JULIAN DE FREITAS

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BIOGRAPHICAL INFORMATION

Born March 16, 1990, Witbank, South Africa
South African and Portuguese Citizen

EMPLOYMENT

Assistant Professor **Harvard Business School**, July 2021 –
Marketing Department

Visiting Researcher **MIT**, Jan 15 – May 15
Brain & Cognitive Science Department
Computational Cognitive Science Lab (PI: Joshua Tenenbaum)

Visiting Researcher **Stanford University**, Summer 2018
Psychology Department
Neuroscience & Artificial Intelligence Lab (PI: Daniel Yamins)

DEGREES

PhD **Harvard University**, 2021 (expected)
Psychology (Advisor: George Alvarez & Steven Pinker)

MSc **University of Oxford**, 2016
Experimental Psychology (Advisors: A. Nobre & G. Humphreys)
Rhodes Scholar

BA **Yale University**, 2013
Cognitive Science (wt. Distinction in major, Advisor: B. J. Scholl)
Magna Cum Laude

HONORS AND AWARDS

Special Commendation, Extraordinary Teaching, Harvard, Spring [Top 10% of teachers awarded in Harvard College]	2020
Goethals Teaching Prize, Harvard, Spring	2020
Goethals Teaching Prize, Harvard, Fall	2019
Travel Award, Society of Philosophy & Psychology	2019
Bok Center Certificate of Teaching Excellence, Harvard, Spring	2019
Goethals Teaching Prize, Harvard, Spring	2019
Goethals Teaching Prize, Harvard, Fall	2018
Bok Center Certificate of Teaching Excellence, Harvard, Spring	2018
Bok Center Certificate of Teaching Excellence, Harvard, Fall	2018
Travel Award, Society of Philosophy & Psychology	2018
Travel Award, Human Behavior & Evolution Society	2015

Alpheus Henry Snow Award, Yale University, $20,000 [1 in University]   2013
Albert E. Angier Prize, Psychology Department, Yale [1 in University]   2013
Friends of Music at Yale Prize, Music Department, Yale [1 in University]   2013
Rhodes Scholar, Southern Africa-at-Large [1 of 6 in Africa]   2012
Summer Fellowship, Psychology Department, Yale University   2012
Richter Summer Fellowship, Yale University   2012
National Honor Society in Psychology Fellow, Psi Chi   2012
Saybrook College Summer Research Fellowship, Yale University   2011
ORLO English Writing Award, English Department, Yale University   2010

GRANTS

Foundations of Human Behavior, $5k   2020
["Assimilation of Controlled Objects into the Self & Body Schemas"]

Executive Committee of the Stanford Institute for Human-Centered AI, $75k   2020
["Self-Modeling in Humans and Artificial Systems"]

Hodgson Fund, Harvard University, $2, 5k   2020
["Intrinsic Curiosity May Give Rise to Animate Attention"]

Anderson Fund, Harvard University, $2, 5k   2020
["A Computational Model of Pose Extraction in the Human Brain"]

Sackler grant, Harvard University, $12, 375   2019
["Do deficits in intrinsic curiosity explain patterns of animate attention in toddlers with autism spectrum disorder?"]

PAPERS UNDER REVIEW

24 De Freitas, J., Rips, L., & Alvarez, G. A. The limit of self-representation. **Under review.**

23 Gan, C., Schwartz, J., Alter, S., Schrimpf, M., Traer, J., De Freitas, J., Bhandwaldar, A., Sano, M., Kim, K. H., Wang, E., Mrowca, D., Lingelbach, M., Curtis, A., Feigelis, K., Haber, N., Gutfreund, D., Cox, D., DiCarlo, J., McDermott, J., Tenenbaum, J., Yamins, D. L. K. ThreeDWorld: A Platform for interactive multi-modal physical simulation. **Invited at Nature Machine Intelligence.**

PUBLICATIONS

22 De Freitas, J., Censi, A., Anthony, S. E., Di Lillo, L., & Frazzoli, E. (2021). From driverless dilemmas to more practical ethics tests for autonomous vehicles. **Proceedings of the National Academy of Sciences.**

21 De Freitas, J., & Cikara, M. (2020). Deliberately prejudiced self-driving cars elicit the most outrage. **Cognition.**

20 Prinzing, M., De Freitas, J., & Fredrickson, B. L. The lay concept of a meaningful life: The role of subjective and objective factors in attributions of meaning. *Under review*. **Journal of Positive Psychology.**

