Sholei Croom

pronouns: they/them/theirs
PhD Candidate in Psychological and Brain Sciences
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RESEARCH AREAS

Visual perception, action understanding, physical reasoning, and social cognition.

EDUCATION

2020-2025 **Ph.D Candidate, Psychological and Brain Sciences, Johns Hopkins University**
Advisor: Chaz Firestone
Committee Members: Jason Fischer, Leyla Isik

2022 **M.A., Psychological and Brain Sciences**

2018 **Sc.B hons, Cognitive Science, Brown University**

RESEARCH POSITIONS

2018 - 2020 **Lab Manager & Technical Associate II, Department of Brain and Cognitive Sciences**
Computational Cognitive Science Lab (Principal Investigator: Joshua Tenenbaum)
Massachusetts Institute of Technology

2015 - 2018 **Research Assistant, Department of Cognitive, Linguistic and Psychological Sciences**
3D Information for Perception and Action Lab (Principal Investigator: Fulvio Domini)
Brown University

FELLOWSHIPS

2022 - 2025 **NSF Graduate Research Fellowship Recipient**

2022 **Ford Foundation Fellowship Honorable Mention**

AWARDS

2023 **Student Travel Award,** *CogSci*

2023 **Special Conference Travel Award,** *Department of Psychological and Brain Sciences, Johns Hopkins University*

2023 **Junior Investigator Award,** *Department of Psychological and Brain Sciences, Johns Hopkins University*

2022 **Student Travel Award,** Vision Sciences Society Annual Meeting

2022 **Walter L. Clark Teaching Award,** *Department of Psychological and Brain Sciences, Johns Hopkins University*

PUBLICATIONS

Journal Articles (Published and In Progress):

1. **Croom, S.**, Firestone, C. (in press). Tangled physics: Knots strain intuitive physical reasoning. *Open Mind*.

2. **Croom, S.**, Zhou, H., & Firestone, C. (2023). Seeing and understanding epistemic actions. *Proceedings of the National Academy of Sciences,* 120, e2303162120.

3. **Croom, S.** (2022). Under the hood of depth perception. *Nature Reviews Psychology,* 1(5), 254.

4. Campagnoli, C., **Croom, S.**, & Domini, F. (2017). Stereovision for action reflects our perceptual experience of distance and depth. *Journal of Vision*, 17(9).

5. Melnick, M. D., Park, W. J., **Croom, S**., Chen, S., Batelli, L., Busza, A., ... & Tadin, D. (2020). Online transcranial random noise stimulation improves perception at high levels of visual white noise. bioRxiv, 2020-06.

6. **Croom, S**., Zhou, H., Firestone, C. (in prep). Learning looks different from doing.

7. Chen, S., **Croom, S**., Schauder, K., Yates, J., Tadin, D., & Park, W.J. (in prep). The effects of crowd gaze on visual search.

8. **Croom, S.** (forthcoming). Introducing Critical Vision Science. *Invited Submission to Journal of Vision*.

Refereed Conference Proceedings:

9. **Croom, S.** (in press). Learning or doing? Visual recognition of epistemic vs. pragmatic intent. *Journal of Vision*

10. **Croom, S.** (2023). Making the Case for Critical Vision Science: Beyond Diversity, Equity and Inclusion. *Journal of Vision*, 23(9), 4652.

11. **Croom, S.**, Zhou, H., & Firestone, C. (2023). What does learning look like? Inferring epistemic intent from observed actions. *Journal of Vision*, 23(9), 558.

12. Chen, S., **Croom, S.,** Yates, J., Schauder, K. B., Tadin, D., Park, W. J. (2022). The effects of crowd gaze on visual search. Journal of Vision, 22(14), 3181.

13. **Croom, S.,** & Firestone, C. (2022). Looking tight: Visual judgments of knot strength reveal the limits of physical scene understanding. *Journal of Vision*, 22(14), 3448.

14. **Croom, S.**, Firestone, C. (2021). Tangled Physics: Knots as a challenge for physical scene understanding. *In Proceedings of the 43rd Annual Conference of the Cognitive Science Society*.

15. **Croom, S.**, Firestone, C. (2021). Tangled Physics: Knots as a challenge for physical scene understanding. *Journal of Vision*, 21(9), 2653.

16. Kryven, M., **Croom, S.**, Scholl, B. J., & Tenenbaum, J. (2019). Look out, it's going to fall!: Does physical instability capture attention and lead to distraction?. *In Proceedings of the 41st Annual Conference of the Cognitive Science Society* (p. 3500).

CONFERENCE TALKS, WORKSHOPS AND SYMPOSIA

Invited Talks:

2023 May	Making the case for critical vision science: beyond diversity equity and inclusion. Oral Presentation, Critical Perspectives workshop, 23rd Annual Meeting of the Vision Sciences Society
2023 August	Seeing and understanding epistemic actions. Oral Presentation, APA Convention 2023
2020 July	Integrating structural power and historical contingency into computational frameworks of social behavior. Virtual Presentation, Cognition, Collectives and Human Culture workshop, Cognitive Science Society Virtual Meeting.

Contributed Conference Presentations:

2024 May	Croom, S., Zhou, H., & Firestone, C. Learning or doing? Visual recognition of epistemic vs. pragmatic intent. Poster Presentation, Cognitive Science Society Annual Meeting
2023 July	Croom, S., Zhou, H., & Firestone, C. Seeing and Understanding Epistemic Actions. Oral Presentation, Cognitive Science Society Annual Meeting.
2023 June	Croom, S., Zhou, H., & Firestone, C. Seeing and Understanding Epistemic Actions. Oral Presentation, Annual Meeting of the Society for Philosophy and Psychology.
2023 May	Croom, S., Zhou, H., & Firestone, C. What does learning look like? Inferring epistemic intent from observed actions. Oral Presentation at the Vision Sciences Society Annual Meeting.
2022 Nov.	Croom, S., Firestone, C. Tangled Physics: Knots as a challenge to Physical Scene Understanding. Poster Presentation at OPAM 30.
2022 May	Croom, S., Firestone, C. Looking tight!: Visual judgments of knot strength reveal the limits of physical scene understanding. Poster Presentation at the Vision Sciences Society Annual Meeting
2021 July	Croom, S., Firestone, C. Tangled Physics: Knots as a challenge to Physical Scene Understanding. Virtual Poster Presentation at CogSci2021
2021 May	Croom, S., Firestone, C. Tangled Physics: Knots as a challenge to Physical Scene Understanding. Virtual Poster Presentation at the Vision Sciences Society Annual Meeting

TEACHING

Johns Hopkins University (Teaching Assistant):

2023 spring	Human and Machine Intelligence (Daeyeol Lee)
2022 fall	Intro to Social Psychology (Steve Drigotas)
2022 spring	Advanced Research Design & Analysis (Jeffrey Bowen)
2021 fall	Diversity in Psychology (Deborah Haskins)

Invited Lectures:

2021 - 2024	“Patriarchy: Gender, Sex and Power.” Diversity in Psychology (Deborah Haskins)

UNIVERSITY SERVICE

Johns Hopkins University:

2020 - 2025	Graduate Steering Committee - Cohort Representative, Department of Psychological and Brain Sciences
2022 - 2025	Early Career Colloquium Committee - Department of Psychological and Brain Sciences
2021-2022	PBS Ph.D Applicant Mentorship Program- Department of Psychological and Brain Sciences