Curriculum Vitae (May, 2025)

ORI OSSMY

ACADEMIC POSITIONS

2023-present	Reader (Associate Professor), School of Psychological Sciences, Birkbeck, University of London, London, UK
2021-2023	Lecturer, Department of Psychological Sciences, Birkbeck, University of London, London, UK
2017-2021	Post-doctoral Associate, Department of Psychology & Center for Neural Science New York University, New York, NY, USA

EDUCATION

2013-2017	Ph.D., Neuroscience, Tel Aviv University, Tel Aviv, Israel Supervisor: Prof. Roy Mukamel
2011-2012	M.Sc., Neuroscience, Tel Aviv University, Tel Aviv, Israel Supervisor: Prof. Roy Mukamel
2006-2010	B.Sc., Software Engineering, Ben-Gurion University, Beer-Sheva, Israel Graduated Magna Cum-Laude

GRANTS

2023-2027	Research grant, Leverhulme Trust (£479,687; Role: PI; Title: “The effects of multi-modal information on the development of action planning”
2023-2026	Bloomsbury College Fellowship grant (Role: PI; Title: “Better together: Multi-sensory social intervention to improve spatial skills in primary education”)
2023-2025	Human Cognitive and Behavioral Science grant, Simons Foundation (£418,376; Role: PI; Title: “Identifying early markers of ASD in naturalistic motor behavior”)
2023-2024	Research grant, The Waterloo Foundation (£64,890; Role: PI; Title: “Real-time mechanisms underlying short-term and long-term effects of physical activity on problem-solving skills in children with ADHD”)
2022-2025	New Investigator grant, UKRI Economic and Social Research Council (£304,868; Role: PI; Title: “Real-time approach to the development of human problem solving”)
2021-2023	Wellcome Trust Institutional Strategic Support Fund (£31,162; Role: PI; Title: “Real-time approach to the development of human planning”)
2021-2023	British Academy Talent Award (£9,990; Role: PI; Title: “Integrating developmental science and engineering to study natural human play”)
2018-2019	Blavatnik Interdisciplinary Cyber Research Center grant ($165,706; Role: Post-doctoral advisor; Title: A novel technology to detect deceptive behaviour”)
2017-2019	NSF/SBE-BSF 1627993 grant ($293,783; Role: Post-doctoral Fellow; Title: “Neural patterns underlying the development of planning in action production and anticipation in action perception”)
2017-2018	Joy Ventures grant ($20,000; Role: Co-PI; Title: “EEG-tACS closed loop application for enhancing cognitive and learning potentials”)

AWARDS

2023	Best Supervisor Award, Birkbeck Student Union
2022	Innovative Methods Award, British Psychology Society (BPS) - Developmental Section
2022	Distinguished Early Career Award, International Congress of Infants Studies (ICIS)
2022	Investigator Award, International Society for Developmental Psychobiology (ISDP)
2021	Elsevier/Vision Research Virtual Award, Vision Sciences Society
2020	Postdoc Abstract Award, International Society for Developmental Psychology
2019	Postdoctoral Award, NYU Faculty of Arts & Sciences

2019 Early Career Travel Award, Society for Research in Child Development
2017 Trainee Professional Development Award, Society for Neuroscience
2017 Travel Award, International Society for Developmental Psychology
2013 Honor Scholarship of Scientific Research, President of the State of Israel
2013 Yosef Sagol Scholarship of Brain Research, Tel Aviv University
2016 Science Award, Ministry of Science, Technology & Space, Israel
2016 Alfa Excellency Program Scholarship to Mentor High-school Students
2015 Science Award, Sagol School of Neuroscience, Tel Aviv University
2015 Travel Award, Adams Super Center for Brain Studies
2014 Sieratzki Prize for Students in Neuroscience
2014 Trotzky Scholarship for Research
2010 Project Excellence Award in Engineering

PEER-REVIEWED PUBLICATIONS (* joint first authorship)

