

HARPER OKLAHOMA WEEKS WALLACE

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EDUCATION

École Normale Supérieure, PSL Research University, Paris, France Sep 2020–Present
M.Sc., Cognitive Science (Computational Cognitive Neuroscience) Anticipated: Jun 2022

Denison University, Granville, OH Aug 2017–May 2020
B.S., Biochemistry, *Summa Cum Laude*, ΦBK, with Distinction Rank: 1/569; GPA: 4.00/4

RESEARCH EXPERIENCE

Équipe biophysique et neurosciences théoriques, ENS Aug 2020–Present
Ingénieur d'études (2021–); *Stagiaire* (2020–21); Fulbright Scholar, France

Advisor: Rava A. da Silva, Ph.D., Directeur de Recherche, Département de Physique

Sujet: An efficient-coding model of choice-behavioral context effects and preference intransitivity

Reczek Laboratory, DU Jan 2018–May 2020
Undergraduate Research Assistant

Advisor: Joseph J. Reczek, Ph.D., Professor, Department of Chemistry & Biochemistry

Thesis: Controlled alignment of donor-acceptor columnar liquid crystals and interrogation of optical properties for applications in data storage and encryption

PUBLICATIONS

Dasgupta J, Moura E, **Wallace HOW**, Stamm J, Thompson JS, Rele CP. *Drosophila pseudoobscura* – *Thor. MicroPubl Biol.* (In press)

Dasgupta J, Moura E, Leissa G, **Wallace HOW**, Stamm J, Thompson JS, Rele CP. *Drosophila eugracilis* – *Thor. MicroPubl Biol.* (In press)

Laskowski LF, Coble C, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila biarmipes* – *cnk. MicroPubl Biol.* (In press)

Laskowski LF, Coble C, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila pseudoobscura* – *cnk. MicroPubl Biol.* (In press)

Laskowski LF, Cowan B, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila erecta* – *cnk. MicroPubl Biol.* (In press)

Cruzado JCM, Morales D, Leissa G, **Wallace HOW**, Bose I, Thompson JS, Rele CP. *Drosophila mojavensis* – *cnk. MicroPubl Biol.* (In press)

Wallace HOW, Fikri K, Weinstein JN, Weeks WB. Improving economic conditions associated with care pattern and cost changes. *Soc Determ Health*, 7(1), **2021**. <https://doi.org/10.22037/sdh.v7i1.35144>.

Wallace HOW, Fikri K, Weinstein JN, Weeks WB. Improving economic conditions matter for mortality: Changes in local economic distress associated with mortality among Medicare fee-for-service beneficiaries between 2003 and 2015. *J Gen Intern Med*, **2021**. <https://doi.org/10.1007/s11606-020-06410-z>.

Van Winkle M, **Wallace HOW**, Smith N, Pomerene AT, Wood, MG, Kaehr B, Reczek JJ. Direct-write orientation of charge-transfer liquid crystals enables polarization-based coding and encryption. *Sci Rep-UK*, 10, **2020**. <https://doi.org/10.1038/s41598-020-72037-z>.

PATENT PENDING

U.S. Patent Application 17/154,220 (Publication No. 2021/0165984). Polarization-based coding/encryption using organic charge-transfer materials. **2021** Jun 3. Inventors: Kaehr BJ, Reczek JJ, Van Winkle M, **Wallace HOW**. <https://patents.google.com/patent/US20210165984A1>.

PRESENTATIONS

Wallace HOW, Fikri K, Weinstein JN, Weeks WB. Improving economic conditions matter for mortality among Medicare fee-for-service beneficiaries in the U.S.. (Virtual) Oral presentation at the iHEA World Congress on Health Economics; **2021** Jul 12–15.

Wallace HOW, da Silveira RA. An efficient-coding model of choice-behavioral context effects. (Virtual) Poster session presented at the Institute of Molecular and Clinical Ophthalmology Basel; **2021** May 27.

Wallace HOW, Reczek JJ. Higher-order molecular control of self-assembling DACLCs. (Virtual) Poster session presented at Fundamental Research in Colloids, Surfaces & Nanomaterials Session; Division of Colloid and Surface Chemistry; American Chemical Society National Meeting; **2020** Mar 22–26.

Wallace HOW, Reczek JJ. Technology applications of self-assembling DACLCs: Information storage and encryption techniques. Poster session presented at:
(a) 23rd Annual Posters on the Hill (CUR); **2019** Apr 30; Washington, DC.
(b) Undergraduate Research Session; American Chemical Society National Meeting; **2019** Mar 31–Apr 4; Orlando, FL.

AWARDS & HONORS

Rosalind Swenson Fulbright Enrichment Award, <i>U.S.–France Fulbright Commission</i>	2021
Fulbright Research/Study Grant, France, <i>Fulbright U.S. Student Program</i>	2020
Valedictorian, Class of 2020, <i>Denison University</i>	
Provost’s Academic Excellence Award, <i>Denison University</i>	
ΦBK Academic Honor Society, <i>Denison University</i>	
ΣΞ Scientific Research Honor Society, <i>Denison University</i>	
William C. Ebaugh Award in Chemistry & Biochemistry, <i>Denison University</i>	
Columbus Chapter Award for Outstanding Senior, <i>American Chemical Society</i>	
Barry Goldwater Scholarship, <i>Barry Goldwater Scholarship Foundation</i>	2019
J. Reid & Polly Anderson Scholarship for Excellence in Science, <i>Denison University</i>	
Department Fellow, Chemistry & Biochemistry, <i>Denison University</i>	
Thomas A. Evans Award in Organic Chemistry, <i>Denison University</i>	
AEΔ Pre-Health Honor Society, <i>Denison University</i>	
23 rd Annual Posters on the Hill, <i>Council on Undergraduate Research</i>	

EMPLOYMENT & EXTRACURRICULAR

Kaplan K-12 Learning Services , Live-Online Team SHSAT and SAT Prep. Instructor	Jan 2018–Present
Department of Chemistry & Biochemistry , Denison University Teaching Assistant, Tutor (2018–20); Department Fellow (2019–20)	Jan 2018–May 2020
Jazz Combo , Denison University Alto Saxophone I	Jan 2018–May 2020
ΦΓΔ Fraternity , Denison University Treasurer, Social Chair (2019–20)	Jan 2018–May 2020
Residential Communities , Denison University Community Advisor (formerly “Resident Advisor”)	Jan 2019–Dec 2019

SERVICE

Nightline Paris , Paris, France Volunteer Responder, Referee, & Training Screener, English Line	Oct 2020–Present
FabLab , Collège-Lycée Paul Valéry, Paris, France Robotics and Programming Mentor	Oct 2020–Present
Pathways of Central Ohio , Newark, OH Crisis Response Specialist, 2-1-1 Crisis Hotline & National Suicide Prevention Lifeline	Jun 2018–Mar 2020
FIRST Robotics , Granville, OH Middle and High Schools Programming Mentor	Jan 2018–Mar 2020

TECHNICAL PROFICIENCIES

Programming Python, Swift, Java, C#, C++, Obj-C	Markup L ^A T _E X
Data Analysis & DBMS MATLAB, R, Python, Excel, SQL	Languages English (native), French (C1)

PERSONAL ACHIEVEMENTS

The Prouty Cycled two century rides along the Connecticut River in Vermont and New Hampshire	Jul 2018, 2019
Camino Portugues Cycled the historic 633-km pilgrimage from Lisbon, Portugal to Santiago de Compostela, Spain	Jun 2016