

# Chen Cheng

Room 2385, 2/F  
Division of Social Science  
The Hong Kong University of Science and Technology  
Clear Water Bay, Kowloon, Hong Kong  
chencheng@ust.hk  
<https://chencheng1.weebly.com>

## EMPLOYMENT

---

### Assistant Professor

Division of Social Science, Hong Kong University of Science and Technology 2022 - present

### Postdoctoral Researcher

Department of Psychological and Brain Sciences, Boston University 2019 - 2022  
Advisor: Dr. Melissa M. Kibbe

## EDUCATION

---

Ph.D., University of Massachusetts Boston 2014 - 2019  
Developmental and Brain Sciences  
Advisors: Dr. Erik Blaser & Dr. Zsuzsa Kaldy  
Dissertation: The early development of visual working memory

M.A., East China Normal University 2012 – 2015  
Developmental Psychology

B.S., Zhejiang University 2008 – 2012  
Psychology & Finance

## PUBLICATIONS

---

### *Peer reviewed publications*

1. **Cheng C.**, & Kibbe M.M. (2023). Is non-symbolic arithmetic truly “arithmetic”? Examining the computational capacity of the approximate number system in young children. *Cognitive Science*. <https://doi.org/10.1111/cogs.13299>
2. **Cheng C.**, & Kibbe M. M. (2022). Development of updating in working memory in 4-7-year-old children. *Developmental Psychology*. <https://doi.org/10.1037/dev0001337>.
3. Zhang, W., Dong, Q., Gong, L., Shang Q., **Cheng C.**, Ding, X. (2022). The theoretical accounts and developmental predictors of operational momentum effect. *Advances in Psychological Science*. Advance online publication.
4. **Cheng, C.**, & Kibbe, M. M. (2021). Children’s use of reasoning by exclusion to track identities of occluded objects. In *Proceedings of the 43<sup>th</sup> Annual Meeting of the Cognitive Science Society*.
5. **Cheng, C.**, Kaldy, Z., & Blaser, E. (2020). Coding of featural information in visual working memory in 2.5-year-old toddlers. *Cognitive Development*, 55, 100892.
6. **Cheng, C.**, Kaldy, Z., & Blaser, E. (2019). Two-year-olds succeed at MIT: Multiple identity tracking in 20-and 25-month-old infants. *Journal of Experimental Child Psychology*, 187, 104649.
7. **Cheng, C.**, Kaldy, Z., & Blaser, E. (2019). Focused attention predicts visual working memory

performance in 13-month-old infants: A pupillometric study. *Developmental Cognitive Neuroscience*, 100616.

8. Deng, X., An, S., & **Cheng, C.** (2019). Cultural differences in the implicit and explicit attitudes toward emotion regulation. *Personality and Individual Differences*, 149, 220-222.
9. **Cheng, C.**, Kaldy, Z., & Blaser, E. (2018). Using object history to predict future behavior: are young infants essentialists? In *Proceedings of the 40<sup>th</sup> Annual Meeting of the Cognitive Science Society*.
10. Deng, X., **Cheng, C.**, Chow, H. M., & Ding, X. (2018). Prefer feeling bad? Subcultural differences in emotional preferences between Han Chinese and Mongolian Chinese. *International Journal of Psychology*.
11. Hong, F., **Cheng, C.**, Sang, B., Ku, Y., & Pan, T. (2017). Mood and contextual effects on Facial recognition: Cultural or Cultural Advantage? *International Psychological Bulletin*, 31(3), 34-44.
12. Deng, X., Ding, X., **Cheng, C.**, & Chou, H. M. (2016). Feeling Happy and Sad at the Same Time? Subcultural Differences in Experiencing Mixed Emotions between Han Chinese and Mongolian Chinese. *Frontiers in psychology*, 7.
13. Song, Y., Hakoda, Y., Sanefuji, W., & **Cheng, C.** (2015). Can they see It? The functional field of view is narrower in individuals with Autism Spectrum Disorder. *PloS one*, 10(7), e0133237.
14. Ding, X., Coplan, R. J., Sang, B., Liu, J., Pan, T., & **Cheng, C.** (2015). Young Chinese children's beliefs about the implications of subtypes of social withdrawal: A first look at social avoidance. *British Journal of Developmental Psychology*. DOI: 10.1111/bjdp.12081
15. Ding, X., Coplan, R. J., Sang, B., Liu, J., Pan, T., & **Cheng, C.** (2015). Starting small: Revisiting young children's perceptions of social withdrawal in China. *British Journal of Developmental Psychology*, 33(2), 183-186.
16. Ding, X., Zhang T., Deng X., Sang B., Fang L., & **Cheng C.** (2015). "Alone but not lonely" or "alone and also lonely": Cultural differences on relations between unsociability and adjustment functioning. *Advances in Psychological Science (Chinese Version)* 23(3), 439-447
17. **Cheng, C.**, Hu J. W., & Sang B. (2013). Cognitive neuroscience studies on adolescence risk-taking and its implication for educational practice. *Journal of East China Normal University (education & science)* 31(2), 56-62