1. Cheng, M., Han, D., Haq, M., **Ossmy, O.** (in press). Physical cognition in altered gravity: Link between sensorimotor and cognitive adaptability. *iScience*
2. **Ossmy, O.**, Donati, G., Kaur, A., Sotoodeh, S., Forrester, G. (2025). Towards automatic assessment of atypical early motor development. *Brain Research Bulletin,* 111311
3. Grandchamp Des Raux, H., Ghilardi, T., **Ossmy, O.** (2025). The effects of rewards on trial-and-error learning in school-aged children. *international journal of behavioral development, 0*(0)
4. Golmakani, S., Kaplan, B., Adolph, K. E., **Ossmy, O.** (2025). Children plan manual actions similarly in directed tasks and in free play. *Journal of Experimental Child Psychology*, *250*, 106124.
5. **Ossmy, O.,** Han, D., MacAlpine, P., Hoch, J., Stone, P., Adolph, K. E. (2024). Walking and falling: using robot simulations to model the role of errors in infant walking. *Developmental science*, e13449. *Developmental Science Best Paper Award*
6. Grandchamp des Raux, H., Ghilardi, T., Soderberg, C., **Ossmy, O.** (2024). The role of action concepts in physical reasoning: insights from late childhood. *Philosophical Transactions B*, *379*(1911), 20230154.
7. Cherry, L., Soderberg, C., Haetter, J., **Ossmy, O.** (2024). Extended reality in STEM: A modernised educational tool for children. *Journal of Human Centered Technology*, 3(2), 10-20.
8. Cherry, L., Cheng, M., Ghilardi, T., **Ossmy, O.** (2024). Automatic real-time hand tracking enhances adolescents' spatial skills by eliminating haptic feedback. In *IEEE International Conference on Development and Learning (ICDL)* (pp. 1-6).
9. Krishna, A., Kaplan, B. E., Pope, J., Todorovic, S., Adolph, K. E., **Ossmy, O.** (2024). A computer-vision approach for testing developmental changes in object manipulation. In *IEEE International Conference on Development and Learning (ICDL)* (pp. 1-6).
10. Han, D., Aziere, N., **Ossmy, O.,** Wang, T., Krishna, A., Shen, R., Wang, H., Todorovic, S., Adolph, K.E. (2024). Infants' developing environment: Integration of computer vision and human annotation to quantify where infants go, what they touch, and what they see. In *IEEE International Conference on Development and Learning (ICDL)* (pp. 1-8). **ICDL Best Paper Award*
11. Muszynska, M., **Ossmy, O.** (2024). The BlockQuest game: Digital behavioral phenotyping of ADHD using embodied serious game in virtual reality. In *Joint International Conference on Serious Games*. Cham: Springer International Publishing.
12. Hascher, S., **Ossmy, O.,** Pontes, H. (2024). The Application of Serious Games in Virtual Reality as Intervention for Sugar Addiction. In *Joint International Conference on Serious Games*. Cham: Springer International Publishing.
13. Hascher, S., Shuster, A., Mukamel, R., **Ossmy, O.** (2023). The power of multivariate patterns in identifying EEG correlates of interlimb coupling. *Frontiers in Human Neuroscience*, 17.
14. Dexter, M., **Ossmy, O.** (2023). The effects of typical ageing on cognitive control: recent advances and future directions. *Frontiers in Aging Neuroscience*, 15.
15. **Ossmy, O.**, Kaplan, B., Han, D., Xu, M., Mukamel, R., Adolph, K.E. (2022). Real-time processes in the development of action planning. *Current Biology 32, 1–10.*

