# Fan Cao, Ph.D.

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The Jockey Club Tower, Room 606		
Education		
2004-2009	PhD, Communication Sciences and Disorders, N Evanston, IL. USA	orthwestern University
2001-2004	MA, Psychology, Beijing Normal University, Beijing	ng, China
1997-2001	BS, Psychology, Beijing Normal University, Beijin	ng, China
Positions		
2022-present	Associate Professor, Department of Psychology, Kong	the University of Hong
2017-2022	Professor, Department of Psychology, Sun Yat-S Guangzhou, Guangdong, China	Sen University,
2014-2018	Assistant Professor, Department of Communicati Disorders, Michigan State University, East Lansin	
2011-2013	Assistant Professor, elite Nanyang Assistant Professor, School of Humanities and Social Sc Technological University, Singapore	
2009-2011	Post-doctoral fellow, Learning Research and Dev University of Pittsburgh, USA	velopment Center,
Grants	evereily e. v. medeligi., e.e.	
External gran	ts	
2022-2025	PI, awarded by the National Social Science Fund (RMB 200,000), Neural correlates of subtypes of their developmental changes.	,
2020-2023	PI for a sub-project, awarded by Science and Tec Guangzhou, China, Key Area Research and Dev (202007030011) (RMB¥1500,000), <i>Brain mechadevelopmental neurological disorders</i> .	elopment Program
2019-2021	PI, awarded by Guangdong Province Planning O Social Science (GD19CXL05) (RMB¥50,000), S learning and critical period.	• •
2013-2017	PI, awarded by the Ministry of Education, Singap Academic Research Fund Tier 2, <i>Brain changes</i> interventions in bilingual children with reading dis	following different
Internal grant		,
2023	Seed grant awarded by the University of Hong Ko	ong
2023	Postdoc funding awarded by the University of Ho	J
2019-2021	PI, awarded by Sun Yat-Sen University, Advance Innovative Research Excellence (19wkjc08) (RM mechanisms underlying foreign speech imitation.	ed Support for B¥200,000), <i>Brain</i>

2018-2019	PI, awarded by Sun Yat-Sen University, Seed grant (18wkzd13) (RMB
	Y 150,000), Neural correlates of language learning and disability.
2010-2012	PI, Open project grant awarded by the State Key Lab of Cognitive
	Neuroscience and Learning, Beijing Normal University (USD\$10,000),
	Neural networks of reading in bilingual adults: proficiency effect

#### **Awards**

2021	Awardee, Yat-Sen Scholar, Sun Yat-Sen University	
2018	Awardee, Peacock talent program, Shenzhen Government	
2017	Awardee, Hundred Top Talents Program, Sun Yat-Sen University	
2011	Awardee, Elite Nanyang Assistant Professorship, Nanyang Technological University, Singapore. 10 awardees across disciplines the university every year	

#### **Research Interests**

Neural basis of language development and disorders in monolingual and bilingual children Neural basis of second language learning in children and adults
Brain changes following interventions in children with ASD
Figurative language comprehension in high-functioning adolescents with ASD
Educational neuroscience, developmental cognitive neuroscience

# **Editorial Board Membership**

2024- present Academic Editor, PLOS One
2022- present Editorial Board, Brain Sciences
2018- present Associate editor, Frontiers in Psychology

# Peer-Reviewed Journal Articles (\* indicates the first author is/was a student or post-doc in my lab; corresponding authors are underscored.)

