

## GAO, Jie PhD

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### Education

- Oct. 2017 – Sep. 2020 **DSc** in Primatology and Wildlife Research, Primate Research Institute, Graduate School of Science, Kyoto University, Japan  
Thesis: Body Perception in Chimpanzees: A Comparative-Cognitive Study. Advisors: Prof. TOMONAGA Masaki and Prof. ADACHI Ikuma
- Oct. 2015 – Sep. 2017 **MSc** in Primatology and Wildlife Research, Primate Research Institute, Graduate School of Science, Kyoto University, Japan  
Thesis: The body inversion effect in chimpanzees: Configural processing of conspecifics' bodies. Advisor: Prof. TOMONAGA Masaki
- Sep. 2011 – July 2015 **BSc** in Biological Sciences, School of Life Sciences, Peking University, China  
Thesis: The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*). Advisors: Prof. TOMONAGA Masaki and Prof. SU Yanjie

### Research Summary

I'm interested in animals' social and physical cognition from comparative and developmental perspectives. My current project investigates how chimpanzees and humans, including children, perceive the important social cue, bodies, and their knowledge about body composition and structure. My previous work included development and species difference in learning the rule of the rock-paper-scissors game in these two species, and cognitive abilities in François' langurs.

### Peer-Reviewed Publications (Google Scholar: <https://scholar.google.com/citations?user=BtHFrdwAAAJ&hl=en>)

Gao, J., & Tomonaga, M. (2020). How chimpanzees and children perceive other species' bodies: comparing the expert effect. *Developmental Science*: e12975. <https://doi.org/10.1111/desc.12975>

Gao, J., Kawakami, F., & Tomonaga, M. (2020). Body perception in chimpanzees and humans: The expert effect. *Scientific Reports*, 10(1): 7148. <https://doi.org/10.1038/s41598-020-63876-x>

Gao, J., & Tomonaga, M. (2020). Body perception in chimpanzees (*Pan troglodytes*): The effect of body structure changes. *Journal of Comparative Psychology*, 134(2), 222–231. <https://doi.org/10.1037/com0000214>

Gao, J., & Tomonaga, M. (2018). The body inversion effect in chimpanzees (*Pan troglodytes*). *PLoS ONE*, 13(10): e0204131. <https://doi.org/10.1371/journal.pone.0204131>

Gao, J., Su, Y., Tomonaga, M., Matsuzawa, T. (2018). Learning the rules of the rock–paper–scissors game: chimpanzees versus children. *Primates* 59(1), 7-17. <https://doi.org/10.1007/s10329-017-0620-0>

Chen, T.\*, Gao, J.\*, Tan, J., Tao, R., Su, Y. (2017). Variation in gaze-following between two Asian colobine monkeys. *Primates* 58(4), 525-534. <https://doi.org/10.1007/s10329-017-0612-0> (\*Joint first-author)

## Professional Experiences

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|------------------|--|
| Apr. 2020        | <b>Peer Review</b><br>Reviewed a book chapter on body perception   |
| 2019             | <b>Organizing Committee Member</b><br>International Student Symposium on Animal Behavior & Cognition (Dec. 2 – 4, Kyoto, Japan)<br>Co-developed the sessions and workshops; participated in advertisement and participant affairs                |
| 2019             | <b>Symposium organizer</b><br>Symposium “Cognitive tasks in captivity: studying primate cognition and serving as enrichment” at the 14th International Conference on Environmental Enrichment (June 22 – 26, Kyoto, Japan)<br>Organizer and host |
| Apr. – Sep. 2019 | <b>Teaching Assistant</b><br>Assisted with curriculum design and activities of the CICASP (Center for International Collaboration and Advanced Studies in Primatology) Seminar in Scientific Communication                                       |
| Nov. 2018        | <b>Field Work</b><br>International Training Program on Terrestrial & Aquatic Wildlife and Primate Conservation in Sri Lanka<br>Observed wild primates and other wildlife in various habitats   |