16. **Ossmy, O.**, Mansano, L., Frenkel-Toledo, S., Kagan, E., Koren, S., Gilron, R., Reznik, D., Soroker, N., Mukamel, R. (2022). Motor learning in Hemi-Parkinson using VR-manipulated sensory feedback. *Disability and Rehabilitation: Assistive Technology,* 1-13
17. Shuster, A., Inzelberg, L., **Ossmy, O.**, Izakson, L., Hanein, Y., Levy, D. (2021). Lie to my face: An electromyography approach to deceptive behavior. *Brain and Behavior, e2386*
18. **Ossmy, O.**, Han, D., Kaplan, B., Xu, M., Bianco, C., Mukamel, R., Adolph, K.E. (2021). Children do not distinguish efficient from inefficient actions during observation. *Scientific Reports , 11(1), 1-13.*
19. Le, H., Hoch, J., **Ossmy, O.**, Adolph, K., Fern, X., Fern, A. (2021). Modeling infant free play behavior using hidden markov models. *Proceedings of the IEEE International Conference on Development and Learning* (ICDL), pp. 1-6
20. Hoch, J.*, **Ossmy, O.***, Hasan, S., Cole, W., Adolph, K.E. (2021). "Dancing" together: Infant-mother locomotor synchrony. *Child Development,* 92(4), 1337-1353
21. **Ossmy, O.**, Adolph, K.E. (2020). Real-time assembly of coordination patterns in human infants. *Current Biology*, 30, 1-10
22. Lakertz, Y.*, **Ossmy, O.***, Friedmann, N., Mukamel, R., Fried, I. (2021). Single-cell activity in human STG during perception of phonemes is organized according to manner of articulation. *NeuroImage*, 226, 117499.
23. **Ossmy, O.**, Han, D., Cheng, M., Kaplan, B., Adolph, K.E. (2020). Look before you fit: Real-time planning cascade in children and adults. *Journal of Experimental Child Psychology* 189, 104696
24. **Ossmy, O.**, Mansano, L., Frenkel-Toledo, S., Kagan, E., Koren, S., Gilron, R., Reznik, D., Soroker, N., Mukamel, R. (2020). Motor learning by cross education in Hemi-Parkinson's disease: Case study of the effects of virtual mirrored sensory feedback. *2019 International Conference on Virtual Rehabilitation (ICVR), Tel Aviv, Israel, 2019,* pp. 1-9
25. **Ossmy, O.**, Gilmore, R. O., & Adolph, K. E (2020). AutoViDev: A computer-vision framework to enhance and accelerate research in human development. In K. Arai & S. Kapoor (Eds.), Advances in computer vision: CVC 2019. *Advances in Intelligent Systems and Computing, 944*. Springer.
26. Adolph, K. E., Hoch, J. E., & **Ossmy, O.** (2020). James Gibson's ecological approach to locomotion and manipulation: Development and changing affordances. In J. Wagman & J. Blau (Eds.). Perception as information detection: Reflections on Gibson's ecological approach to visual perception. New York: Taylor & Francis, pp. 248-266
27. Karasik, L., Tamis-LeMonda, C.S., **Ossmy, O.**, Adolph, K.E. (2018). The ties that bind: Cradling in Tajikistan. *Plos One* 13:e0204428
28. **Ossmy, O.**, Hoch, J., MacAlpine, P., Hasan, S., Stone, P., Adolph, K.E. (2018). Variety wins: Soccer-playing robots and infant walking. *Frontiers in Neuro-robotics*, 12:19
29. **Ossmy, O.**, Mukamel, R. (2018). Perception as a route for transfer of motor knowledge: Perspectives from human neuroscience. *Neuroscience,* 382:144-153
30. Aridan N.*, **Ossmy, O.***, Mukamel, R. (2018). EEG mu wave suppression during action observation corresponds with subsequent individual changes in execution. *Brain Research*, 1691:55-63
31. **Ossmy, O.**, Mukamel, R. (2017). Behavioral and neural effects of congruency of visual feedback during short-term motor learning. *NeuroImage,* 172:864-873
32. **Ossmy, O.**, Mukamel, R. (2017). Using virtual reality to transfer motor skill knowledge from one hand to another. *Journal of Visualized Experiments: JoVE*, (127)
33. **Ossmy, O.**, Mukamel, R. (2017). Short term motor-skill acquisition improves with size of self-controlled virtual hands. *PloS One*, 12(1), e0168520
34. **Ossmy, O.**, Mukamel, R. (2016). Neural network underlying intermanual skill transfer in humans. *Cell Reports*, 17:2891-2900
35. **Ossmy, O.**, Mukamel, R. (2016). Activity in superior parietal cortex during training by observation predicts asymmetric learning levels across hands. *Scientific Reports*, 6:32133
36. **Ossmy, O.**, Fried, I., Mukamel, R. (2015). Decoding speech perception from single cell activity in humans. *NeuroImage*, 117:151-159

37. Reznik, D., **Ossmy, O.**, Mukamel, R. (2015). Enhanced auditory evoked activity to self-generated sounds is mediated by primary and supplementary motor cortices. *The Journal of Neuroscience*, 35:2173-2180
38. **Ossmy, O.**, Ben-Shachar, M., Mukamel, R. (2014). Decoding letter position in word reading. *Cortex*, 59:74-83
39. **Ossmy, O.**, Moran, R., Pfeffer, T., Tsetsos, K., Usher, M., & Donner, T. H. (2013). The timescale of perceptual evidence integration can be adapted to the environment. *Current Biology*, 23:981-986
40. **Ossmy, O.**, Tam, O., Puzis, R., Rokach, L., Inbar, O., & Elovici, Y. (2011). MindDesktop - computer accessibility for severely handicapped. *ICEIS*:316-320

PREPRINTS\UNDER REVIEW\IN REVISION:

41. **Ossmy, O.**, Mukamel, R. (in revision). Defining functional brain networks using unsupervised density-peak clustering. Preprint: https://doi.org/10.31234/osf.io/hkrzw
42. **Ossmy, O.***, Han, D.*, Cheng, M., Bianco, C., Kaplan, B., Adolph, K.E. (in revision). "Where" and "how": Developmental processes in exploring solutions to problems with hidden demands. Preprint: https://doi.org/10.31234/osf.io/m7tcr
43. Hancock, L., **Ossmy, O.,** (in revision). Using data-driven approach to test the link between physical activity and cognitive skills during aging. Preprint: https://doi.org/10.31234/osf.io/xq4v7
44. Masek, L., Suarez-Rivera, C., **Ossmy, O.**, Tamis-Lemonda, C. (in revision). The temporal distribution of speech to infants highlights connections among words.
45. Ghilardi, T., **Ossmy, O.** (under review). A Pupil-dilation technique to test developmental differences in visual synchrony during free viewing. Preprint: https://doi.org/10.31234/osf.io/jae6c
46. Peleg, N., Mcauley, H., **Ossmy, O.** (under review). Better together: Classroom-based social intervention for spatial skills. Preprint: https://osf.io/ayvn2
47. Ghilardi, T., Keen, R., Benzaquen, E., **Ossmy, O.** (under review). Getting the proper grip: A longitudinal study of how infants learn to adapt action plans.
48. Dexter, M., Grandchamp Des Raux, H., **Ossmy, O.** (under review). The effects of aging on physical reasoning.
49. Muszynska, M., **Ossmy, O.** (under review). A multivariate analysis links variations in ADHD characteristics to physical reasoning. https://doi.org/10.31234/osf.io/a5geh
50. Muszynska, M., Varma, R., **Ossmy, O.** (under review). Beyond diagnosis: Why and how to use virtual reality in research on neurodiversity? https://doi.org/10.31234/osf.io/aq389
51. Hascher, S., **Ossmy, O.**, Pontes, H., (under review). Systematic Literature Review on Psychological Treatment Methods for Substance Use Disorder and Food Addiction.
52. Serino, G., **Ossmy, O.** (under review). Toward a Causal Science of Early Physical Play?
53. **Ossmy, O.**, Krishna, A., Ghilardi, T., Pope, J., Todorovic, S., Adolph, K.E. (under review). Computer Vision and Machine Learning Reveal Developmental Changes in Children's Continuous Real-Time Perceptual-Motor Planning.
54. Peleg, N., Tolmie, A., **Ossmy, O.** (under review). A graph-theory approach for testing children's block construction.
55. Muszynska, M., Dalton, R., Pinti, P., Kumar, S., Farran, E., **Ossmy, O.** (under review). Using virtual reality and psychophysics to test individual differences in embodied cognition in children with ADHD.
56. **Ossmy, O.,** Rowan, H., Sotoodeh, S., Hall, J., Donati, G., Forrester, G. (under review). Frequent, Scalable and Global Use of "Intelligent Onesies" to Quantify Newborns' Spontaneous Movements in Natural Settings.

MANUSCRIPTS IN PREPARATION:

- **Ossmy, O.,** Adolph, K.E. (in prep). Computer vision in developmental science: The hits and misses in automatic video analysis.
- Grandchamp Des Raux, H., Ferre, E.R., **Ossmy, O.** (in prep). Real-time embodied experience affects high-level reasoning.
- Deadman, T., Franchak, J., **Ossmy, O.** (in prep). A new approach to visual synchrony using Gaussian blur
- Grandchamp Des Raux, H., Planells, H., **Ossmy, O.** (in prep). Active and variable training improves the ability to solve planning problems.

- Lakner, V., **Ossmy, O.**, Mareschal, D. (in prep). Computational modelling of the emergence of gaze following.

PATENTS

Ossmy, O., Tam, O., Rozen, A., & Puzis, R. European Patent 20110008206. Designation as inventor.

PROFESSIONAL ACADEMIC SERVICE

2025-present	Organizing committee, *International Congress of Infant Studies (ICIS)*
2024-present	Associate Editor, *Developmental Science*
2022-present	Review Editor, *Frontiers in Cognition*
2022-present	Workshop organizer. International Workshop for Naturalistic Experimentation of Child Development (NECD) for first-generation PhD students.
2022-present	Workshop organizer. Extended Reality in Educational and Developmental Psychology.
2020-present	Topic Editor, *Brain Sciences*
2019-present	Workshop organizer: *Datavyu*, *AutoViDev*
2017-present	Workshop mentor: *Datavyu*, *Databrary*
2013-present	Small workshop organizer/mentor: MATLAB, R, Python, machine learning principles
2014-present	Ad-hoc reviewer: *Developmental Science*, *NeuroImage*, eLife, *Perspective on Psychological Science, Developmental Psychology, Infancy, Journal of Experimental Child Psychology, Human Movement Science*, *Brain Sciences*, *Scientific Reports, Scientific Data, Frontiers in Neurorobotics, Frontiers in Robotics and AI, Frontiers in Human Neuroscience, Frontiers in Psychology, Frontiers in Cognition, Plos One, International Congress of Infants Studies, Applied Science*
2016	Workshop organizer: *What do we do after getting PhD?*

PROFESSIONAL EXPERIENCE

2024-present	*Troo* Advisory Board Providing consultancy to app on empowering child education
2022-present	*Hera* Advisory Board Providing consultancy to tracking app of human development.
2021-present	*New York University* Research consultancy Support data collection, analyses, and finding dissemination of DARPA-funded project on machine-learning common sense.
2008-2015	*Microsoft, Israel R&D Center* Software Development Engineer (SDE) Coding for Microsoft products, software designs, and user-interface development in business intelligence, security essentials and enterprise management.
2007-2008	*Intel, Fab-18, Israel* Development Engineer (SDE) Developed products for Intel factories and adjusting existing systems to .NET.

CONFERENCE PRESENTATIONS & INVITED TALKS

Ossmy, O. (2025, February). Physical Cognition in Altered Gravity. *Embodied Seminar, UC Berkley*, Berkley, US.

