

Gao, Jie PhD

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<https://sites.google.com/view/gaojie>

Education and Employment

- Oct. 2020 – Present **JSPS (Japan Society for the Promotion of Science) International Postdoctoral Fellow** at Primate Research Institute, Kyoto University
Host: Dr. Ikuma Adachi
- Oct. 2017 – Sep. 2020 Graduate School of Science, Kyoto University (**Doctor of Science**)
Thesis: Body Perception in Chimpanzees: A Comparative-Cognitive Study. Advisors: Dr. Ikuma Adachi and Dr. Masaki Tomonaga
- Apr. 2018 – Sep. 2020 **JSPS Doctoral Course Student Research Fellow (DC1)**
- Oct. 2015 – Sep. 2017 Graduate School of Science, Kyoto University (**Master of Science**)
Thesis: The body inversion effect in chimpanzees: Configural processing of conspecifics' bodies. Advisor: Dr. Masaki Tomonaga
- Oct. 2015 – Sep. 2020 **Leading Graduate Program** in Primatology and Wildlife Science of the Program for Leading Graduate Schools of Kyoto University
- Sep. 2011 – July 2015 School of Life Sciences, Peking University (**Bachelor of Science**)
Thesis: The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*). Advisors: Dr. Masaki Tomonaga and Dr. Yanjie Su

Research Summary

I am interested in how animals (including humans) perceive and understand the world they live in. My research tackles this topic from both comparative and developmental perspectives. My current project investigates how chimpanzees and humans, including children, perceive the important social cue, bodies, and their knowledge of body composition and structure, in answering the broad question of how animals coordinate themselves with the environment.

My previous work included a comparative study in chimpanzees and children in learning the rule of the rock-paper-scissors game, and a study in François' langurs about the function of social factors in shaping cognitive abilities.

Peer-Reviewed Publications

Google Scholar Profile: <https://scholar.google.com/citations?user=BtHFrdwAAAAJ&hl=en>

[7] [Gao, J.](#), Adachi, I., & Tomonaga, M. (in revision). Chimpanzees (*Pan troglodytes*) detect strange body parts: an eye-tracking study.

[6] [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>

[5] [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>

[4] [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>

[3] [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>

[2] [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>

[1] 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

Teaching and supervising

Dec. 2021 - Jan. 2022 (scheduled) **Lecture on social cognition**
Part of the comparative cognition course at Kyoto University

Nov. 2021 (scheduled) **Lecture on zoos and cognitive tests**
Part of the zoo biology course at Kyoto University

- Apr. – Sep. 2019 **Teaching assistant**
 CICASP (Center for International Collaboration and Advanced Studies in Primatology) Seminar in Scientific Communication at Primate Research Institute, Kyoto University
- June – Aug. 2018 **Co-supervisor**
 Co-supervised undergraduate intern student, Ms. Georgia Sandars, from University of Oxford on developing an original research project (spatial representations of time in chimpanzees) at Primate Research Institute, Kyoto University
- 2015 – 2020 **Tutor in the lab**
 Guided lab visits and provided instructions for international and domestic visitors and intern students, university undergraduate students (Liberal Arts and Sciences Seminar) and graduate students (Psychology Practice Course)
- Aug. 2013 **Teaching assistant**
 Summer Course of Neuroscience, Center for Life Sciences of Peking University and Tsinghua University, Beijing, China

Academic community services

- Apr. 2020 **Peer review**
 Reviewed a book chapter on body perception
- 2019 **Symposium organization**
 International Student Symposium on Animal Behavior & Cognition (Dec. 2 – 4, Kyoto, Japan)
 Co-developed the sessions and workshops; engaged in advertisement and participant affairs; chaired one workshop
- 2019 **Symposium organization**
 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)
 Organizer and chair

Institution services

Apr. 2016 – Mar. 2017 **Seminar coordination**
Psychology seminar of Department of Cognitive Science, Primate Research Institute, Kyoto University
Coordinated the schedule and progress of the seminar

2015 – Present **Lab management**
Primate Research Institute, Kyoto University
Managed lab equipment and data

2015 – 2020 **Chimpanzee husbandry work**
Primate Research Institute, Kyoto University
Daily one hour feeding and caring for captive chimpanzees

Previous research experiences

2014 – 2015 **Intern student**
Primate Research Institute, Kyoto University
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

July 2013 **Research assistant**
Chongzuo Biodiversity Research Institute, Peking University, Chongzuo, Guangxi, China
Assisted in translating book chapters on Chinese white dolphins (*Sousa chinensis*)

Field work experiences

Nov. 2018 International Training Program on Terrestrial & Aquatic Wildlife and Primate Conservation in Sri Lanka
Observed wild primates and other wildlife in various habitats

Sep. 2016 Gombe National Park and Selous Game Reserve, Tanzania
Observed wild chimpanzees (*Pan troglodytes*) and other wild animals

- July 2013 Chongzuo Biodiversity Research Institute, Peking University,
Chongzuo, Guangxi, China
Observed wild white-headed langurs (*Trachypithecus poliocephalus*)
- Apr. 2013 Shennongjia Forestry District, Hubei, China
Observed wild golden snub-nosed monkeys (*Rhinopithecus roxellana*)