- **1.** Feng G\*, Shen L, Shi L, Yan X, Liang Y, Zhang L, Zuo S, Wu Y, <u>Cao F.</u> (2025). Brain changes following two reading interventions in Chinese children with reading disability. *Developmental Science*.
- 2. Xu S\*, Wang X, Shen L, Yan X, Feng G, <u>Cao F</u>. (2025). Brain functional differences during irony comprehension in adolescents with ASD. *Cerebral Cortex*.35(2) bhaf003, https://doi.org/10.1093/cercor/bhaf003
- 3. Shen L\*, Feng G, Shi L, Wu Y, <u>Cao F</u>. (2024). The effectiveness of phonological training and morphological training in Chinese children with reading difficulty. *Reading and writing*, https://doi.org/10.1007/s11145-024-10623-7
- **4.** Fu Y\*, Yan X, Mao J, Su H, <u>Cao F</u>. (2024). Abnormal brain activation during speech perception and production in children and adults with reading difficulty. *npj Sci. Learn.* 9, 53. https://doi.org/10.1038/s41539-024-00266-2
- **5.** Yan, X.\*, Fu, Y., Feng, G., Li, H., Su, H., Liu, X., Wu, Y., Hua, J., & <u>Cao, F</u>. (2024). Reading disability is characterized by reduced print–speech convergence. *Child Development*, 00, 1–18. https://doi.org/10.1111/cdev.14134
- 6. Yan, X. \*, Feng, G., Fu, Y., Hua, J., & <u>Cao, F</u>. (2024). Age-related changes in

- individuals with and without reading disability: Behavioral and fMRI evidence. *Imaging Neuroscience*, 2, 1-18.
- 7. Wang A\*, Yan X, Feng G, <u>Cao F</u>. (2024) Shared and task-specific brain functional differences across multiple tasks in children with developmental dyslexia. *Neuropsychologia*, 201:108935.
- **8.** <u>Cao F</u> (2023). Brain changes with Chinese reading development in typical and atypical readers. *Frontiers in Psychology.* 14:1292985.
- **9.** Feng G\*, Yan X, Shen L, Perkins K, Mao J, Wu Y, Shi L, <u>Cao F.</u> (2023). Distinct neural correlates of poor decoding and poor comprehension in children with reading disability. *Cerebral Cortex.* 33, 3239-3254. doi: 0.1093/cercor/bhac272.
- **10.** Wu Y\*, Feng G, Yan X, Perkins K, Liu L, Yan X, <u>Cao F.</u> (2022). Reduced pattern similarity in brain activation during orthographic processing in children with developmental dyslexia. *Brain and Language*. 235, 105201.
- **11.** <u>Cao F</u>, Fan Y, Yan X, Chen W, Dodson-Garrett M, Spray, GJ, Wang Z, Deng Y. (2022). Greater similarity between L1 and L2's brain network in adults than in children. *Frontiers in Neuroscience*. 16: 816729.
- **12.** Kim S\* & <u>Cao F.</u> (2022). How does the brain read different scripts? Evidence from English, Korean, and Chinese. *Reading and writing*. 35, 1449–1473.
- **13.** Yan X\*, Jiang K, Li H, Wang Z, Perkins K, & <u>Cao F.</u> (2021). Convergent and divergent structural and functional brain abnormalities associated with developmental dyslexia. *eLife*. https://doi.org/10.7554/eLife.69523
- **14.** Mao J\*, Liu L, Perkins K, <u>Cao F.</u> (2021). Poor reading is characterized by a more connected network with wrong hubs. *Brain and Language. 220. https://doi.org/10.1016/j.bandl.2021.104983.*
- **15.** Yan X\*, Perkins K, <u>Cao F</u>. (2021) A hierarchical deficit model of developmental dyslexia: evidence from a DCM study. *Neuropsychologia*. *154*. doi: 10.1016/j.neuropsychologia.2021.107777
- **16.** Cao F, Yan X, Yan X, Zhou H, Booth JR. (2021) Reading disability in Chinese children learning English as an L2. *Child Development*. 92(2): e126-e142.
- **17.** Kim S\*, Liu L, Liu L, <u>Cao F.</u> (2020). Neural representational similarity between L1 and L2 in spoken and written language processing. *Human Brain Mapping.* 41(17):4935-4951. doi: 10.1002/hbm.25171.
- **18.** Cao F, Wang Z, Yan X, Sussman B, Spray G, Rios V. (2019) L1 reading experience influences L2 lexical learning: Spanish learning in Chinese speakers and English speakers. *Neuroscience*. 416: 255-267.
- **19.** Wang Z\*, Yan X, Liu Y, Spray G. J., Deng Y, <u>Cao F.</u> (2019). Structural and functional abnormality of the putamen in children with developmental dyslexia. *Neuropsychologia*. 130:26-37.
- **20.** Wang C, Yang Z, **Cao F**, Liu L, <u>Tao S</u>. (2019) Letter-sound integration in native Chinese speakers learning English: Brain fails in automatic responses but succeeds with more attention. *Cognitive Neuroscience*. 10(2):100-116.
- **21.** Cao F, Yan X\*, Spray G. J., Liu Y, Deng Y. (2018). Brain mechanisms underlying visuo-orthographic deficits in children with developmental dyslexia. *Frontiers in Human Neuroscience*. 12: 490.
- **22.** Kim S\* Liu L & <u>Cao F.</u> (2017). How does first language (L1) influence second language (L2) reading in the brain? Evidence from Korean-English and