Grandchamp dex Raux, H., Ghilardi, T., Ferre, E.**, Ossmy, O.** (2024, September). Physical Cognition: How Real-Time Embodied Experience Affects High-Level Reasoning. *European Low Gravity Research Association (ELGRA)*. Liverpool, UK

Peleg, N**.,** Tolmie, A., **Ossmy, O.** (2024, July). A Novel Spatial Skills Training for Primary-aged Children to Improve Science Learning. *International Mind, Brain and Education Society annual Conference.* Leuven, Belgium

Ossmy, O., (2024, July). Toy Intelligence: Automated Monitoring of General Movements and Natural Object Play. *The International Congress of Infant Studies*, Glasgow, Scotland

Ghilardi, T., Keen, R., Benzaquen, E., **Ossmy, O.**, (2024, July). Getting the proper grip: A longitudinal study of how infants learn to adapt action plans. *The International Congress of Infant Studies*, Glasgow, Scotland

Hall, J., Donati, G., Sotoodeh, S., Rowan, H., Forrester, G., **Ossmy, O.**, (2024, July). A Translational Investigation: From Qualitative Clinical Assessments to a Quantitative Coding Scheme of Infant General Movements. *The International Congress of Infant Studies*, Glasgow, Scotland

Han, D., **Ossmy, O.**, (2024, July). *The International Congress of Infant Studies*, Glasgow, Scotland

Sotoodeh, S., Hall, J., Donati, G., Rowan, H., Kaur, A., Forrester, G. (2024, July). From Key Points to Key Insights: Probing Infant Motor Development with Different Computer-Vision Algorithms. *The International Congress of Infant Studies*, Glasgow, Scotland

Muszynska, M., **Ossmy, O.** (2024, June). Using Embodied Virtual Reality to Characterise Individual Differences in Cognitive Skills across School-Aged Children with ADHD. *Neurodevelopmental Annual Seminar conference.* Norwich, UK

Sotoodeh, S., Hall, J.**, Ossmy, O.,** Donati, G., Rowan, H., Kaur, A., Forrester, G. (2024, June). Early movement features can predict later social-communication ability in children: BabyGrow Study. *International Motor Development Research Consortium*, Ghent, Belgium

Peleg, N., **Ossmy, O.** (2024, June). How Children and Adults Integrate Spatial Information from Different Sources. *UK Sensorimotor Conference.* Cambridge, UK

Cebrecos, M.P., **Ossmy, O.,** Mareschal, D., (2024, June). The Kinematics of Social Interactions: Investigating the Emergence of Collaborative and Competitive Behaviours in Children. *UK Sensorimotor Conference.* Cambridge, UK

Grandchamp dex Raux, H., Ghilardi, T., Ferre, E.**, Ossmy, O.** (2024, June). Physical Cognition: How Real-Time Embodied Experience Affects High-Level Reasoning. *UK Sensorimotor Conference.* Cambridge, UK

Alford, A., Ghilardi, T., Longo, M., **Ossmy, O.** (2024, June). How Probabilistic and Biased Is Action Planning During Object Manipulation? *UK Sensorimotor Conference.* Cambridge, UK

Muszynska, M., **Ossmy, O.** (2024, June). Using Embodied Virtual Reality to Characterise Individual Differences in Cognitive Skills across School-Aged Children with ADHD. *UK Sensorimotor Conference.* Cambridge, UK

Haq**,** M.**,** Grandchamp dex Raux, H., Benzaquen, E., Hornby, S., **Ossmy, O.** (2024, June). The Effects of Embodied Experience on Adapting Reasoning to Altered Physics. *UK Sensorimotor Conference.* Cambridge, UK

Peleg, N., **Ossmy, O.** (2024, June). How Children and Adults Integrate Spatial Information from Different Sources. *Jean Piaget Society Annual Conference*. Toronto, Canada

Cebrecos, M.P., **Ossmy, O.,** Mareschal, D., (2024, June). The Kinematics of Social Interactions: Investigating the Emergence of Collaborative and Competitive Behaviours in Children. *Jean Piaget Society Annual Conference*. Toronto, Canada

Ossmy, O., Krishna, A., Todorovic, S., Adolph, K.E. (2024, June). Developmental Changes in Children's Intuitive Reasoning about Physics while Building Block Towers. *Jean Piaget Society Annual Conference*. Toronto, Canada

Ossmy, O. (2024, June). The Effects of Embodied Experience on Adapting Reasoning to Altered Physics. *Jean Piaget Society Annual Conference.* Toronto, Canada

Ossmy, O., Krishna, A., Todorovic, S., Adolph, K.E. (2024, March). Developmental Changes in Children's Intuitive Reasoning about Physics while Building Block Towers. *Jean Piaget Society Annual Conference*. Pasadena, CA, USA

Ossmy, O. (2024, February). From macro to micro in the development of problem solving. University of Durham, UK

