioral, biological and experimental economics, decision genomics

Publications (*indicates corresponding authorship)

Since 2010

- 1. Chew SH, Liu X, and Salvo A (2021), "The Adversity-Hope Hypothesis: Air Pollution Raises Lottery Demand in China", Journal of Risk and Uncertainty (forthcoming)
- 2. Does haze cloud decision making? A natural laboratory experiment 128, Number 10
- 3. Chew SH, Huang W, and Li X (2021), "Does Haze Cloud Decision Making", *Journal of Economic Behavior and Organization*, 182: 132-161
- 4. Journal of Economic Behavior & Organization
- 5. Chew SH, Huang W, and Zhao XJ (2020), "Motivated false memory", *Journal of Political Economy* 128: 3913-3939
- 6. Chark, R, Chew SH, Zhong S (2020), "Individual Longshot Preferences", *Journal of the European Economic Association* (April)
- 7. Chew SH and Wang W (2020), "On the robustness of indeterminacy in subjective probability", *Economics Letters* 188.
- 8. Tolomeo S, Chiao B, Lei Z, Chew SH, Ebstein RP (2020), " A Novel Role of CD38 and Oxytocin as Tandem Molecular Moderators of Human Social Behavior" *Neuroscience and Behavioral Reviews* 115: 251-272
- 9. Yi H, ... Chew SH, ... JP Gouin (2019) "Successful aging, cognitive function, socioeconomic status, and leukocyte telomere length," *Psychoneuroendocrinology* 103
- 10. Chew SH, Ratchford M, Sagi J (2018), "You Need to Recognise Ambiguity to Avoid It, *Economic Journal* 128: 2480–506
- 11. Zhong S, Shalev I, Koh D, Ebstein RP, Chew SH (2018), "Stress and Competitiveness", *International Economic Review* 59: 1263-1281
- 12. Chew SH, Yi JJ, Zhang JS, Zhong S (2017), "Risk Aversion and Son preference: Experimental Evidence from Chinese Twin Parents", *Management Science*
- 13. Chew SH, Miao B, Zhong S (2017), "Partial Ambiguity" Econometrica 85: 1239-1260
- 14. Yim OS, Zhang X, Shalev I, Monakhov M, S Zhong, Hsu M, Chew SH*, Lai PS, and Ebstein RP (2016), "Delay Discounting, Genetic Sensitivity, and Leukocyte Telomere Length", *Proceedings of the National Academy of Sciences*, Vol. 113 no. 10, 2780 – 2785
- 15. Chew SH, Yi JJ, Zhang JS, Zhong S (2016), "Education and Anomalies in Decision Making: Experimental Evidence from Chinese Adult Twins" *Journal of Risk and Uncertainty*, 53: 163–200.
- 16. Shen, Q., Teo M., Winter E., Hart E., Chew S. H.*, Ebstein R. P. (2016), "To Cheat or Not To Cheat: Tryptophan Hydroxylase 2 SNP Variants Contribute to Dishonest Behavior" Behavior Frontiers in Behavioral Neuroscience 10 (82).