- June – Aug. 2018      **Co-supervisor**  
Co-supervised intern undergraduate student, Georgia Sandars from Oxford University on developing an independent research project (spatial representations of time in chimpanzees) at Primate Research Institute, Kyoto University
- Sep. 2016      **Field Work**  
Gombe National Park, Selous Game Reserve, Tanzania  
Observed wild chimpanzees (*Pan troglodytes*) and other wild animals
- Oct. 2015 – Present      **Chimpanzee husbandry work**  
Primate Research Institute, Kyoto University, Inuyama, Aichi, Japan  
Daily feeding and caring for captive chimpanzees
- 2014 – 2015      **Intern Student**  
Primate Research Institute, Kyoto University, Inuyama, Aichi, Japan  
Participated in chimpanzee cognition experiments and seminars
- 2013 – 2015      **Research Assistant**  
Developmental and Comparative Psychology Laboratory, Department of Psychology, Peking University, Beijing, China  
Assisted with cognitive experiments in François' langurs; assisted in writing grant proposals and manuscripts; participated in seminars
- Aug. 2013      **Teaching Assistant**  
Summer Course of Neuroscience, Center for Life Sciences of Peking University and Tsinghua University, Beijing, China  
Assisted with speaker invitation, student affairs, and curriculum design
- July 2013      **Research Assistant, Field Work**  
Chongzuo Biodiversity Research Institute, Peking University, Chongzuo, Guangxi, China  
Assisted in translating book chapters; observed wild white-headed langurs (*Trachypithecus poliocephalus*)
- Apr. 2013      **Field Work**  
Shennongjia Forestry District, Hubei, China  
Observed wild golden snub-nosed monkeys (*Rhinopithecus roxellana*)

## Funding Awards

Oct. 2020 – Sep. 2022	JSPS (Japan Society for the Promotion of Science) Postdoctoral Fellowship for Overseas Researchers
Apr. 2018 – Sep. 2020	JSPS Doctoral Course Student (DC1) Research Fellowship; Grants-in-Aid for Scientific Research (KAKENHI) 18J21474 (2,800,000 JPY) <a href="https://kaken.nii.ac.jp/grant/KAKENHI-PROJECT-18J21474/">https://kaken.nii.ac.jp/grant/KAKENHI-PROJECT-18J21474/</a>
Oct. 2015 – Sep. 2020	Leading Graduate Program in Primatology and Wildlife Science, Kyoto University, Japan Society for the Promotion of Science
Oct. 2017 – Mar. 2018	Scholarship for Doctoral Course, Ministry of Education, Culture, Sports, Science and Technology, Japan (#152121)
Oct. 2015 – Sep. 2017	Scholarship for Master Course, Ministry of Education, Culture, Sports, Science and Technology, Japan (#152121)
June 2013 – Oct. 2014	National Training Program of Innovation and Entrepreneurship for Undergraduates, Ministry of Education of the People's Republic of China (10,000 CNY for research)

## Awards

Mar. 2019	President Award, Kyoto University (research excellence)
Dec. 2018	Travel Award of the 3rd Meeting on Face and Body Studies, Naha, Okinawa, Japan
Oct. 2018	Young Scholar Oral Presentation Prize at the 6th Asian Primates Symposium & 5th Asian (Indo-Chinese) Primate Conservation Symposium, Dali, Yunnan, China
Oct. 2018	Young Scholar Award at the 6th Asian Primates Symposium & 5th Asian (Indo-Chinese) Primate Conservation Symposium, Dali, Yunnan, China
Sep. 2018	The First Prize of Oral Presentation at the 10th International Symposium on Primatology and Wildlife Science, Kyoto, Japan