- Chinese-English bilinguals. Brain and Language. 171:1-13.
- **23.** <u>Cao F</u>, Sussman B, Rios V, Yan X, Spray G, Wang Z, Mack R. (2017). Different brain mechanisms involved in learning different L2s: evidence from native English speakers learning Spanish and Chinese. *NeuroImage*, 148: 284-295.
- **24.** Cao F, Yan X, Wang Z, Liu Y, Wang J, Spray G, Deng Y. (2017). Neural signatures of phonological deficits in developmental dyslexia. *Neurolmage*, 146, 301-311.
- **25.** Lagarrigue A, Longcamp M, Anton J, Nazarian B, Prevot L, Velay J, **Cao F**, Frenck-Mestre C. (2017). The neural network of reading: Does writing help the brain accommodate for linguistic diversity? *Neuropsychologia*, 97, 83-97.
- **26.** Cao F. (2017). Brain MRI data in Chinese dyslexic children performing an auditory rhyming judgment task. *Data in Brief*, 11:473-478.
- 27. <u>Cao F</u> & Perfetti CA. (2016). Neural signatures of the reading-writing connection: greater involvement of writing in Chinese reading than English reading. *PlosOne*. 11(12): e0168414.
- **28.** Liu H\* & <u>Cao F.</u> (2016). L1 and L2 processing in the bilingual brain: a meta-analysis on neuroimaging studies. *Brain and Language*, 159, 60-73.
- **29.** Cao F. (2016). fMRI data from Korean, Chinese and English subjects in a word rhyming judgment task. *Data in Brief*, 7, 591-594.
- **30.** Kim S\*, Qi T, Fang X, Ding G, Liu L, & <u>Cao F.</u> (2016). How does language distance between L1 and L2 affect the L2 brain network? An fMRI study of Korean-Chinese-English trilinguals. *NeuroImage*, 129, 25-39.
- **31.** Cao F. (invited review article) (2016). Neuroimaging studies on bilingual reading. *Bilingualism: Language and Cognition.* 19(4), 683-688.
- **32.** <u>Cao F</u>, Brennan C & <u>Booth JR.</u> (2015). The brain adapts to orthography with experience: Evidence from English and Chinese. *Developmental Science*, 18(5): 785-798.
- **33.** Cao F, Kim S, Liu Y & Liu L. (2014). Similarities and differences in brain activation and functional connectivity in first and second language reading: Evidence from Chinese learners of English. *Neuropsychologia*, 63, 275-284.
- **34.** Cao F, Tao R, Liu L, Perfetti CA, & Booth JR. (2013). High proficiency of second language is characterized by greater involvement of the first language network: evidence from Chinese learners of English. *Journal of Cognitive Neuroscience*, 25(10), 1649-1663.
- **35.** Cao F, Rickles B, Vu M, Zhu Z, Chan H, Harris L, Stafura J & Perfetti CA. (2013). Early-stage visual processing predicts retention in second language learning: an ERP study. *Journal of Neurolinguistics*, 26(4), 440-461.
- **36.** Perfetti CA, Cao F, Booth JR. (2013). Specialization and universals in the development of reading skill: How Chinese research informs a universal science of reading. Scientific Studies of Reading, 17(1), 5-21.
- **37.**Brennan C, **Cao F,** Pedroarena-Leal N, McNorgan C & <u>Booth JR.</u> (2013). Learning to read reorganizes the oral language network only in alphabetic writing systems. *Human Brain Mapping*, 34(12), 3354-3368.
- **38.** Cao F, Vu M, Chan H, Lawrence J, Harris L, Guan Q, Xu Y & Perfetti CA. (2013). Writing affects the brain network of reading in Chinese: an fMRI study. *Human Brain Mapping*, 34(7), 1670-1684.
- 39. Cao F, Khalid K, Lee R, Brennan C, Yang Y, Li K, Bolger DJ, & Booth JR. (2011).