- 17. Zhong S, R Chark, Hsu M, Chew SH* (2016), "Computational Substrates of Social Norm Enforcement by Unaffected Third Parties", *Neuroimage* 129: 95 –104
- 18. Ebstein RP, M Monakhov, YF Lu, Y Jiang, PS Lai, Chew SH* (2015), "Association between the dopamine D4 receptor gene exon III variable number of tandem repeats and political attitudes in female Han Chinese" *Proceedings of the Royal Society B: Biological Sciences* 282.
- 19. Chark R, Chew SH, and Zhong S (2015) "Extended Present Bias: A Direct Experimental Test" *Theory and Decision* 79
- 20. Chark R, Chew SH (2015) "A Neuroimaging Study of Strategic Uncertainty" *Journal of Risk and Uncertainty* Vol. 105, no. 7, 2272 2286.
- 21. Weisman O, Pelphrey KA, Leckman JF, Feldman R, Lu Y, Chong A, Chen Y, Monakhov M, Chew SH*, Ebstein RP (2015), "The association between 2D:4D ratio and cognitive empathy is contingent on a common polymorphism in the oxytocin receptor gene (OXTR rs53576)" *Psychoneuroendocrinology* 58, 23 32
- 22. Jiang YS, · R Bachner-Melman · Chew SH*· RP Ebstein (2015), "Dopamine D4 Receptor Gene and Religious Affiliation Correlate with Dictator Game Altruism in Males and not Females: Evidence for Gender-sensitive Gene x Culture Interaction" *Frontiers in Neuroscience*, Vol 9
- 23. Ebstein, RP.; Monakhov, M; Lai, PS; Chew, SH* (2014), "CD38 Gene Expression and Human Personality Traits: Inverse Association with Novelty Seeking" *Messenger* 3: 72 – 77(6)
- 24. Set, E, Saez I, Zhu L, Houser DE, Myung N, Zhong S, Ebstein RP, Chew SH,* and Hsu M, (2014) Dissociable contribution of prefrontal and striatal dopaminergic genes to learning in economic games, *Proceedings of the National Academy of Science* 111: 9615 620
- 25. De Dreu CKW, ..., Chew SH, ..., Shamay-Tsoory SG (2013), Oxytonergic circuitry sustains and enables creative cognition in humans. *Social Cognitive and Affective Neuroscience*
- 26. Chew SH, Ebstein RP, Zhong S (2013), Sex Hormone Genes and Gender Difference in Ultimatum Game: Experimental Evidence from China and Israel, *Journal of Economic Behavior & Organization*, 28 42
- 27. Jiang Y, Chew SH*, Ebstein RP (2013), The role of D4 receptor gene exon III polymorphisms in shaping human altruism and prosocial behavior. *Frontiers in Human Neuroscience*
- 28. Chew SH, Ebstein RP, Zhong S (2012), Ambiguity aversion and familiarity bias: Evidence from behavioral and gene association studies, *Journal of Risk and Uncertainty* 44: 1 18
- 29. Chew SH and J. S. Sagi (2012), "An Inequality Measure for Stochastic Allocations", Journal of Economic Theory 147, 1517 – 1544
- 30. Zhong S, Chark R, Ebstein RP, Chew SH , (2012). "Imaging Genomics for Utility of Risks over Gains and Losses" *NeuroImage*
- 31. Zhong S, Monakhov M, Mok HP, Tong T, Lai PS, Chew SH*, Ebstein RP (2012), U-Shaped Relation between Plasma Oxytocin Levels and Behavior in the Trust Game. *PLoS ONE* 7(12): e51095.
- 32. Zhong S, S Israel, I Shalev, H Xue, Ebstein R, and Chew SH* (2010), "Dopamine D4 Receptor Gene Associated with Fairness Preference in Ultimatum Game", *PLoS ONE* 5(11): e13765
- 33. Ebstein R, S Israel, Chew SH, Zhong S, A Knafo (2010), "Genetics of Human Social Behavior", *Neuron* 65 (6): 831 844.

<u> 2000 – 2009</u>

- Zhong S, Israel S, Xue H, Sham P, Ebstein R, and Chew SH* (2009), "A Neurochemical Approach to Valuation Sensitivity over Gains and Losses" Proceedings of the Royal Society B: Biological Sciences 276: 4181 – 4188
- Zhong S, Israel S, Xue H, Ebstein R, and Chew SH* (2009), "Monoamine Oxidase A Gene (MAOA) Associated with Attitude towards Longshot Risks.", *PLoS ONE* 4(12): e8516
- Zhong S, Chew SH*, Set E, Zhang J, Xue H, Sham P, Ebstein R, and Israel S (2009), "The heritability of attitude towards economic risk", *Twin Research and Human Genetics*, 12 (1): 103 – 107
- Chew SH and J. S. Sagi (2008), "Small Worlds: Modeling attitudes toward Sources of Uncertainty", Journal of Economic Theory 139: 1 – 24
- Chew SH, Li KK, R. Chark, and Zhong S (2008), "Source preference and ambiguity aversion: Models and Evidence from Behavioral and Neuroimaging Experiments", Neuroeconomics, Houser and McCabe (eds), Elsevier: Advances in Health Economics and Health Services Research
- 6. Chew SH and Serizawa S (2007), "Characterizing the Vickrey Combinatorial Auction by Induction", *Economic Theory* 33: 393 406
- 7. Chew SH and J. S. Sagi (2006), "Event Exchangeability: Probabilistic Sophistication without Monotonicity or Continuity", *Econometrica* 74: 771 786
- 8. Chew SH and G. Tan (2005), "The Market for Sweepstakes", *Review of Economic Studies* 72: 1009 1029
- 9. Chew SH and N. Nishimura (2003), "Revenue Non-Equivalence between the English Auction and the Second-Price Auction: Experimental Evidence" *Journal of Economic Behavior and Organization* 51: 443 458