### ***Under review & In preparation***

**Cheng C.**, & Kibbe, M.M. (*under review*). Disambiguating objects' identities in working memory through reasoning by exclusion across development.

**Cheng C.**, & Kibbe, M.M. (*under review*). Development of precision of non-symbolic arithmetic operations in 4-6-year-old children.

**Cheng C.**, & Kibbe M.M. (*in prep.*). Early computational capacity beyond "1+1": an investigation of young children's exact arithmetic skills.

**Cheng C.**, Feigenson L., & Kibbe M.M. (*in prep.*). Fast-mapping labels onto sets in 2-year-olds.

Ren T., Wang J., Li M., Ding X., & **Cheng C.** (*in prep.*). Cognitive processes underlying different forms of non-symbolic subtractive operations in preschool children.

## **CONFERENCE PRESENTATIONS**

---

### **Paper presentations**

1. **Cheng C.**, & Kibbe M.M. (January, 2022). Infants represent an abstract "add one" operation. Talk presented at the *Budapest CEU Conference on Cognitive Development*, Budapest, Hungary.

2. **Cheng C.**, & Kibbe M.M. (November, 2021). Representation of an abstract “+1” operation in 15-month-olds. Talk presented at the *Trends in Psychological Summit* by Harvard University’s Women in Psychology, Boston, MA.
3. Deng, X., An, S., **Cheng, C.**, & You, Y. (May, 2020). Meeting cancelled due to COVID-19 outbreak. Cross-cultural emotion regulation in a social context. Talk at the annual meeting of the *Association for Psychological Science* (cancelled due to Covid19 Pandemic). Chicago, IL.
4. **Cheng C.**, Kaldy, Z., & Blaser, E. (July, 2018). Using object history to predict future behavior: are young infants essentialists? Talk given at the Cognitive Science Society, Madison, WI.