Grandchamp dex Raux, H., Ghilardi, T., Ferre, E.**, Ossmy, O.** (2024, January). Physical Cognition: How Real-Time Embodied Experience Affects High-Level Reasoning. *Experimental Psychology Society.* London, UK

Cerbecos, M.P., **Ossmy, O.**, Mareschal, D. (2024, January). The Emergence of Collaborative and Competitive Behaviour: Insights from Kinematics, *Budapest CEU Conference on Cognitive Development,* Budapest, Hungry

Ossmy, O. Han, D., Adolph, K.E. (2023, September). Using robot simulations to model the role of errors in infant walking. *British Psychology Society conference - Developmental & Cognitive Sections*. Bristol, UK

Ossmy, O. Han, D., Adolph, K.E. (2023, August). Walking and falling: Using robot simulations to model the role of errors in infant walking. *Lancaster International Conference on Infant and Early Child Development*. Lancaster, UK

Ossmy, O. Han, D., Cheng, M., Bianco, C., Kaplan, B., Adolph, K.E. (2023, August). "where" and "how": developmental processes in exploring solutions to problems with hidden demands. *Lancaster International Conference on Infant and Early Child Development*. Lancaster, UK

Ossmy, O. (2023, May). Studying embodied learning in children. *Mind in Motion workshop*. Atlanta, US

Grandchamp Des Raux, H., **Ossmy, O.** (2023, March). Identifying the origins of adaptive behavior using altered gravity environments. *International Convention of Psychological Science*. Brussels, Belgium

Grandchamp Des Raux, H., **Ossmy, O.** (2023, March). The role of variability and agency in learning to plan. *International Convention of Psychological Science*. Brussels, Belgium

Mcauley, J., Hayward, J., **Ossmy, O.** (2023, January). Better together: Classroom-based social intervention for spatial skills, *Budapest CEU Conference on Cognitive Development,* Budapest, Hungry

Grandchamp Des Raux, H., **Ossmy, O.** (2023, January). The effects of rewards on rapid trial-and-error learning in school-age children, *Budapest CEU Conference on Cognitive Development,* Budapest, Hungry

Cerbecos, M.P., **Ossmy, O.**, Mareschal, D. (2023, January). The emergence of collaborative play: Insights from kinematics, *Budapest CEU Conference on Cognitive Development,* Budapest, Hungry

Ossmy, O. (2022, December). From macro to micro in the development of problem solving. *University of Surrey,* UK

Ossmy, O. (2022, November). A real-time approach to the development of problem solving. *International Society for Developmental Psychobiology (ISDP)*. San Diego, US [Virtual]

Hayward, J., **Ossmy, O.** (2022, September). Better together: Classroom-based social intervention for spatial skills, *British Psychology Society conference - Developmental Section*, Sheffield, UK

Grandchamp Des Raux, H., **Ossmy, O.** (2022, September). The effects of rewards on rapid trial-and-error learning in school-age children, *British Psychology Society conference - Developmental Section*, Sheffield, UK

Ossmy, O. Han, D., Cheng, M., Bianco, C., Kaplan, B., Adolph, K.E. (2022, September). First "where" and then "how": developmental processes in exploring solutions to problems with hidden demands, *British Psychology Society conference - Developmental Section*, Sheffield, UK

Ossmy, O. (2022, September). Toy intelligence: Automated monitoring of natural object play, *British Psychology Society conference - Developmental Section*, Sheffield, UK

Ossmy, O. (2022, September). From macro to micro: The benefits of simultaneous real-time measurements of problem solving in preschoolers, *British Psychology Society conference - Developmental Section*, Sheffield, UK

Ossmy, O. (2022, April). From macro to micro: Real-time measurements of development. Center for Cognition, Action & Perception, *University of Cincinnati,* US

Ossmy, O. (2021, June). The developmental process in discovering and implementing solutions to problems with hidden demands. *Jean Piaget Society Annual Conference* [Virtual]

Ossmy, O. (2021, June). The role of task modality in understanding inhibitory control demands in preschoolers. *Jean Piaget Society Annual Conference* [Virtual]

Ossmy, O. (2021, January). Defining functional networks in the brain using density-peak clustering. *International Conference on Neuro Imaging and Cognitive Neuroscience*, London, UK [Virtual]

Ossmy, O. (2020, November). Real-time processes in the development of problem solving, *Centre for Brain and Cognitive Development, Birkbeck College,* London, UK [Virtual]

Ossmy, O. (2020, November). Real-time processes in the development of problem solving, *Cognitive Research at McGill, McGill University,* Montreal, Québec, Canada [Virtual]

Ossmy, O. (2020, October). A real-time approach to the development of problem solving. *Perception, Action, Cognition: Development and Plasticity*, *Interactive Neuroscience and Cognition Center*, Université de Paris, Paris, France [Virtual]