<u> 1990 – 1999</u>

- 1. Chew SH and K. Konrad (1998), "Bandwagon Effects in Two-Party Majority Voting" Journal of Risk and Uncertainty 16: 165 – 172
- 2. Chew SH and P. Wakker (1996), "The Comonotonic Sure-Thing Principle" *Journal of Risk and Uncertainty* 12: 5 27
- 3. Chew SH and L. Herk (1996), "Incremental Risk Aversion and Diversification Preference" *Journal of Economic Theory* 70: 180 – 200
- 4. Chew SH and Mao MH (1995), "A Schur-Concave Characterization of Risk Aversion for Non-Expected Utility Preferences" *Journal of Economic Theory* 67: 402 435
- 5. Chew SH and J.L. Ho (1994), "Hope: An Empirical Study of Attitude toward the Timing of Uncertainty Resolution" *Journal of Risk and Uncertainty* 8 (1994): 267 288
- 6. Chew SH and E. Karni (1994), "Choquet Expected Utility with a Finite State Space Commutativity and Act-Independence", Journal of Economic Theory 62: 469 – 479
- 7. Chew SH, L.G. Epstein and U. Segal (1994), "The Projective Independence Axiom" *Economic Theory* 4: 189 215
- Chew SH, L.G. Epstein and P. Wakker (1993), "A Unifying Approach to Axiomatic Non-Expected Utility Theory: Correction and Comment" *Journal of Economic Theory* 59: 183–188
- 9. Chew SH and N. Nishimura (1992), "Differentiability, Comparative Statics and Non-Expected Utility Preferences" *Journal of Economic Theory* 56: 294 – 312
- 10. Chew SH and L.G. Epstein (1991), "Recursive Utility under Uncertainty" in Equilibrium Theory with an Infinite Number of Commodities, Khan and Yanellis (eds.), Springer-Verlag, 1991
- 11. Chew SH, L.G. Epstein and U. Segal (1991), "Mixture Symmetry and Quadratic Utility" *Econometrica* 59: 139–163

- 12. Chew SH and L.G. Epstein (1990), "Non-Expected Utility Preferences in a Temporal Framework with an Application to Consumption-Savings Behavior", *Journal of Economic Theory* 50: 54–81
- 13. Chew SH and I Zilcha (1990), "Invariance of the Efficient Sets when the Expected Utility Hypothesis is Relaxed", *Journal of Economic Behavior and Organization* 13: 125-31

Before 1990

- Chew SH and L.G. Epstein (1989), "The Structure of Preferences and Attitudes towards the Timing of the Resolution of Uncertainty" *International Economic Review* 30: 103 – 117
- 2. Chew SH and L.G. Epstein (1989), "Axiomatic Rank-Dependent Means", *Annals of Operations Research* 19: 299 309
- 3. Chew SH (1989), "Axiomatic Utility Theories with the Betweenness Property", Annals of Operations Research 19: 273 – 298
- 4. Chew SH and L.G. Epstein (1989), "A Unifying Approach to Axiomatic Non-Expected Utility Theory" *Journal of Economic Theory* 49: 207 240
- 5. Chew SH, L.G. Epstein and I. Zilcha (1988), "A Correspondence Theorem between Expected Utility and Smooth Utility" *Journal of Economic Theory* 46: 186 193
- 6. Chew SH and L.G. Epstein (1988), "The Law of Large Numbers and the Attractiveness of Compound Lotteries" *Journal of Risk and Uncertainty* 1: 125 132
- 7. Chew SH, E. Karni and Z. Safra (1987), "Risk Aversion in the Theory of Expected Utility Theory with Rank-Dependent Probabilities" *Journal of Economic Theory* 42: 37081
- 8. Chew SH and W.S. Waller (1986), "Empirical Tests of Weighted Utility Theory" *Journal* of Mathematical Psychology 30: 55 72
- 9. Chew SH, Mao M.H. and S.S. Reynolds (1984), "Rotating Credit Collusion in Repeated Auctions with a Single Buyer and Several Sellers" *Economics Letters* 16: 1 6
- Chew SH (1983), "A Generalization of the Quasilinear Mean with Application to the Measurement of Income Inequality and Decision Theory Resolving the Allais Paradox" *Econometrica* 51: 1065 – 1092

Keynote Presentations

The Second Symposium of Brain-like Economics, Shandong, Dec 2020 Asia-Pacific Meeting of the Economic Science Association, Beijing, May 2020 PKU-NUS Annual International Conference on Quantitative Finance & Economics, June 2019 Asia-Pacific Meeting of the Economic Science Association, Brisbane, February 2018 Nanjing International Conference on Game Theory and the Fourth Microeconomics

Workshop, Nanjing, November 2017

China Meeting of the Econometric Society, Wuhan, June 2017

Fifth International Conference on Neuromanagement and Neuroeconomics, Zhejiang, November 2016

