# Stefan Uddenberg

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# **Academic Appointments**

2020- University of Chicago Booth School of Business - Principal Researcher.

Advisor: Alex Todorov

2018–2020 **Princeton University – Postdoctoral Fellow**, *Princeton Neuroscience Institute*.

Advisor: Alex Todorov

### **Education**

- 2013–2018 **Yale University Ph.D. in Cognitive Psychology**, *New Haven, CT.*M.Phil. (2016) & M.S. (2015) in Cognitive Psychology | *Advisor: Brian Scholl*
- 2007–2011 **Dartmouth College B.A. in Cognitive Science & Japanese Studies**, *Hanover, NH*. Magna Cum Laude | Phi Beta Kappa

#### **Research Grants**

2019-2021 Innovation Fund for New Ideas in the Natural Sciences,

Princeton University, Office of the Dean for Research (\$199,422).

SocialGAN: Generating infinitely many hyper-realistic faces with a simple web application.

#### **Honors & Awards**

- 2019 **Massive Online Data Collection with Dallinger Workshop Travel Grant**, *Max Planck Institute for Empirical Aesthetics*.
- 2019 **Dartmouth MIND Computational Summer School Fellowship**, *Dartmouth College*.
- 2019 **NEI Postdoctoral Travel Grant**, *National Eye Institute*.

  Awarded to cover cost of attendance for the annual meeting of the Vision Sciences Society.
- 2015–2018 **NSF Graduate Research Fellowship**, *National Science Foundation*.
  - 2017 **Rosenkranz Grant for Pedagogical Advancement**, *Yale Center for Teaching/Learning*. Awarded for developing a web-based interactive life simulation for pedagogy in public health.
  - 2017 **Yale Dean's Emerging Scholar Award**, *Dean's Office, Yale University*.

    Awarded to 10 minority graduate students each year to cover research-related expenses.
  - 2007 **National Additional Science Scholarship**, *Trinidad & Tobago Government*.

    4-year scholarship awarded to Trinidadians to pursue an undergraduate degree abroad.

# **Journal Articles**

Albohn, D. N., **Uddenberg, S.**, & Todorov, A. (in press). A data-driven, hyper-realistic method for visualizing individual mental representations of faces. *Frontiers in Psychology*.

Peterson, J. C., **Uddenberg, S.**, Griffiths, T. L., Todorov, A., & Suchow, J. W. (2022). Deep models of superficial face judgments. *Proceedings of the National Academy of Sciences*, *119*(17), e2115228119. [PDF]

Colombatto, C., **Uddenberg, S.**, & Scholl, B. J. (2022). The efficiency of demography in face perception. *Attention, Perception, & Psychophysics*, *83*(8), 3104-3117. [PDF]

Suthaharan, P., Reed, E. J., Leptourgos, P., Kenney, J., **Uddenberg, S.**, Mathys, C. D., Litman, L., Robinson, J., Moss, A. J., Taylor, J. R., Groman, S. M, & Corlett, P. R. (2021). Paranoia and belief updating during the COVID-19 crisis. *Nature Human Behavior*, *5*(9), 1190-1202. [PDF]

Reed, E. J., **Uddenberg, S.**, Suthaharan, P., Mathys, C. H., Taylor, J. R., Groman, S. M., & Corlett, P. R. (2020). Paranoia as a deficit in non-social belief updating. *eLife*, *9:e56345*. [PDF]

**Uddenberg, S.**, & Scholl, B. J. (2018). TeleFace: Serial reproduction of faces reveals a Whiteward bias in race memory. *Journal of Experimental Psychology: General, 147*, 1466-1487. [PDF]

\*Ongchoco, J. D. K., \***Uddenberg, S.**, & Chun, M. M. (2016). Statistical learning of movement. *Psychonomic Bulletin & Review, 23*, 1913-1919. \**Equal author contribution.* [PDF]

van Buren, B., **Uddenberg, S.**, & Scholl, B. J. (2016). The automaticity of perceiving animacy: Goal-directed motion in simple shapes influences visuomotor behavior even when task-irrelevant. *Psychonomic Bulletin & Review 23*, 797-802. [PDF]

**Uddenberg, S.**, & Shim, W. M. (2015). Seeing the world through target-tinted glasses: Positive mood broadens perceptual tuning. *Emotion*, *15*, 319-328. [PDF]

# **Manuscripts**

**Uddenberg, S.**, Thompson, B., Griffiths, T. L., & Todorov, A.. (under review). Iterated learning reveals stereotypes of facial trustworthiness that propagate in the absence of evidence.

**Uddenberg, S.**, & Scholl, B. J. (under revision). Ten angry men: Serial reproduction of faces reveals that angry faces are represented as more masculine.

**Uddenberg, S.**, & Scholl, B. J. (under review). Angrier = Blacker?: The influence of emotional expression on the representation of race in faces, measured with serial reproduction.

**Uddenberg, S.**, Newman, G. E., & Scholl, B. J. (under revision). Perceptual averaging in visual communication: Ensemble representations in the perception of scientific data in graphs.