- Development of brain networks involved in spoken word processing of Mandarin Chinese. *Neurolmage*, 57(3), 750-759.
- **40.** Cao F, Lee R, Shu H, Yang Y, Xu G, Li K & Booth JR. (2010) Cultural constraints on brain development Evidence from a developmental study of Chinese visual words processing. *Cerebral Cortex*, 20(5), 1223-1233.
- **41.** Cao F, Khalid K, Zaveri R, Bolger DJ, Bitan T & Booth JR. (2010) Neural correlates of priming effects in children during spoken words processing with orthographic demands. *Brain and Language*, 114(2), 80-89.
- **42.** Liu L, Deng X, Peng D, **Cao F**, Ding G, Jin Z, Zeng Y, Li K, Zhu L, Fan N, Deng Y & Booth JR. (2009) Modality- and task-specific brain regions involved in Chinese lexical processing. *Journal of Cognitive Neuroscience*, 21, 1473-1487.
- **43.** Cao F, Peng DL, Liu L, Jin Z, Fan N, Deng Y, & Booth JR. (2009). Developmental differences of neurocognitive networks of phonological and semantic processing in Chinese word reading. *Human Brain Mapping*, 30(3), 797-809.
- **44.** Cao F, Bitan T & Booth JR. (2008). Effective connectivity in children with reading difficulties during phonological processing. *Brain and Language*, 107, 91-101.
- **45.** Cao F, Bitan T, Chou TL, Burman DD & Booth JR. (2006). Deficient orthographic and phonological representations in developmental dyslexics revealed by brain activation patterns. *Journal of Child Psychology and Psychiatry*, 47(10), 1041-1050.
- **46.** Bitan T, Burman DD, Chou TL, Dong L, Cone NE, **Cao F**, Bigio JD & <u>Booth JR</u>. (2007) The interaction between orthographic and phonological information in children: an fMRI study. *Human Brain Mapping*, 28(9), 880-891.
- **47.** Chou TL, Booth JR, Bitan T, Burman DD, Bigio JD, Cone NE, Dong L & **Cao F.** (2006). Developmental and skill effects on the neural correlates of semantic processing to visually presented words. *Human Brain Mapping*, 27, 915-924.
- **48.** Shu H, Meng X, Chen X, Luan H, & Cao F. (2005). The subtypes of developmental dyslexia in Chinese: Evidence from three cases. *Dyslexia*, 11, 311-329.
- **49.** Zhang Y, Zhou X, Shu H, & **Cao F.** (2003) Lexical and sub-lexical contribution to phonological activation in reading Chinese: Interaction with children's reading ability. *Acta Psychological Sinica*, *35* (Supplement), 6-13.

#### **Book chapters**

<u>Cao F</u> (2025). Brain changes in Chinese reading development and disorders. In H. Winskel (Ed.), Springer Handbook of Reading in Nonlinear Writing Systems. Amsterdam/Philadelphia: John Benjamins

<u>Cao F</u> (2018). Neural correlates of Chinese word reading. In H. K. Pae (Ed.), *Writing systems, reading processes, and cross-linguistic influences: Reflections from the Chinese, Japanese and Korean languages*. Amsterdam/Philadelphia: John Benjamins

# **Manuscripts**

- 1. Yan X\*, Xu S, Feng G, <u>Cao F</u>. (under review). An age-related posterior to anterior shift in the left OT area in Chinese readers with reading disability.
- 2. Yan X\*, Mao J, Ma Z, Perkins K, Li W, Wang Y, <u>Cao F</u>. (under review). Neural correlates of foreign speech imitation: the effect of age and music training.
- 3. Yan X\*, Fu Y, <u>Cao F</u> (in preparation). Neural variability might be a driving force of task specialization in the brain.