### Poster presentations

1. **Cheng C.**, & Kibbe M.M. (July, 2023). How count-list knowledge relates to 3-year-olds’ exact non-symbolic addition abilities?. Poster presented at the *45th Annual Meeting of the Cognitive Science Society*.
2. **Cheng C.**, Ding X., & Kibbe M.M. (May, 2023). Costs of manipulating representations of approximate visual magnitudes stored in visual working memory. Poster presented at the *Annual Meeting of Vision Science Society*, St. Pete Beach, FL.
3. **Cheng C.**, Ren T., Li M., Wang J., & Ding X. (May, 2023). Visual working memory updating in Chinese pre-schoolers. Poster accepted at the annual meeting of the *Association for Psychological Science*.
4. **Cheng C.**, Boak E. & Kibbe M.M. (March, 2023). Backward causal reasoning about success and failures in 4-to6-year-olds. Poster presented at *Biennial Meeting of the Society for Research in Cognitive Development*, Salt Lake City, UT.
5. **Cheng C.**, & Kibbe M.M. (January, 2023). When remembering less gets you more: 3-year-old’s use of reasoning by exclusion to infer unknown identities in working memory. Poster presented at the *Budapest CEU Conference on Cognitive Development*, Budapest, Hungary.
6. **Cheng C.**, & Kibbe M.M. (July, 2022). Representation of an abstract “+1” operation in infants. Poster presented at *International Conference on Infant Studies*, Ottawa, CA
7. **Cheng C.**, & Kibbe M.M. (April, 2022). Can children manipulate the outputs of non-symbolic arithmetic computations?. Poster presented at *Cognitive Development Society*, Madison, WI.
8. **Cheng C.**, & Kibbe M.M. (November, 2021). Fast-mapping labels onto sets in 2-year-olds. Poster presented at the *46th Boston University Conference on Language Development*.
9. **Cheng C.**, & Kibbe M.M. (July, 2021). Children’s use of reasoning by exclusion to track identities of occluded objects. Poster presented to the *43th Annual Meeting of the Cognitive Science Society*.
10. **Cheng C.**, & Kibbe M.M. (April, 2021). Development of mental manipulation in working memory in young children. Poster presented at the *Biennial Meeting of the Society for Research in Cognitive Development*, Minneapolis, MN.
11. **Cheng C.**, & Kibbe M.M. (April, 2021). Children use the solution to non-symbolic arithmetic computations to balance unequal sets. Poster presented at the *Biennial Meeting of the Society for Research in Cognitive Development*, Minneapolis, MN.
12. **Cheng C.**, & Kibbe M.M. (January, 2021). Representational precision of different non-symbolic arithmetic operations in young children. Poster presented at the *Budapest CEU Conference on Cognitive Development*, Budapest, Hungary.
13. Kaldy Z., **Cheng C.**, & Blaser E. (January, 2021). Delayed Match Retrieval for testing infants’ working memory: A five-year retrospective. Poster presented at the *Budapest CEU Conference on Cognitive Development*, Budapest, Hungary
14. **Cheng C.**, Kaldy Z., & Blaser E. (July, 2020). 9-month-old infants’ working memory tested with

multimodal stimuli with sound/shape correspondence. Poster presented at *International Conference on Infant Studies*, Glasgow, UK.

15. **Cheng C.**, & Kibbe M.M. (May, 2020). Different types of mental manipulation of visual number representations differentially impact representational precision. Poster presented at *Annual Meeting of Vision Science Society*, St. Pete Beach, FL.
16. **Cheng C.**, Kaldy Z., & Blaser E. (October, 2019). The development of Visual Working Memory over the second year of life. Poster presented at *Cognitive Development Society*, Louisville, KY.
17. **Cheng C.**, Kaldy Z. & Blaser E. (March, 2019). Robust Visual Working Memory for object features in 2.5-year olds. Poster presented at *Biennial Meeting of the Society for Research in Cognitive Development*, Baltimore, MD.
18. **Cheng C.**, Kaldy Z. Dhungana S. & Blaser E. (January, 2019). The development of Visual Working Memory over the second year of life. Poster presented at *Budapest CEU Conference on Cognitive Development*, Budapest, Hungary.
19. **Cheng C.**, Kaldy Z. & Blaser E. (June, 2018). Using eye movement and pupillometry to uncover the role of endogenous attention in VWM. Poster presented at the *International Conference on Infant Studies*, Philadelphia, PA.
20. **Cheng C.**, Kaldy Z., Dhungana S. & Blaser E. (June, 2018). Successful updating of object-location bindings in Visual Working Memory in 20- and 25-month olds. Poster presented at the *International Conference on Infant Studies*, Philadelphia, PA.
21. **Cheng C.**, Kaldy Z., & Blaser E. (October, 2017). The role of similarity in toddlers' Visual Working Memory representations. Poster presented at the *Biennial Meeting of the Cognitive Development Society*, Portland, OR.
22. **Cheng C.**, Kaldy Z., Dhungana S., & Blaser E. (April, 2017). Using Object History to Predict Future Behavior: Are Young Infants Essentialists? Poster presented at the *Biennial Meeting of the Society for Research in Child Development*, Austin, Texas
23. **Cheng C.**, Kaldy Z., & Blaser E. (May, 2016). Development of Visual Working Memory in 13- to 16-month olds in an anticipatory looking task. Poster presented at the *International Conference on Infant Studies*, New Orleans, LA
24. **Cheng C.**, Kaldy Z., & Blaser E. (May, 2016). Accounting for cognitive effort in a visual working memory task in 13- and 15-month old infants. Poster presented at the *Annual Meeting of Vision Science Society*, St. Pete Beach, Florida.
25. Hong F., Doan S., Sang B., **Cheng C.**, Ku Y. X. (July, 2014). Are Contextual Effects on Facial Recognition Altered by Participants' Mood? A Cross-Culture Study. Poster presented at the *International Society for the Study of Behavioral Development*, Shanghai, China.