- July 2018 *Primates* Social Impact Award 2018: Jie Gao, Yanjie Su, Masaki Tomonaga, Tetsuro Matsuzawa (2018). Learning the rules of the rock-paper-scissors game: chimpanzees versus children. *Primates*.
- Jan. 2018 The Best Oral Presentation Award (English Presentation) at the 62nd Primates conference, Inuyama, Aichi, Japan
- Sep. 2017 The First Prize of Oral Presentation at the 8th International Symposium on Primatology and Wildlife Science, Inuyama, Aichi, Japan
- Aug. 2017 The First Prize of Research Award for Young Scientists at the 77th Annual Meeting of the Japanese Society for Animal Psychology in the Joint Meeting "KOUDOU 2017", Tokyo, Japan
- Mar. 2017 The First Prize of Oral Presentation at the 7th International Symposium on Primatology and Wildlife Science, Kyoto, Japan
- Jan. 2016 The Best Poster Presentation Award at the 60th PRIMATES Conference, Inuyama, Aichi, Japan

## Presentations at Academic Conferences

### International

Gao, J. & Tomonaga, M. (2020). Body Perception in Chimpanzees: A Comparative-Cognitive Study. *The 13th International Symposium on Primatology and Wildlife Science*, Kyoto, Japan, 29 February – 2 March. (Oral; Symposium canceled due to COVID-19 outbreak)

Gao, J. & Tomonaga, M. (2019). How Do Chimpanzees and Children Perceive Other Species' Bodies. *International Student Symposium on Animal Behavior & Cognition*, Kyoto, Japan, 2 – 4 December. (Poster)

Gao, J. & Tomonaga, M. (2019). Chimpanzees can detect strangeness in bodies: an eye-tracking study. *The 12th International Symposium on Primatology and Wildlife Science*, Inuyama, Aichi, Japan, 20 – 22 September. (Poster)

Gao, J. & Tomonaga, M. (2019). How Do Chimpanzees and Children Perceive Other Species' Bodies. *The European Federation for Primatology & Primate Society of Great Britain (EFP/PSGB) International Conference*, Oxford, UK, 8 – 11 September. (Poster)

Sandars, G., Gao, J., & Matsuzawa, T. (2019). Spatial Representations of Time in Chimpanzees: A STEARC-Like Effect. *The European Federation for Primatology & Primate Society of Great Britain (EFP/PSGB) International Conference*, Oxford, UK, 8 – 11 September. (Poster)

Gao, J., & Tomonaga, M. (2019). The body inversion effect in chimpanzees (*Pan troglodytes*). *The 42nd edition of the European Conference on Visual Perception*, Leuven, Belgium, 25 – 29 August. (Poster)

Gao, J., & Tomonaga, M. (2019). How chimpanzees perceive other species: embodied and visual expertise. *The 14th International Conference on Environmental Enrichment*, Kyoto, Japan, 22 – 26 June. (Oral)

Gao, J., & Tomonaga, M. (2019). The understanding of body structures in chimpanzees. *The 11th International Symposium on Primatology and Wildlife Science*, Kyoto, Japan, 1 – 3 March. (Poster)

Gao, J., & Tomonaga, M. (2018). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 6th Asian Primates Symposium & 5th Asian (Indo-Chinese) Primate Conservation Symposium*, Dali, Yunnan, China, 19 – 23 October. (Oral)

Gao, J., & Tomonaga, M. (2018). The Understanding of Body Structures in Chimpanzees. *The 10th International Symposium on Primatology and Wildlife Science*, Kyoto, Japan, 22 – 24 September. (Oral)

Gao, J., & Tomonaga, M. (2018). Chimpanzees (*Pan troglodytes*) show the body inversion effect. *The 27th International Primatological Society Congress*, Nairobi, Kenya, 19 – 25 August. (Oral)

Gao, J., & Tomonaga, M. (2018). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 25th International Conference on Comparative Cognition*, Melbourne, FL, USA, 4 – 7 April. (Oral)

Gao, J., & Tomonaga, M. (2018). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 9th International Symposium on Primatology and Wildlife Science*, Kyoto, Japan, 3 – 5 March. (Oral)