Funding Awards

- Oct. 2020 – Sep. 2022 Grant-in-Aid for JSPS Fellows (KAKENHI) 20F20310 (2,200,000 JPY;
applied with the host Dr. Adachi)
<https://kaken.nii.ac.jp/en/grant/KAKENHI-PROJECT-20F20310/>
- Apr. 2018 – Mar. 2021 Grant-in-Aid for JSPS Fellows (KAKENHI) 18J21474 (2,800,000 JPY;
terminated in Sep. 2020 with graduation)
<https://kaken.nii.ac.jp/grant/KAKENHI-PROJECT-18J21474/>
- Oct. 2015 – Sep. 2020 Leading Graduate Program in Primatology and Wildlife Science, Kyoto
University, Japan Society for the Promotion of Science (Ad-libitum
research funding on request)
- Oct. 2017 – Mar. 2018 Government Scholarship for Doctoral Course, Ministry of Education,
Culture, Sports, Science and Technology, Japan (#152121)
- Oct. 2015 – Sep. 2017 Government 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

(Presenters were the first author, if not specified.)

International conferences

[22] [Gao, J.](#), & Tomonaga, M. (2021). Chimpanzees detect strange body parts: an eye-tracking study. *The 28th International Conference on Comparative Cognition*, Online, 7 April – 10 April. (Oral presentation)

- [21] Gao, J., & Tomonaga, M. (2020). Body Perception in Chimpanzees: A Comparative-Cognitive Study. *The 13th International Symposium on Primatology and Wildlife Science*, Online, 29 February – 2 March. (Oral)
- [20] 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 presentation)
- [19] 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)
- [18] 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)
- [17] 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)
- [16] 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)
- [15] 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)
- [14] 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)
- [13] 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)
- [12] 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)

- [11] 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)
- [10] 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)
- [9] 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)
- [8] 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)
- [7] 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)
- [6] 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)
- [5] 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)
- [4] 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)
- [3] 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*, Inuyama, Aichi, Japan, 3 – 6 March. (Oral)
- [2] 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)

[1] 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 conferences (in Japan; presenting language: English)

[23] Gao, J., & Adachi, I. (2021). A body-part matching task in chimpanzees. *The 81st Annual Meeting of the Japanese Society for Animal Psychology*, Online, 30 – 31 October. (Poster)

[22] Gao, J., & Tomonaga, M. (2020). Chimpanzees detect strange body parts: an eye-tracking study. *The 36th Annual Congress of the Primate Society of Japan*, Online, 4 – 6 December. (Poster)

[21] Gao, J., & Tomonaga, M. (2020). Chimpanzees detect strange body parts: an eye-tracking study. *The 80th Annual Meeting of the Japanese Society for Animal Psychology*, Online, 11 – 13 October. (Poster)

[20] 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)

[19] 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. (Session canceled due to Typhoon Hagibis)

[18] 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)

[17] 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)

[16] 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)

[15] 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)

- [14] 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)
- [13] 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)
- [12] Gao, J. & Tomonaga, M. (2018). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *The 62nd Primates Conference*, Inuyama, Aichi, Japan, 27 – 28 January. (Oral)
- [11] Gao, J. & Tomonaga, M. (2017). The Body Inversion Effect in Chimpanzees (*Pan troglodytes*). *SAGA (Support for African / Asian Great Apes) 20 Symposium*, Inuyama, Aichi, Japan, 4 – 5 November. (Poster)
- [10] Tomonaga, M. & Gao, J. (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; presented by Gao)
- [9] 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)
- [8] 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)
- [7] 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)
- [6] 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)
- [5] Gao, J., Tomonaga, M., Matsuzawa, T., & Su, Y. (2015). The Rock-Paper-Scissors Game in Chimpanzees (*Pan troglodytes*). *SAGA (Support for African / Asian Great Apes) 18 Symposium*, Kyoto, Japan, 14 – 15 November. (Poster)
- [4] 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)

[3] Gao, J., Tan, J., Chen, T., Tao, R., & Su, Y. (2015). Gaze Following in Two Species of Colobine Monkeys. *The 59th Primates Conference*, Inuyama, Aichi, Japan, 31 January – 1 February. (Oral)

[2] 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)

[1] 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)

Outreach Endeavor

Popular science articles

(In Chinese) 韩宁, 刘杰, 高洁. (2021). 聪明的海洋精灵: 海豚 (Dolphins: smart creatures in the ocean). 森林与人类. *In press*.

(In Japanese) ガオ ジエ. (2017). じゃんけんのルール of 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

Dec. 2021 (scheduled) JSPS Science Dialogue: Lecture for high school students
Fukui Prefectural Katsuyama Senior High School, Katsuyama, Fukui,
Japan

Aug. 2019 Participated in preparing science exhibitions “Animals in China” and
“Animal Locomotion”.
Kids Jamboree, Tokyo, Japan

- Oct. 2017 Lecture for the public. *Learning the rules of the rock–paper–scissors game: Chimpanzees versus children.*
Monkey Sunday Salon, Japan Monkey Centre, Inuyama, Japan
- Feb. 2017 Lecture for international visiting middle school students. *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
Sigma Xi Scientific Research Society