## INVITED TALKS

---

1. **Cheng C.** (July 25, 2023). Examining the computational capacity of non-symbolic subtractive operations in preschool children. Talk given at the Developing Minds Lab, Boston University.
2. **Cheng C.** (June 24, 2023). Understanding the exact arithmetic ability in 3-year-olds. Invited talk given at the CogSci 2023 Hong Kong Meetup & Workshop. The Chinese University of Hong Kong (CUHK), Hong Kong.
3. **Cheng C.** (July 2, 2022). Mental manipulation of object representation in early development. Invited talk given at “心青年” Symposium at School of Psychological and Cognitive Sciences, Peking University.
4. Kibbe M.M., & **Cheng C.** (January 31, 2022). True arithmetic with non-symbolic representations of quantity. Talk presented at the *McDonnell combination workshop*.

5. **Cheng C.** (October 26, 2020). Mental manipulation of working memory in young children: a comparison between in-person data and online data. Invited talk given at Baby Lab at University of Massachusetts Boston.
6. **Cheng C.** (October 8, 2020). Development of representational precision of Approximate Number System solutions. Invited talk given at Cognitive Development Laboratory, Rutgers University.
7. **Cheng C.** (April, 2018). Tracking 'what' goes 'where': how do toddlers update object representations in visual working memory. Invited talk given at Developing Minds Lab, Boston University.
8. **Cheng C.** (May, 2016). Development of Visual Working Memory in 13- to 15-months old in an anticipatory looking task. Talk given at Mentored Research Presentation, Developmental and Brain Sciences Program, University of Massachusetts Boston.

## **TEACHING EXPERIENCE**

---

### **Instructor of Record**

#### ***HKUST:***

Research Methods in Psychological Science ( <i>SOSC 1990</i> )	Spring, Fall, 2023
Developmental Psychology ( <i>SOSC 2990</i> )	Fall, 2022, 2023

#### ***UMass Boston:***

Introduction to Behavioral Research ( <i>PSYCH 201</i> )	Fall, 2017; Spring, 2018
--	--------------------------

### **Teaching Assistant**

Statistics ( <i>PSYCH 370</i> ) (x3)	2018 - 2019
Perception ( <i>PSYCH 255</i> ) (x5)	2014 - 2017
Infancy and Childhood Development ( <i>PSYCH 241</i> )	Fall, 2015

### **Guest Lecturer**

On <i>Infant Development</i> , Infancy and Child Development ( <i>PSYCH 241</i> )	Fall, 2021
On <i>Survey Method</i> , Introduction to Behavioral Research ( <i>PSYCH 201</i> )	Summer, 2018
On <i>Selective Attention</i> , Perception ( <i>PSYCH 255</i> )	Spring, 2017
On <i>Emotion Regulation</i> , Developmental Psychology	Spring, 2014