Ossmy, O. (2020, October). Looking without seeing: Children do not distinguish efficient from inefficient means to achieve a goal. *International Society for Developmental Psychobiology* [Virtual]

Ossmy, O. (2020, October). A real-time approach to the development of problem solving. *Tenenbaum lab*, *Massachusetts Institute of Technology*, Cambridge, MA, USA [Virtual]

Ossmy, O. (2020, July). A behavioral approach to the development of common sense. Origins of Common Sense Workshop. *Cognitive Science Society*, Totonto, Canada [Virtual]

Ossmy, O., Adolph, K.E. (2020, July). The effect of experience on locomotor problem solving: A real-time approach using machine learning. *The International Congress of Infant Studies*, Glasgow, Scotland [Virtual]

Ossmy, O., Hoch, J., Han, D., MacAlpine, P., Stone, P.**,** Adolph, K.E. (2020, July). Walking and falling: Using simulated robots to model variability and error in the development of infant walking. *The International Congress of Infant Studies*, Glasgow, Scotland [Virtual]

Ossmy, O., Cheng, M., Bianco, C., Kaplan, B., Adolph, K.E. (2020, July). Developmental process in discovering and implementing solutions to problems with hidden demands. *The International Congress of Infant Studies*, Glasgow, Scotland [Virtual]

Suarez-Rivera, C., **Ossmy, O.**, Tamis-Lemonda, C. (2020, July). The temporal structure of spontaneous language to infants at home: Regularities in semantic and functional word connections. *The International Congress of Infant Studies*, Glasgow, Scotland [Virtual]

Tamis-Lemonda, C., West, K., Suarez-Rivera, C., **Ossmy, O.** (2020, July). Fine-grained environmental data illuminate the process of language learning. *The International Congress of Infant Studies*, Glasgow, Scotland [Virtual]

Ossmy, O. (2019, December). The development of problem solving: Real-time, integrative approach. Psychology and Neuroscience colloquium, *Tel Aviv University*, Tel Aviv, Israel

Ossmy, O. (2019, November). The development of problem solving: Real-time, integrative approach. Developmental Psychology colloquium, *CUNY*, New York, NY, USA

Ossmy, O., Kaplan, B., Han, D., Xu, M., Bianco, C., Adolph, K.E (2019, October). What eye tracking and EEG tell us about the perception of multistep actions in children and adults. *Cognitive Development Society,* Louisville, KY, USA

Ossmy, O., Kaplan, B. E., Xu, M., & Adolph, K. E. (2019, August). An integrative approach to the development of problem solving. *Flux Society*, New York, NY, USA

Ossmy, O. (2019, May). An integrative approach to the development of problem solving. Cognitive and Comparative Psychology colloquium, *CUNY*, New York, NY, USA

Ossmy, O., Gilmore, R.O., Adolph, K.E. (2019, April). AutoViDev: A computer-vision framework to enhance and accelerate research in human development. *Computer Vision Conference,* Las Vegas, NV, USA

Ossmy, O., Han, D., Cheng, M., Kaplan, B., Adolph, K.E. (2019, March). Real-time problem solving in children and adults: The development of predictive planning in object fitting. *Society for Research in Child Development,* Baltimore, MD, USA

Ossmy, O.*, Hoch, J. *, Han D., MacAlpine, P., Stone, P., Adolph, K.E. (2019, March). Walking and falling: Using simulated robots to model variability and error in the development of infant walking. *Society for Research in Child Development,* Baltimore, MD, USA

Ossmy, O., Kaplan, B., Han, D., Xu, M., Bianco, C., Adolph, K.E (2019, March). What eye tracking and EEG tell us about the perception of multistep actions in children and adults. *Society for Research in Child Development,* Baltimore, MD, USA

Ossmy, O., Adolph, K.E. (2019, March). A machine-learning approach to the development of problem solving in infant locomotion. *Society for Research in Child Development,* Baltimore, MD, USA

Karasik, L.B., Fernandes, S., **Ossmy, O.**, Tamis-LeMonda, C.S., Adolph, K.E (2019, March). Effects of restrictive childrearing practices in Tajikistan on motor development. *Society for Research in Child Development,* Baltimore, MD, USA

DeCamp, C., **Ossmy, O.**, Herzeberg-Keller, O., Fletcher, K., Schatz, J., McCallum, J., Tamis-LeMonda, C.S., Adolph K.E. (2019, March). Gendered color preferences in infants' everyday interactions with objects. *Society for Research in Child Development,* Baltimore, MD, USA

Shuster, A., Inzelberg, L., **Ossmy, O.**, Izakson, L., Hanein, Y., Levy, D. (2018, October). Lie to my face: EMG study of facial expressions associated with deception. *Society for Neuroeconomics*, Philadelphia, PA, USA

Ossmy, O., Hoch, J., MacAlpine, P., Hasan, S., Stone, P., & Adolph, K. E. (2018, July). Variety wins: Soccer-playing robots and infant walking. *The International Congress of Infant Studies*, Philadelphia, PA, USA