# **Invited Keynote Speech and Conference Oral Presentations**

- **Cao F.** Brain changes with reading development and disorders. 中国心理学会语言专委会,大会报告,2024年11月,北京
- Cao F. Neural plasticity during Chinese reading development and disorders. 第十三届华人心理学家大会,论坛报告,2024年10月,深圳
- **Cao F.** Brain changes with reading development in Chinese individuals with RD. Reading in the alternative populations, June, 2023, The educational University of Hong Kong. **Session Chair.**
- **Cao F.** Two possible endophenotypes of reading disability. The 6<sup>th</sup> Annual Asian Reading and Writing Association Conference, Feb. 2022, Hong Kong. Session Chair
- **Cao F**, Yan X, Deng Y. Neural signature of phonological deficits in Chinese children with developmental dyslexia. The 16<sup>th</sup> International Conference on the Processing of East Asian Languages, Dec. 2016, Guangzhou, China.
- Kim S\*, Liu L, & **Cao F**. Is Korean more similar to Chinese than to English? An fMRI study on Korean-Chinese-English trilinguals. The *10<sup>th</sup> International Conference on Cognitive Science*, Sep. 2015, Torino, Italy.
- **Cao F**. High proficiency in a second language is characterized by greater involvement of the first language network. The 9<sup>th</sup> *International Symposium of Bilingualism, June, 2013, Singapore.*
- Cao F, Vu M, Chan H, Lawrence J, Harris L, Guan Q, Xu Y & Perfetti CA. Writing helps reading: Evidence from learning Chinese. *Society of Scientific Studies of Reading, July, 2011, St. Pete Beach, Fl.*

#### **Conference Posters**

- Yan X, & Cao F. An age-related posterior to anterior shift in the left OT area in Chinese readers with reading disability. *The Society for Neurobiology of Language, October, 2024, Brisbane, Australia.*
- Shen L, Feng G, & Cao F. the effectiveness of intervention in Chinese children with reading disability. *Society for the Scientific Studies of Reading, July, 2024, Copenhagen, Denmark.*
- Yan X, & Cao F. An age-related posterior to anterior shift in the left OT area in Chinese readers with reading disability. The *OHBM*, *June*, 2024, *Korea*.
- Yan, & Cao F. An age-related posterior to anterior shift in the left OT area in Chinese readers with reading disability. The 8<sup>th</sup> Annual Asian Reading and Writing Association Conference, Feb. 2024, Korea.
- Mao J, & Cao F. How does age and musical training experience affect foreign speech imitation? *Society for Neurobiology of Language, October, 2023, Marseille, France.*
- Wu Y, Feng G, & **Cao F.** Brain changes following a phonological and a morphological intervention in Chinese children with reading disability. *Society for Neurobiology of Language, October, 2023, Marseille, France.*
- Zhang Q, Yan X, & **Cao F**. Bilingual dyslexic children show both language universal and language specific deficit in the brain. *Society for Neurobiology of Language, August, 2019, Helsinki, Finland.*

- Yan X, Spray G, Liu Y, & Cao F. Neural Correlates of visuo- orthographic processing in Chinese children with developmental dyslexia. *CNS*, *April*, *2017*, *San Francisco*.
- Dodson-Garrett M, Chen W, Yan X, Deng Y & **Cao F**. Assimilation takes time to happen in the brain: a comparison between bilingual children and bilingual adults. *MSHA*, *April*, *2017*, *Grand Rapid*, *Michigan*.
- Rios V, Sussman B, & Cao F. The transfer effect of L1 metalinguistic skills in Chinese and Spanish L2 learning. MSHA, April, 2016, Grand Rapid, Michigan.
- Spray G, Kim S, & **Cao F.** Neural Correlates of spoken language processing in Korean-Chinese-English trilinguals. *MSHA, April, 2016, Grand Rapid, Michigan.*
- Yan X, & Cao F. Neural Correlates of visuo- orthographic processing in Chinese children with developmental dyslexia. *MSHA, April, 2016, Grand Rapid, Michigan.*
- Sussman B & Cao F. The development of white matter integrity in Chinese children. The Annual Conference of Society for Neuroscience, October, 2015, Chicago.
- Yan X, & Cao F. Neural Correlates of phonological and orthographic processing in Chinese children with developmental dyslexia. *The Annual Conference of Society for Neuroscience, October, 2015, Chicago.*
- Lagarrigue A, Longcamp M, Anton J, Nazarian B, Prevot L, Velay J, **Cao F**, Frenck-Mestre C. The neural network of reading: Does writing help the brain accommodate for linguistic diversity? *The 7th conference of Society for Neurobiology of Language Conference, October, 2015, Chicago.*
- Sussman B & Cao F. The development of white matter integrity in Chinese children.