## **MENTORING EXPERIENCE**

---

### **Students mentored at HKUST:**

2023-

#### *Undergraduates:*

Wailing Shek (Fall 2023 -)  
 Sumin Park (Fall 2023 -)  
 Hongdian Zhang (Summer 2023 -)  
 Pui Ka Mui (Summer 2023 -)  
 Hanyu Jiang (Spring 2023 -)  
 Yishan Ding (Spring 2023 -)  
 Keke Cai (Spring 2023 -)

### **Students mentored at Boston University:**

Emma Hejtmanek (Fall 2022)	2019-2022
Mia Boak (Summer 2022)	
Eleanor Myers (Summer 2022)	
Anya Lydon (Spring 2022 – Summer 2022)	
Angela Lee (Spring 2021 – Fall 2022)	

Angelina Not (Spring 2021 – Spring 2022)  
 Rakiya Washington (Spring 2021 – Spring 2022)  
 Vivien Jiang (Spring 2021 – Spring 2022)  
 Sharde Johnson (Summer 2021)  
 Anika Kumar (Summer 2021)  
 Annie Deng (Summer 2021)  
 Shiba Esfand (2020-2021)  
 Jiaqi Zhao (2020-2021)  
 Jannellie Rivera (Fall 2019)

**Students mentored at University Massachusetts Boston:** 2014-2019  
 Natalia Sabogal, Laurie Dervil, Virginia Gosal, Yakira Florian  
 Undergraduate Mentor, Psychology Connections Committee 2014-2016

## **HONORS / AWARDS**

---

**The Hong Kong University of Science and Technology:**  
 HKUST Postdoctoral Fellowship Matching Fund (HKD 162,000) 2023

**University of Massachusetts Boston:**  
 Scholarly Support Fund, Graduate Employee Organization (USD 500) 2018  
 Doctoral Dissertation Grant (USD2,000) 2018  
 Professional Development Grant, Graduate Student Assembly (USD 500) (x3) 2016 - 2018  
 First Year Fellowship (USD 1,000) 2014

**East China Normal University:**  
 National Prize Scholarship for Graduate Student (RMB 20,000) 2013

**Zhejiang University:**  
 National Prize Scholarship for Undergraduate Student (RMB 8,000) 2009  
 Overseas Exchange Fellowship 2009

## **PROFESSIONAL SERVICES**

---

**Service to Field:**

**Ad hoc review:** 2018-  
*Developmental Psychology, Infant Behavior and Development, Frontiers in Psychology, Journal of Experimental Child Psychology, Journal of Cognition and Development, Intelligence, British Journal of Developmental Psychology (co-reviewer), Berk: Infants and Children, 6<sup>th</sup> edition (co-reviewer), Annual conference of Cognitive Science Society, Biennial conference of Cognitive Development Society, Annual conference of Cognitive Development Center at CEU*

**Service to University:**

**UMass Boston:**

Internal Professional Service: Advisor & Proctor, Department of Psychology 2016  
 Neuroscience Graduate Student Association Treasurer 2015

## **Professional Affiliations**

---

Society for Research on Child Development, International Congress of Infant Studies, Cognitive Science Society, Cognitive Development Society, Visual Science Society

## References

---

**Dr. Erik Blaser** (PhD Advisor)

Department of Psychology, University of Massachusetts Boston

[erik.blaser@umb.edu](mailto:erik.blaser@umb.edu)

**Dr. Zuzsa Káldy** (PhD Co-advisor)

Department of Psychology, University of Massachusetts Boston

[zsuzsa.kaldy@umb.edu](mailto:zsuzsa.kaldy@umb.edu)

**Dr. Melissa Kibbe** (Postdoc Advisor)

Department of Psychological and Brain Sciences, Boston University

[kibbe@bu.edu](mailto:kibbe@bu.edu)