19 Kim, K. H., Sano, M., De Freitas, J., Yamins, D. L. K., Haber, N. (2020). Towards modeling the variability of human attention. **International Conference on Learning Representations Workshop.**

18 Kim, K. H., De Freitas, J., Haber, N., Sano, M. & Yamins, D. L. K. (2020). Active world model learning with progress curiosity. **International Conference on Machine Learning.**

17 De Freitas, J., Anthony, S. A., & Alvarez, G. A. (2020). Doubting driverless dilemmas. **Perspectives on Psychological Science.**

16 De Freitas, J., Thomas, K. A., DeScioli, P., & Pinker, S. (2019). Common knowledge, coordination, and strategic mentalizing in social life. **Proceedings of the National Academy of Sciences.**

15 De Freitas, J., DeScioli, P., Thomas, K. A., & Pinker, S. (2019). Maimonides' ladder: States of mutual knowledge and the perception of charitability. **Journal of Experimental Psychology: General,** *148*(1), 158–173.

14 De Freitas, J.*, & Johnson, S.G.B.* (2018). Optimality bias in moral judgment. **Journal of Experimental Social Psychology**, *79*, 149–163.

13 De Freitas, J., Cikara, M., Grossmann, I., & Schlegel, R. (2018). Moral goodness is the essence of personal identity. **Trends in Cognitive Sciences**.

12 De Freitas, J., & Alvarez, G. A. (2018). Your visual system provides all the information you need to make moral judgments about generic visual events. **Cognition**, *178,* 133–146.

11 De Freitas, J., & Cikara, M (2018). Deep down my enemy is good: Thinking about the true self reduces intergroup bias. **Journal of Experimental Social Psychology**, *74,* 307–316.

10 De Freitas, J., Sarkissian, H., Newman, G. E., Grossman, I., De Brigard, F., Luco, A., & Knobe, J. (2018). Consistent belief in a good true self in misanthropes and three interdependent cultures. **Cognitive Science**, *42,* 134–160.

9 De Freitas, J., Cikara, M., Grossmann, I., & Schlegel, R. (2017). Origins of the belief in morally good true selves. **Trends in Cognitive Sciences**, *21*(9), 634–636.

8 Phillips, J., De Freitas, J., Mott, C., Gruber, J. & Knobe, J. (2017). True happiness: The role of morality in the concept of happiness. **Journal of Experimental Psychology: General**, *146*(2),165–181.

7 De Freitas, J., DeScioli, P., Nemirow, J., Massenkoff, M., & Pinker, S. (2017). Kill or die: Moral judgment alters linguistic coding of causality. **Journal of Experimental Psychology: Learning, Memory, and Cognition**, *43*(8), 1173–1182.

6 DeScioli, P., Karpoff, R., & De Freitas, J. (2017). Ownership dilemmas: The case of finders versus landowners. **Cognitive Science**, *41,* 502–522.

5 De Freitas, J., Tobia, K., Newman, J. E., & Knobe, J. (2017). Normative judgments and individual essence. **Cognitive Science**, *41,* 382–402.

4 De Freitas, J.*, Thomas, K. A.*, DeScioli, P., & Pinker, S. (2016) Recursive mentalizing and common knowledge in the bystander effect. **Journal of Experimental Psychology: General,** *145*(5), 621–629.

3 De Freitas, J., Myers, N. E., & Nobre, A. C. (2016). Tracking the changing feature of a moving object. **Journal of Vision,** *16*(3), 1–21.

2 Newman, J. E., De Freitas, J., and Knobe, J. (2015). Beliefs about the true self explain asymmetries based on moral judgment. **Cognitive Science**, *39*(1), 96–125.

1 De Freitas, J., Liverence, B., & Scholl, B. J. (2014). Attentional rhythm: A temporal analogue of object-based attention. **Journal of Experimental Psychology: General**, *143*(1), 71–76.

CHAIRED CONFERENCES AND SYMPOSIA

De Freitas, J., DeScioli, P., Nemirow, J., Massenkof, M., & Pinker, S. (2016). Mutual constraints in moral cognition and language. Talk symposium given at the *International Conference on Thinking,* 08/04/16, Brown University, Providence, RI, USA. Speakers: Julian De Freitas, Lera Boroditsky, Laura Niemi, Ana Gantman, and John Voiklis.