Bai, X., **Uddenberg, S.**, Labbree, B., & Todorov, A. (under review). Insta-learn: Face Stereotypes Emerge and Persist through Insufficient Statistical Learning.

Gandalf, N., **Uddenberg, S.**, & Todorov, A. (under review). A comprehensive semantic space for describing and evaluating faces.

## **Presentations & Talks**

**Uddenberg, S.**, & Todorov, A. (2022). Exploring visual representations of race with deep generative models. Talk given at the 2022 Midwestern Psychological Association Conference, 04/21/22.

**Uddenberg, S.**, & Todorov, A. (2022). Revealing hidden biases in face representation via deceptively simple tasks. Talk given at Dartmouth College's Psychological & Brain Sciences Department, 01/14/22.

**Uddenberg, S.**, Thompson, B., Vlasceanu, M., Griffiths, T. L., & Todorov, A. (2021). A face you can trust?: Iterated learning reveals how stereotypes of facial trustworthiness may propagate in the absence of evidence. Talk given at the University of Massachusetts-Amherst's Cognitive Brownbag, 11/17/21.

**Uddenberg, S.**, Thompson, B., Vlasceanu, M., Griffiths, T. L., & Todorov, A. (2021). A face you can trust?: Iterated learning reveals how stereotypes of facial trustworthiness may propagate in the absence of evidence. Talk given at Northwestern University's Cognitive Psychology Brownbag, 10/22/21.

**Uddenberg, S.**, & Todorov, A. (2021). Modeling impressions of faces. Talk given at the *No Name Face Perception Conference*, 07/01/21.

**Uddenberg, S.**, Kwak, J., & Scholl, B. (2021). Reconstructing physical representations of block towers in visual working memory. Poster presented at the 21st annual meeting of the *Vision Sciences Society*, 05/24/21. [Abstract published in *Journal of Vision*, 21(9), 2929.]

**Uddenberg, S.**, Thompson, B., Vlasceanu, M., Griffiths, T. L., & Todorov, A. (2021). A face you can trust?: Iterated learning reveals how stereotypes of facial trustworthiness may propagate in the absence of evidence. Talk given at Harvard University's Cognitive, Brain, and Behavior Research Seminar Series, 04/01/21.

**Uddenberg, S.**, Thompson, B., Vlasceanu, M., Griffiths, T. L., & Todorov, A. (2021). A face you can trust: Iterated learning reveals how stereotypes of facial trustworthiness may propagate in the absence of evidence. Talk given at the Johns Hopkins University Early Career Colloquium Series, 03/17/21.

**Uddenberg, S.**, Thompson, B., Vlasceanu, M., Griffiths, T. L., & Todorov, A. (2020). A face you can trust?: Iterated learning reveals how stereotypes of facial trustworthiness may propagate in the absence of evidence. Talk given at the University of Wisconsin-Madison's Cognitive/Developmental Brownbag Series, 10/28/20.

**Uddenberg, S.**, Thompson, B., Vlasceanu, M., Griffiths, T. L., & Todorov, A. (2020). A face you can trust?: Iterated learning reveals how stereotypes of facial trustworthiness may propagate in the absence of evidence. Talk given at the Stanford Graduate School of Business Rising Scholars Conference, 10/27/20.

**Uddenberg, S.**, Thompson, B., Vlasceanu, M., Griffiths, T. L., & Todorov, A. (2020). A face you can trust?: Iterated learning reveals how stereotypes of facial trustworthiness may propagate in the absence of evidence. Poster presented at the 20th annual meeting of the *Vision Sciences Society*, 6/21/20. [Abstract published in *Journal of Vision*, *20*(11), 1735.]

Kwak, J., **Uddenberg, S.**, & Scholl, B. (2020). Will it fall?: Exploring the properties that mediate perceived physical instability. Poster presented at the 20th annual meeting of the *Vision Sciences Society*, 6/21/20. [Abstract published in *Journal of Vision*, *20*(11), 1750.]

**Uddenberg, S.**, Colombatto, C., & Scholl, B. (2019). The speed of demography in face perception. Poster presented at the 19th annual meeting of the *Vision Sciences Society*, 5/21/19, St. Pete Beach, FL. [Abstract published in *Journal of Vision*, 19(10), 229d.]

**Uddenberg, S.**, Newman, G. E., & Scholl, B. (2019). Ensemble representations in the perception of graphs. Talk given at the *InfoVis x Vision Science* satellite at the 19th annual meeting of the *Vision Sciences Society*, 5/20/19, St. Pete Beach, FL.

**Uddenberg, S.**, & Scholl, B. (2018). Ten angry men: Serial reproduction of faces reveals that angry faces are represented as more masculine. Poster presented at the 18th annual meeting of the *Vision Sciences Society*, 5/20/18, St. Pete Beach, FL. [Abstract published in *Journal of Vision*, 18(10), 608.]

**Uddenberg, S.**, & Scholl, B. (2017). "TeleFace": Revealing default attractors in face space with serial reproduction. Talk given at the *Vision Lunch Series*, Stanford University, 7/23/17, Stanford, CA.