  The 7th conference of Society for Neurobiology of Language Conference, October, 2015, Chicago.
- Yan X, & Cao F. Neural Correlates of phonological and orthographic processing in Chinese children with developmental dyslexia. *The 7th conference of Society for Neurobiology of Language Conference, October, 2015, Chicago.*
- Kim S, & Cao, F. The effect of first language on brain reading network in second language: Evidence from Korean-English and Chinese-English bilingual groups. The 7th conference of Society for Neurobiology of Language Conference, October, 2015, Chicago.
- Kim S, & Cao, F. Assimilation and accommodation in non-native reading networks: Evidence from Korean-Chinese-English multilinguals. *The 6th Society for Neurobiology of Language Conference, August, 2014, Amsterdam, Netherlands.*
- **Cao F**, Kim S, Liu Y & Liu L. Similarities and differences in brain activation and functional connectivity in first and second language reading: Evidence from Chinese learners of English. *Cognitive Neuroscience Society, April, 2014, Boston, MA*.
- Kim SY, Liu Y, & Cao F. Same reading network but different connectivity for first and second language: Evidence from Chinese learners of English. *The 43rd Annual Meeting of the Society for Neuroscience, November, 2013, San Diego, CA, USA.*
- **Cao F**, Liu L, Tao R & Booth JR. High proficiency in a second language is characterized by greater involvement of the first language network. *Cognitive Neuroscience Society, April, 2013, San Francisco, CA.*
- **Cao F**, Liu L, Tao R & Booth JR. High proficient bilinguals show greater assimilation: evidence from late Chinese-English bilinguals. *Organization of Human Brain Mapping, June, 2012, Beijing, China.*

- Kwok F, Ho R, **Cao F**, Chen A. A meta-analysis study on Chinese dyslexia. *Organization of Human Brain Mapping, June, 2012, Beijing, China.*
- Brennan C, Cao F, Pedroarena-Laele N, McNorgan C & Booth JR Learning to reading reorganizes the oral language network only in alphabetic writing systems. *Cognitive Neuroscience Society, April, 2012, Chicago, IL.*
- **Cao F,** Vu M, Chan H, Lawrence J, Harris L, Guan Q, Xu Y & Perfetti CA. Writing changes the brain network of reading in Chinese: an fMRI study. *Organization of Human Brain Mapping, June, 2011, Quebec, Canada.*
- **Cao F,** Vu M, Chan H, Lawrence J, Harris L, Guan Q, Xu Y & Perfetti C. Writing helps reading in English learners of Chinese: an fMRI study. *Society for Neuroscience, November, 2010, San Diego, CA.*
- Brennan C, **Cao F**, & Booth JR. Cultural constraints on brain development Evidence from a Chinese visual word processing study. *Organization of Human Brian Mapping, June, 2010, Barcelona, Spain.*
- **Cao F,** Lee R, Shu H, Yang Y, Xu G, Li K & Booth JR. Cultural constraints on brain development Evidence from a Chinese visual word processing study. *Organization of Human Brian Mapping, June, 2009, San Francisco, CA.*
- Bolger DJ, Gray J, Minas J, **Cao F**, Burman DD, Booth JR. Differential effects of phonological and orthographic consistency in cortex in children with and without reading disorders. *Society for the Scientific Studies of Reading: June, 2009, Boston, MA.*
- Bolger DJ, Minas J, **Cao F**, Burman DD, Booth JR. Phonological and orthographic consistency effects in cortex for normal and impaired readers. *Cognitive Science Society: July, 2008, Washington, DC.*
- Bolger DJ, Minas J, **Cao F**, Burman DD, Booth JR. Differential effects of phonological and orthographic consistency in cortex for children with and without reading disorders. *Society for Scientific Studies of Reading: July, 2008, Asheville, NC.*
- **Cao F,** Peng DL, Liu L, Jin Z, Fan N, Deng Y & Booth JR. Developmental differences of neurocognitive networks for phonological and semantics processing in Chinese word reading. *Cognitive Neuroscience Society: April, 2008, San Francisco, CA.*
- Zaveri R, **Cao F**, Bolger DJ & Booth JR. Orthographic and phonological cortical priming effects in children during spoken language processing. *Cognitive Neuroscience Society: April, 2008, San Francisco, CA.*
- Liu L, Deng X, Peng D, **Cao F**, Ding G, Jin Z, Zeng Y, Li K, Zhu L, Fan N, Deng Y & Booth JR. Modality- and task-specific brain regions involved in Chinese lexical processing. *Cognitive Neuroscience Society: April, 2008, San Francisco, CA.*
- **Cao F,** Bitan T, Chou T, Burman D, & Booth JR. Altered brain activity and connectivity of children with dyslexia during phonological processing. *Organization of Human Brian Mapping, June, 2007, Chicago, IL.*
- Booth JR, Bitan T, **Cao F**, Chou T, Bebko G, Burman DD. Development changes in activation patterns and effective connectivity during phonological and semantic processing and its breakdown in reading disorders. *Cognitive Neuroscience Society: May, 2007, New York, NY.*