SUBMITTED PRESENTATIONS

[34] De Freitas, J., Thomas, K. A., DeScioli, P., & Pinker, S. (2021). Common knowledge, coordination, and strategic mentalizing in social life. Submitted to the *Human Behavior & Evolution Society.*

[33] Prinzing, M., De Freitas, J., Frederickson, B. (2021). The ordinary concept of a meaningful life. Submitted to the *Society for Philosophy & Psychology*.

[32] De Freitas, J., Thomas, K. A., DeScioli, P., & Pinker, S. (2021). Common knowledge, coordination, and strategic mentalizing in social life. Submitted to the *Society for Philosophy & Psychology*.

[31] Cikara, M., De Freitas, J. (2021) Deliberately prejudiced self-driving vehicles elicit the most outrage. Submitted to the *Society for Philosophy & Psychology*.

[30] Zhao, X.*, De Freitas, J.*, Tarhan, L., & Alvarez, G. A. (2021). A performance-optimized limb detection model selectively predicts behavioral responses based on movement similarity. Poster presented at the *Vision Sciences Society*, St. Pete Beach, Fl, USA.

[29] Sano, M., De Freitas, J., Haber, N., & Yamins, D. L. K. (2020). Learning in social environments with curious neural agents. Talk to be presented at the *Cognitive Science Society,* Toronto, Canada.

[28] Kim, K-H., Sano, M., De Freitas, J., Haber, N., & Yamins, D. L. K. (2020). Towards modeling the developmental variability of human attention. Presented at the *International Conference on Learning Representations,* Addis Ababa, Ethiopia.

[27] Kim, K-H., Sano, M., De Freitas, J., Haber, N., & Yamins, D. L. K. (2020). Active world model learning with progress-driven exploration. Presented at the *International Conference on Learning Representations,* Addis Ababa, Ethiopia.

[26] Kim, K-H., Sano, M., De Freitas, J., Haber, N., & Yamins, D. L. K. (2020). Learning world models with progress-driven exploration. Submitted to the *International Conference on Machine Learning,* Vienna, Austria.

[25] Tarhan, L., De Freitas, J., Alvarez, G. A., & Konkle, T. (2020). Semantic embeddings of verbal descriptions predict action similarity judgments. Poster presented at the *Vision Sciences Society*, St. Pete Beach, Fl, USA.

[24] De Freitas, J., Rips, J. L., Alvarez, G. A. (2020). The capacity limit of personal identity. Poster presented at the *Vision Sciences Society*, St. Pete Beach, Fl, USA.

[23] De Freitas, J. (2019). Capacity limits for higher-level thought? The self as a case study. Talk presented at *Cognition, Brain, & Behavior Seminar*, Harvard University, Cambridge, MA, USA.

[22] De Freitas, J. (2019). Identity and morality without mind. Talk presented at the *Society for Philosophy & Psychology*, San Diego, CA, USA.

[21] De Freitas, J., Kim, K. H., Haber, N., Conwell, C., Alvarez, G. A., & Yamins, D. L. K. (2019). Intrinsic curiosity may give rise to animate attention. Talk presented at the *Vision Sciences Society*, St. Pete Beach, Fl, USA.

[20] De Freitas, J. (2018). Strategic mentalizing and common knowledge in social life. Talk presented at *Social Brownbag Talk Series*, Harvard University, Cambridge, MA.

[19] De Freitas, J. (2018). From pixels to moral judgment: Extracting morally relevant information in minds and machines. Talk presented at *Cognition, Brain, & Behavior Seminar*, Harvard University, Cambridge, MA, USA.

[18] De Freitas, J., Hafri, Alvarez, G. A., Yamins, D. L. K. (2018). Learning to recognize objects provides category-orthogonal features for social inference and moral judgment. Talk presented at *Society for Philosophy & Psychology*, University of Michigan, MI, USA.

[17] De Freitas, J., Hafri, Alvarez, G. A., Yamins, D. L. K. (2018). From pixels to moral judgment: Extracting morally relevant information in minds and machines. Poster presented at the *Vision Sciences Society*, St. Pete Beach, Fl, USA.

[16] De Freitas, J., DeScioli, P., Thomas, K., & Pinker, S. (2017). The ladder of charity. Talk given at *Human Behavior and Evolution Society*, Boise State University, Boise, ID.

[15] De Freitas, J., and Johnson, S. G. B. (2017). The efficiency principle in moral judgment. Talk presented at *Society for Philosophy and Psychology,* John's Hopkins University, Baltimore, MD.