**Uddenberg, S.**, & Scholl, B. (2017). Angrier = Blacker?: The influence of emotional expression on the representation of race in faces, measured with serial reproduction. Talk given at the 17th annual meeting of the *Vision Sciences Society*, 5/23/17, St. Pete Beach, FL. [Abstract published in *Journal of Vision, 17*(10), 912.]

Ongchoco, J. D. K., **Uddenberg, S.**, & Chun, M. M. (2016). Statistical learning of movement. Poster presented at the 16th annual meeting of the *Vision Sciences Society*, 5/16/16, St. Pete Beach, FL. [Abstract published in *Journal of Vision*, *16*(12), 1079.]

**Uddenberg, S.**, Newman, G., & Scholl, B. (2016). Perceptual averaging of scientific data: Implications of ensemble representations for the perception of patterns in graphs. Poster presented at the 16th annual meeting of the *Vision Sciences Society*, 5/16/16, St. Pete Beach, FL. [Abstract published in *Journal of Vision*, 16(12), 1081.]

Familiar, A., **Uddenberg, S.**, & Shim, W. M. (2015). Positive affect reduces visual crowding. Poster presented at the 15th annual meeting of the *Vision Sciences Society*, 5/17/15, St. Pete Beach, FL. [Abstract published in *Journal of Vision*, *15*(12), 450.]

Guerin, S., **Uddenberg, S.**, Johnson, M., & Chun, M. M. (2015). Decoding the temporal structure of perception and reflection. Poster presented at the 15th annual meeting of the *Vision Sciences Society*, 5/18/15, St. Pete Beach, FL. [Abstract published in *Journal of Vision*, *15*(12), 808.]

van Buren, B., **Uddenberg, S.**, & Scholl, B. (2015). The automaticity of perceiving animacy: Seeing goal-directed motion in simple shapes influences visuomotor behavior even when task-irrelevant. Poster presented at the 15th annual meeting of the *Vision Sciences Society*, 5/19/15, St. Pete Beach, FL. [Abstract published in *Journal of Vision*, *15*(12), 1187.]

**Uddenberg, S.**, & Scholl, B. (2015). Revealing mental defaults in face space with serial reproduction. Poster presented at the 15th annual meeting of the *Vision Sciences Society*, 5/19/15, St. Pete Beach, FL. [Abstract published in *Journal of Vision*, *15*(12), 1214.]

Shim, W.M., **Uddenberg, S.**, & Lee, Y. S. (2013). Changing pitch modulates motion-direction information in V1. Talk given at the 13th annual meeting of the *Vision Sciences Society*, 5/12/13, Naples, FL. [Abstract published in *Journal of Vision*, *13*(9), 617.]

**Uddenberg, S.**, & Shim, W. M. (2012). The influence of emotion on feature-based attention: positive emotion broadens perceptual tuning curves. Poster presented at the 12th annual meeting of the *Vision Sciences Society*, 5/11/12, Naples, FL. [Abstract published in *Journal of Vision*, 12(9), 11.]

# **Work Experience**

2011–2013 Full-time Research Assistant & Lab Manager, Dartmouth College,

Department of Psychological & Brain Sciences.

Projects included investigating the impact of emotion on attention using psychophysics, and crossmodal interactions between audition and vision on cortical encoding using fMRI. *Principle Investigator: Won Mok Shim* 

## **Outreach & Non-profit Work**

- 2017- Open Mind YHack's Best Hack to Counter Fake News, New Haven, CT.
  - Created Open Mind, a Google Chrome web extension designed to counter fake news by providing users with news articles relevant to their interests – but from the other end of the political spectrum.
  - Presented our extension and findings to the **US Congress** in August 2018.
- 2017 MySight HackPrinceton's Best VR/AR Submission, Princeton, NJ.
  - Created *MySight*, a **virtual reality** application designed to perform a variety of clinical vision tests using any smartphone and Google Cardboard.
  - Developed a working prototype with 4 different types of vision tests using **Unity** and **C#**.
- 2014–2016 **Code Up Founder of Educational Non-profit**, *Port of Spain, Trinidad & Tobago*.
  - Founded a non-profit organization in my birth country of Trinidad & Tobago to **reduce the gender gap** in computer science participation in the Caribbean.
  - Developed program that taught 20 high-school girls algorithmic thinking using JavaScript.

#### **Patents**

Todorov, A. T., **Uddenberg, S. D.**, Peterson, J. C., Griffiths, T. L., & Suchow, J. W. (2022). *Data-driven, photorealistic social face-trait encoding, prediction, and manipulation using deep neural networks* (U.S. Patent No. 11,250,245). U.S. Patent and Trademark Office.

#### References

Prof. Alex Todorov Chicago Booth alexander.todorov@chicagobooth.edu

Prof. Brian Scholl Yale University brian.scholl@yale.edu Prof. Marvin Chun Yale University marvin.chun@yale.edu

## Citizenship

U.S.A. | Trinidad and Tobago