China Meeting of the Econometric Society, Chengdu, June 2016 Annual Conference on experimental economics, Dalian, September 2015 Conference on Decision Making and the Unconscious, Geneva, October 2014 Tsinghua Conference on Theoretical and Behavioral Economics, Beijing, June 2014 Second Kyoto University Experimental Economics Conference, February, 2014 International Workshop on Experimental Economics, Xiamen, December, 2013 Tsinghua Conference on Theoretical and Behavioral Economics, Beijing, June 2013 Guanghua Seminar in Behavioral Sciences, Beijing, June 2012 Inaugural China Meeting of the Econometric Society, Beijing, June 2013 Asia-Pacific Meeting of the Economic Science Association, Tokyo, February 2012 Nottingham workshop on experimental economics, Ningbo, September 2009 Far Eastern Meeting of the Econometric Society, Singapore, 2009 International Meeting of the Economic Science Association, Washington DC, June 2008 Asia Pacific Meeting of the Economic Science Association, Osaka, February 2007

Honors

Fellow, Econometric Society, 2012 – present The Leonard J. Savage Award, 1982 Best Research Paper Award, Institute for Decision Sciences, 1982

Professional Experience

Jul 2019 – present, Professor, Southwestern University of Finance & Economics Dec 2009 – present, Professor, National University of Singapore Jul 1994 – Dec 2009, Professor, Hong Kong University of Science & Technology Jul 1995 – Mar 1999, Professor, University of California, Irvine Jul 1991 – Jun 1995, Associate Professor, University of California, Irvine Jan – Dec 1990, Visiting Associate Professor, Tulane University Sep 1986 – Jun 1987, Visiting Associate Professor, University of Toronto Dec 1984; summer 1985, Visiting Senior Lecturer, Tel Aviv University Jul 1984 – Jun 1991, Assistant Professor, Johns Hopkins University Jun 1980 – Jul 1984, Assistant Professor, University of Arizona

Selected Invited Presentations

HKUST, Economics, Jan 2021 CityU, Economics, Jan 2021 Baptist U, Economics, Jan 2021 CUHK, Economics, Jan 2021 HKU, Economics, Jan 2021 CUHK-SZ, Dec 2020 Fudan University, Nov 2020 Shanghai Jiaotong, Nov 2020 Renmin University, Oct 2020 CUHK-Shen Zhen, Dec 2020 Renmin University, Oct 2020 CUHK-Shen Zhen, Dec 2020 Renmin University, Oct 2020 Caltech, Humanity and Social Sciences, Jan 2020 UC Irvine, IMBS, Sciences, January 2020 UC Riverside, Business School, January 2020 UC Irvine, IMBS, Sciences, January 2019 Johns Hopkins University, December 2019 BRIQ Belief Workshop, Bonn, June 2019 UC Irvine, IMBS, Sciences, January 2019 University of Southern California, INET, Los Angeles, January 2019 Fudan University, School of Finance, December 2018 CAS Institute of Zoology, Kunming, March 2018 Kunming Medical University, March 2018 Yunnan University of Finance and Economics, March 2018 Lingnan University, February 2018 Hong Kong University of Science and Technology, February 2018 Hong Kong Baptist University, February 2018 Duke University at Kunshan, November 2017 University of British Columbia, October 2017 Simon Fraser University, October 2017 University of Alberta, October 2017 University of Oregon, September 2017 University of California, Davis, September 2017 University of California, Santa Cruz, September 2017

University of California, San Diego, September 2017 University of California, Santa Barbara, September 2017 Arizona State University, Phoenix, September 2017 University of Arizona, Tucson, September 2017 University of Chicago, May 2017 Columbia University, May 2017 George Mason University, April 2017 Yale University, April 2017 Peking University, Beijing, December 2016 Tsinghua University, Beijing, December 2016 Fudan University, Beijing, December 2016 Xi'an Jiatong University, Xi'an, November 2016 Decision Theory, Experiment, and Application Conference, Paris, June 2016 Southwest University of Finance and Economics, May 2016 Decision Theory, Experiment, and Application Conference, Paris, June 2016 Jiatong Liverpool University, Suzhou, January 2016; Peking University, December 2015 Tsinghua University, December 2015 Wuhan University, September 2015 Spencer Conference, Chicago, December 2010 Decision Theory, Experiment, and Application Conference, Paris, June 2010 Workshop in Honor of Daniel Ellsberg, Vienna, March 2010

Selected Service

Associate Editor, Journal of Neuroscience, Psychology and Economics, 2014 –
Associate Editor, Journal of Socio-Economics, 2013 –
Co-chair, China Meetings of the Econometric Society, 2012 – 2016
Co-director, Laboratory for Behavioral x Biological Economics and the Social Sciences, NUS (b2ess.nus.edu.sg), Spring 2010 – 2018
Director, center for Experimental Business Research, Hong Kong University of Science and Technology, Fall 1998 – June 2013
Asia Pacific Vice-President, Economic Science Association, 2008 – 2010
Advisory Editor, Journal of Risk and Uncertainty, 1998 – 2008