[14] De Freitas, J., and Alvarez, G. A. (2017). Changing moral judgments by exploiting the visual system. Poster presented at *Vision Sciences Society,* St. Pete Beach, Fl, USA.

[13] De Freitas, J., and Alvarez, G. A. (2016). Moral psychophysics. Talk presented at *Society for Philosophy and Psychology,* Austin, Tx, USA.

[12] De Freitas, J., and Alvarez, G. A. (2016). Moral psychophysics. Poster presented at *Vision Sciences Society,* St. Pete Beach, Fl, USA.

[11] De Freitas, J., Thomas, K. A., DeScioli, P., & Pinker, S. (2015). The strategic bystander: Recursive theory of mind and common knowledge in decisions to help. Talk presented at *Human Behavior and Evolution Society,* Columbia, Missouri, USA.

[10] De Freitas, J., Sarkissian, H., Grossmann, I., De Brigard, F., Luco, A., Newman, G. E., and Knobe, J. (2015). Is there universal belief in a good true self? Talk presented at *European Society for Philosophy and Psychology,* University of Tartu, Estonia.

[9] De Freitas, J., and Johnson, S. G. B. (2015). Behaviorist thinking in judgments of wrongness, punishment, and blame. Poster presented at *Cognitive Science Society,* Pasadena, CA, USA.

[8] De Freitas, J., Sarkissian, H., Grossmann, I., De Brigard, F., Luco, A., Newman, G. E., and Knobe, J. (2015). Is there universal belief in a good true self? Talk presented at *Society for Philosophy and Psychology,* Durham, NC, USA.

[7] De Freitas, J, Myers, N. E., and Nobre, A. C. (2015). Mental tracking of dynamic features. Talk presented at *Vision Sciences Society,* St. Pete Beach, Fl, USA.

[6] Phillips, J., Mott, C., De Freitas, J., Gruber, J., and Knobe, J. (2015). Is that all there is to happiness? Poster presented at *Society for Personality and Social Psychology,* Austin, Tx, USA.

[5] De Freitas, J., and Nobre, K. (2014). Feature extrapolation in mental tracking. Poster presented at *2nd Year DPhil Students Poster Event,* University of Oxford, Oxfordshire, UK.

[4] De Freitas, J., Tobia, K., Newman, J. E., and Knobe, J. (2014). The good ship Theseus: The effect of valence on object identity judgments. Poster presented at *Cognitive Science Society*, Quebec City, Canada.

[3] Newman, J. E., De Freitas, J., and Knobe, J. (2014). Beliefs about the true self explain asymmetries based on moral judgment. Poster presented at *Society for Philosophy and Psychology,* Vancouver, Canada.

[2] De Freitas, J., Liverence, B. M., and Scholl, B. J. (2013). Visual and auditory object-based attention driven by rhythmic structure over time. Poster presented at *Vision Sciences Society*, Naples, Fl, USA.

[1] De Freitas, J., Liverence, B., and Scholl, B. J. (2012). Attentional rhythm: A temporal analogue of object-based attention. Poster presented at the annual meeting of the *Vision Sciences Society*, Naples, Fl, USA

INVITED PRESENTATIONS

Hoffman-Yee Grant Seminar, Stanford University, CA	2021
Institut Jean Nicod, Paris, France	2021
Marketing Department, Harvard Business School, MA	2021
Behavioural Lab Series, University of Bath Business School, UK	2021
Computation & Cognitive Development Lab, Cambridge, MA	2020
MIT Computational Cognitive Science Group, Cambridge, MA	2020
LMC Workshop MK40, London, UK	2020
Causality in Cognition Lab, Stanford University, Palo Alto, CA	2020
Deep Neural Networks Reading Group, Harvard, Boston, MA	2019
Language and Mind Lab, Northeastern, Boston, MA	2019
Brown University Social Brownbag Talk Series, Providence, RI	2019
MIT Media Lab (Human Dynamics Group), MIT, Cambridge, MA (2 of 2)	2019
Moral Psychology Lab, Psychology Department, Harvard University	2019
Visual Attention Lab, Brigham & Women's Hospital, Cambridge, MA	2019
MIT Media Lab (Human Dynamics Group), MIT, Cambridge, MA (1 of 2)	2019
Morality Lab, Boston College, Boston, MA	2019
NCARAI Symposium Series, Naval Research Laboratory, Washington DC	2018
Post-Simian Seminar, The Bahamas	2018
Moral Psychology Lab, Psychology Department, Harvard University	2018
Language and Thought Workshop, Jean Nicod, Paris	2017
Boston Area Morality Group, Harvard University	2016
Morality Lab, Boston College	2016
Harvard Intergroup Neuroscience Lab, Harvard University	2016
Moral Psychology Research Group, Cambridge MA	2016
Jean Nicod, Paris	2015
Northeast Music Cognition Group, New York University	2013
Senior Essay Prize Talk, Yale University	2013
New England Sequencing and Timing Conference, Amherst MA	2013
Northeast Music Cognition Group, Boston University	2012
Northeast Music Cognition Group, New Haven CT	2012