Gao, J., & Tomonaga, M. (2017). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 8th International Symposium on Primatology and Wildlife Science*, Inuyama, Aichi, Japan, 26 – 28 September. (Oral)

Gao, J., Su, Y., Tomonaga, M., & Matsuzawa, T. (2017). Learning the rules of the rock–paper–scissors game: Comparison between chimpanzees and human children. *The 7th International Symposium on Primatology and Wildlife Science*, Kyoto, Japan, 2-5 March. (Oral)

Gao, J., Su, Y., Tomonaga, M., & Matsuzawa, T. (2016). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*). *The 6th International Symposium on Primatology and Wildlife Science*, Kyoto, Japan, 12-15 September. (Poster)

Gao, J., Tomonaga, M., Matsuzawa, T., & Su, Y. (2016). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*): Test for Intransitive Inference Using the Computer Controlled Discrimination Task. *Joint meeting of the International Primatological Society and the American Society of Primatologists*, Chicago, IL, USA, 21-27 August. (Poster)

Gao, J., Tomonaga, M., Matsuzawa, T., & Su, Y. (2016). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*): Test for Intransitive Inference Using the Computer Controlled Discrimination Task. *The 31st International Congress of Psychology*, Yokohama, Japan, 24 – 29 July. (Oral)

Gao, J., Su, Y., Tomonaga, M., & Matsuzawa, T. (2016). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*). *The 5th International Symposium on Primatology and Wildlife Science*, Kyoto, Japan, 3-6 March. (Oral)

Gao, J., Tomonaga, M., Matsuzawa, T., & Su, Y. (2015). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*). *The 4th International Symposium on Primatology and Wildlife Science*, Kyoto, Japan, 21-22 July. (Poster)

Gao, J., Tomonaga, M., Matsuzawa, T., & Su, Y. (2015). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*): Decision Making in Competitive Contexts. *The 3rd International Symposium on Primatology and Wildlife Science*, Kyoto, Japan, 5-8 March. (Poster)

### **Domestic (in Japan; language: English)**

Gao, J., & Tomonaga, M. (2020). Chimpanzees detect strangeness of location and appearance of body parts: An eye-tracking study. *The 64th Primates Conference*, Inuyama, Aichi, Japan, 25 – 26 January. (Poster)

Gao, J., & Tomonaga, M. (2019). Chimpanzees detect strangeness in bodies: an eye-tracking study. *The 79th Annual Meeting of the Japanese Society for Animal Psychology*, Kawasaki, Kanagawa, Japan, 11 – 13 October. (Oral; Session canceled due to Typhoon Hagibis)

Gao, J., & Tomonaga, M. (2019). How do chimpanzees and children perceive other species: use of embodied and visual experience. *The 35th Annual Congress of the Primate Society of Japan*, Kumamoto, Japan, 12 – 14 July. (Oral)

Gao, J., & Tomonaga, M. (2019). The understanding of body structures in chimpanzees: conspecifics and other species. *The 63rd Primates Conference*, Inuyama, Aichi, Japan, 26 – 27 January. (Poster)

Gao, J., & Tomonaga, M. (2018). The understanding of body structures in chimpanzees. *The 3rd Meeting on Face-Body Studies*, Naha, Okinawa, Japan, 26 – 27 December. (Poster)

Gao, J., & Tomonaga, M. (2018). The Understanding of Body Structures in Chimpanzees. *The 78th Annual Meeting of the Japanese Society for Animal Psychology*, Higashihiroshima, Hiroshima, Japan, 28 – 30 August. (Oral)

Gao, J., & Tomonaga, M. (2018). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 34th Congress of the Primate Society of Japan*, Tokyo, Japan, 13 – 15 July. (Oral)

Gao, J., & Tomonaga, M. (2018). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 2nd Meeting on Face-Body Studies*, Tokyo, Japan, 9 – 10 June. (Poster)

Gao, J., & Tomonaga, M. (2018). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 62nd Primates Conference*, Inuyama, Aichi, Japan, 27 – 28 January. (Oral)