- **Cao F**, Shu H, Booth JR, & Shan B. Phonological access of Chinese characters' components: Evidence from an fMRI study. *Cognitive Neuroscience Society Annual Conference, April 2005, New York, NY.*
- **Cao F** & Shu H. The role of phonological and morphological processing in learning to read: Evidence from normal and dyslexic children. *The Tenth International Conference on Cognitive Processing of Chinese and Other Related Asian Languages (ICCPCORAL, 2002, Taipei, Taiwan).*

# **Courses taught**

2023 Spring-	Psych7067 Biological Psychology, University of Hong Kong
2023 Spring-	Psych2110 Developmental Neuroscience, University of Hong Kong
2022 Spring-	Psych2067 Seminar in Cognitive Sciences, University of Hong Kong
2022 spring-	Psych2022 Biological Psychology, University of Hong Kong
2020 Spring-2022	PSYCH4120 Neurophysiology, Sun Yat-Sen University
2020 Fall-2022	PSYCH5120 Child and adolescent development, Sun Yat-Sen University
2017 Spring-2022	PSYCH5220 Developmental cognitive disorders, Sun Yat-Sen University
2017 Fall -2022	PSYCH5010 Advanced Research methods-fMRI, Sun Yat-Sen University
2016 Spring-2017 Spring	CSD 992 Special Topic: Developmental dyslexia, <i>Michigan State University</i>
2015 Fall-2017 Fall	CSD 991 Research survey, Michigan State University
2015 Spring-2016	CSD 820 Language assessment and intervention: Early stages,
Spring	Michigan State University
2014 Fall-2017 Fall	CSD 813 Neuroanatomy and neurophysiology, <i>Michigan State University</i>
2011-2013	HSS 809 Reading development and disorders, <i>Nanyang Technological University, Singapore</i>

#### **Invited Talks**

February, 2023	State Key Lab of Cognitive Neuroscience and Learning, Beijing Normal University
February, 2022	Department of Communication Sciences and Disorders, University of South Carolina
February, 2021	Department of Psychology, Chinese University of Hong Kong
February, 2021	Center of Brian and Cognition, University of Macau
June, 2020	Bilingualism Forum, Center for Linguistics and Applied Linguistics, Guangdong University of Foreign Studies
April, 2019	Autism forum, the Third Hospital affiliated with Sun Yat-Sen University
April, 2017	Department of Psychology, Sun Yat-Sen University

December, 2016	State Key lab of learning and cognitive neuroscience, Beijing Normal University, Beijing
December, 2016	Language research center, Beijing Science and Technology University, Beijing
December, 2016	Department of Psychology, Tsinghua University, Beijing
January, 2015	Cognitive Forum, Psychology department, Michigan State University
June, 2014	Brain and Language Research Institute (BLRI), Aix-Marseille Université, France
April, 2014	Michigan Dyslexia Institute
December, 2011	National Institute of Education, Nanyang Technological University
March, 2011	School of Education, University of California, Davis
February, 2011	School of Humanities and Social Sciences, Nanyang Technological University, Singapore
February, 2011	Institute of Psychology, Chinese Academy of Sciences
February, 2011	Department of Psychology, Peking University
April, 2009	Department of Psychology, Penn State University
March, 2009	LRDC, University of Pittsburgh