TEACHING EXPERIENCE

Junior Tutorial in Mind Brain & Behavior, wt. Tomer Ullman; x1 student	2021
Laboratory for Comp. Cog. Sci. & Dev., wt. Tomer Ullman; x1 student	2020
Becoming a Brain Scientist, with Jessica Schwab, Harvard University	2020
Special Reading & Research, wt. George Alvarez, Harvard; x4 students	2020
Sophomore Tutorial in Psychology, Harvard University	2020
Sophomore Tutorial in Psychology, Harvard University	2019
Sophomore Tutorial in Neuroscience & Evo Psych, Harvard University	2019
Sophomore Tutorial in Psychology, Harvard University	2018
Social Psychology, with Fiery Cushman, Harvard University	2018
Introduction to Psychology, with Daniel Gilbert, Harvard University	2017
Deep Learning Workshop, Vision Science Lab, Harvard University	2016

GUEST LECTURES

Driving Digital Strategy by Sunil Gupta, Harvard Business School	2021
Moral Psychology Seminar by Liane Young, Boston Uni.	2019

ADVISING EXPERIENCE (selected)

Neelay Shah (BITS Pilani Goa electronics major)	2020-ongoing
Anya Ragnhildstveit (University of Utah, clinical psych. major)	2020-ongoing
Zeliha Oguz (Bilkent University, psychology major)	2020-ongoing
Ahmet Kaan Uguralp (Bilkent University, computer science major)	2020-ongoing
Pechthida Kim (Harvard psychology major; thesis student)	2020-ongoing
Xilin Zhou (Harvard computer science major)	2020-ongoing
Jules Muhizi (Harvard electrical engineering major)	2020
Michelle Zhao (adm. masters, Harvard ed school & PhD, Hong Kong Uni)	2018-2020
Jasper Hajonides (adm. to PhD, Oxford University)	2013-2014

MEDIA APPEARANCES

Harvard Gazette	2020
Ricardo Lopez on the "Dissenter" podcast	2020
Rabbi Geoff Mitelman, Director of Sinai & Synapses	2019
Keith Shaw of Robotics Business Review	2019
Ed Niedermeyer of The Drive "Merge" podcast	2019
Marcus Baram of Fast Company	2019

REVIEWING

Journals:

Behavioral & Brain Sciences, Cognition, Cognitive Science, Cognitive Science Society, Frontiers in Psychology, Frontiers in Robotics & AI, International Journal of Human-Computer Interaction, Journal of Experimental Psychology: General, Journal of Experimental Social Psychology, Journal of Vision, Journal of Moral Education, NeurIPS Workshop, Oxford Studies in Experimental Philosophy, Personality & Social Psychology Bulletin, Philosophical Psychology, Society for Philosophy & Psychology, Social Psychological & Personality Science, Review of Philosophy & Psychology

Foundations:

National Science Foundation

PROFESSIONAL AFFILIATIONS

Society for Philosophy & Psychology
Vision Sciences Society
Human Behavior & Evolution Society
Cognitive Science Society

ACADEMIC RECOMMENDERS
George Alvarez, Harvard University, alvarez@wjh.harvard.edu
Mina Cikara, Harvard University, mcikara@fas.harvard.edu
Joshua Knobe, Yale University, joshua.knobe@yale.edu
Steven Pinker, Harvard University, pinker@wjh.harvard.edu
Tomer D. Ullman, Harvard University, tullman@fas.harvard.edu
Daniel L. K. Yamins, Stanford University, yamins@stanford.edu

PROGRAMMING SKILLS
Python (incl. Tensorflow and Pytorch), R, Javascript (incl. Jquery and React), HTML, CSS, Matlab