Gao, J., & Tomonaga, M. (2017). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 81st Annual Convention of the Japanese Psychological Association*, Kurume, Fukuoka, Japan, 20 – 22 September. (Poster)

Gao, J., & Tomonaga, M. (2017). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 77th Annual Meeting of the Japanese Society for Animal Psychology in the Joint Meeting “KOUDOU 2017”*, Tokyo, Japan, 30 August – 1 September. (Oral)

Gao, J., Su, Y., Tomonaga, M., & Matsuzawa, T. (2017). Learning the rock-paper-scissors game rule in chimpanzees and children. *The 61st Primates Conference*, Inuyama, Aichi, Japan, 28-29 January. (Poster)

Gao, J., Su, Y., Tomonaga, M., & Matsuzawa, T. (2016). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*). *The 32nd Congress of the Primate Society of Japan*, Kagoshima, Japan, 15 – 17 July. (Oral)

Gao, J., Su, Y., Tomonaga, M., & Matsuzawa, T. (2016). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*). *The 60th Primates Conference*, Inuyama, Aichi, Japan, 30 – 31 January. (Poster)



Gao, J., Tomonaga, M., Matsuzawa, T., & Su, Y. (2015). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*). *The 31st Congress of the Primate Society of Japan*, Kyoto, Japan, 18 - 20 July. (Poster)

Gao, J., Tomonaga, M., Matsuzawa, T., & Su, Y. (2015). Gaze Following in Two Species of Colobine Monkeys. *The 59th Primates Conference*, Inuyama, Aichi, Japan, 31 January – 1 February. (Oral)

Gao, J., Chen, T., & Su, Y. (2014). The Personality of François' Langur (*Trachypithecus francoisi*): The First Glance. *The 74th Annual Meeting of the Japanese Society for Animal Psychology*, Kyoto, Japan, 19 – 21 July. (Poster)

Chen, T., Su, Y., & Gao, J. (2014). The Comparative Inhibitory Control Ability of Two Kinds of Colobus. *The 74th Annual Meeting of the Japanese Society for Animal Psychology*, Kyoto, Japan, 19 – 21 July. (Oral)

## Outreach Endeavor

### Popular science articles

(In Japanese) ガオ ジエ (2017). *じゃんけんのルールの学習: チンパンジー対子ども* (Learning the rules of the rock-paper-scissors game: chimpanzees versus children). *モンキー*. 公益財団法人日本モンキーセンター. Vol. 2: 70-71. (Translated by 川口ゆり)

(In Japanese) 高潔・友永雅己・松沢哲郎 (2017). *チンパンジーとヒトのじゃんけんの学習* (Learning the rules of the rock-paper-scissors game in chimpanzees and children). *科学*. 岩波書店. Vol. 87(3): 244-245. (Translated by 川口ゆり)

(In Chinese) 高洁, 殷章元. (2013). *修补匠塑造的世界* (The world shaped by the tinker-evolution). *生命世界*. 高等教育出版社. Vol. 288: 18-21.

### Activities

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|-----------|--|
| Aug. 2019 | Participated in preparing science exhibitions “Animals in China” and “Animal Locomotion”<br>Kids Jamboree, Tokyo, Japan  |
| Oct. 2017 | Lecture for the public. <i>Learning the rules of the rock-paper-scissors game: Chimpanzees versus children</i> .<br>Monkey Sunday Salon, Japan Monkey Centre, Inuyama, Japan |

Feb. 2017

Lecture for visiting middle school students from China. *Working with chimpanzees.*

Primate Research Institute, Kyoto University, Inuyama, Japan

## Languages

Native in Chinese. Fluent in English. Beginner in Japanese.

## Technical Skills

Programming (Visual Basic, C), statistic software (R), Tobii eye tracker, image editing (Photoshop, Pixelmator)

## Academic Societies

International Primatological Society

Primate Society of Japan

The Japanese Society for Animal Psychology