## **Student Research Mentorship**

## Postdoctoral research fellowship

Xiaohui Yan, Ph.D., Department of Psychology, the University of Hong Kong, 2023-Bethany Sussman, Ph.D., Communication Sciences and Disorders, Michigan State University, 2014-2016

Say Young Kim, Ph.D., Division of Psychology, School of Humanities and Social Sciences, Nanyang Technological University, Singapore, 2011-2013

#### Ph.D. Dissertation Chair

Yang Fu, Department of Psychology, the University of Hong Kong, 2024-2028 Shilin Xu, Department of Psychology, Sun Yat-Sen University, 2021-2024 Guoyan Feng, Department of Psychology, Sun Yat-Sen University, 2018-2023 Xiaohui Yan, Department of Psychology, Sun Yat-Sen University, 2018-2022 Gregary J. Spray, CSD, Michigan State University, 2014-2019 Hengshuang Liu, Division of Psychology, Nanyang Technological University, Singapore, 2011-2014

#### MPhil's Thesis Chair

Mingyang Hua, Department of Psychology, the University of Hong Kong, 2024-2026 Weizheng Li, Department of Psychology, Sun Yat-Sen University, 2022 Wei Xian, Department of Psychology, Sun Yat-Sen University, 2022 Yu Wu, Department of Psychology, Sun Yat-Sen University, 2022 Yang Fu, Department of Psychology, Sun Yat-Sen University, 2022

Jiaqi Mao, Department of Psychology, Sun Yat-Sen University, 2021 Yulian Zhou, Department of Psychology, Sun Yat-Sen University, 2021 Yuyu Fan, Department of Psychology, Sun Yat-Sen University, 2021 Ke Jiang, Department of Psychology, Sun Yat-Sen University, 2021 Zan Wang, Department of Psychology, Sun Yat-Sen University, 2021 Tingting Kuang, Department of Psychology, Sun Yat-Sen University, 2020 Shuyi Ma, Department of Psychology, Sun Yat-Sen University, 2020 Valeria Rios, CSD, Michigan State University, 2016

## Senior Honors Thesis Supervisor

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# Mentored Undergraduate Research Honors college

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#### **Grant Reviewer**

Research Grants Council (RGC) of Hong Kong National Sciences and Engineering Research Council of Canada American Speech-Language-Hearing Association Medical Research Council. UK

#### Ad-hoc Journal Reviewer

Cerebral cortex
Human Brain Mapping
NeuroImage
Journal of Neuroscience
European Journal of Neuroscience
Memory and Cognition
Journal of Experimental Child Psychology
Language Learning and Development
Brain Research
Brain and Language
Bilingualism: Language and Cognition
Cognition

#### **Professional Affiliations**

Asian Reading and Writing Association Society of Scientific Studies of Reading Society for the Neurobiology of Language Society for Neuroscience Cognitive Neuroscience Society Organization of Human Brain Mapping

# **Services**

202	3-	Faculty representative in the Discontinuation Committee at the University of Hong Kong
202	3-	Departmental representative in the Faculty for the Higher Degree in Social Sciences Committee, the University of Hong Kong
202	3-	Member of the Ethics Review Committee, Department of Psychology, the University of Hong Kong
202	3-	Data Protection Coordinator, Department of Psychology, the University of Hong Kong
201	7-2022	Faculty search and promotion committee, Psychology Department, Sun Yat-Sen University, Graduate study and admission committee, Psychology Department, Sun Yat-Sen University,
201	6-2017	CAS, Michigan State University, College Advisory Council CSD representative CSD, Michigan State University, Department Advisory Committee CSD, Michigan State University, Faculty search committee
201	4-2017	CSD, Michigan State University, Graduate admission committee CSD, Michigan State University, Curriculum committee CSD, Michigan State University, Grievance committee