Ossmy, O., Hoch, J., Hasan, S., Cole, W. G., & Adolph, K. E. (2018, July). Dancing together: The nature of infant-mother locomotor synchrony. *The International Congress of Infant Studies*, Philadelphia, PA, USA

Hoch, J.*, **Ossmy, O.***, & Adolph, K. E. (2018, July). Foraging in the playroom: Towards a model of human infant locomotor play. *The International Congress of Infant Studies*, Philadelphia, PA, USA

Hoch, J., **Ossmy, O.**, Han, D., Heiman, C., Lee, D.K., Cole, W.G., & Adolph, K. E. (2018, July). Learning to walk: Immense and varied input. *The International Congress of Infant Studies*, Philadelphia, PA, USA

Adolph, K.E., **Ossmy, O.**, Hoch, J., & Cole, W.G. (2018, July). (Re)using video to document procedures, illustrate findings, grow sample sizes, and ask new questions. *The International Congress of Infant Studies*, Philadelphia, PA, USA

Ossmy, O., Hoch, J., Hasan, S., Cole, W. G., & Adolph, K. E. (2018, May). Dancing together: The nature of infant-mother locomotor synchrony. *Social & Affective Neuroscience Society*, New-York, NY, USA.

Ossmy, O., Kaplan, B. E., Xu, M., & Adolph, K. E. (2018, March). Development in flexibility in tool use. *Cognitive Neuroscience Society*, Boston, MA, USA

Izakson, L., Shuster, A., **Ossmy, O.**, Inzelberg, L., Sela, T., Hanein, Y., & Levy, D. (2017, December). Lie to my face: detecting lies through facial expressions. *Israel Society for Neuroscience*, Eilat, Israel.

Hoch, J., **Ossmy, O.**, Adolph, K.E. (2017, November). *Mathematical Biosciences Institute (MBI) Workshop: Sensorimotor control of animals and robots*, Columbus, OH, USA

Ossmy, O., Kaplan, B. E., Xu, M., & Adolph, K. E. (2017, November). Neural patterns underlying the development of planning in tool use. *Society for Neuroscience*, Washington, DC, USA

Hoch, J.*, **Ossmy, O.***, & Adolph, K. E. (2017, November). Foraging in the playroom: Random walk behavior in human infants. *International Society for Developmental Psychobiology*, Washington, DC, USA

Hoch, J.*, **Ossmy, O.***, MacAlpine, P., Hasan, S., Stone, P., & Adolph, K. E. (2017, November). Variety matters: What can we learn about infant walking from soccer-playing robots. *International Society for Developmental Psychobiology,* Washington, DC, USA

Ossmy, O., Kaplan, B. E., Xu, M., & Adolph, K. E. (2017, November). Neural patterns underlying the development of planning in tool use. *International Society for Developmental Psychobiology*, Washington, DC, USA

Ossmy, O., Hoch, J., Hasan, S., Cole, W. G., & Adolph, K. E. (2017, November). Dancing together: The nature of infant-mother locomotor synchrony. *International Society for Developmental Psychobiology*, Washington, DC, USA

Ossmy, O., Kaplan, B. E., Xu, M., & Adolph, K. E. (2017, November). Neural patterns underlying the development of planning in tool use. Mind in motion: The development of cognitive processes in real time*. Cognitive Development Society*, Portland, OR, USA

Hoch, J.*, **Ossmy, O.***, & Adolph, K. E. (2017, November). Foraging in the playroom: Random walk behavior in human infants. *Cognitive Development Society*, Portland, OR, USA

Hoch, J.*, **Ossmy, O.***, MacAlpine, P., Hasan, S., Stone, P., & Adolph, K. E. (2017, November). Variety matters: What can we learn about infant walking from soccer-playing robots. *Cognitive Development Society*, Portland, OR, USA

Ossmy, O., Mukamel, R. (2016, June). SMA sensitivity to visual feedback corresponds with subsequent motor learning. *Organization Human Brain Mapping*, Geneva, Switzerland

Ossmy, O., Simon, S. & Mukamel, R. (2016, June). Defining functional networks in the brain using density peaks and clustering. *Pattern Recognition in Neuroimaging*. Trento, Italy

Ossmy, O. & Mukamel, R. (2015, December). My left hand actually does know what my right hand is doing: The neural networks underlying intermanual skill transfer in humans. *Israel Society for Neuroscience*, Eilat, Israel

Ossmy, O. & Mukamel, R. (2015, December). Activity in superior parietal lobule during training by observation predicts subsequent performance gains. *Israel Society for Neuroscience*, Eilat, Israel

Ossmy, O. & Mukamel, R. (2015, October). Neural substrates of enhanced intermanual skill transfer during online manipulation of visual feedback. *Society for Neuroscience*, Chicago, IL, USA

Ossmy, O. & Mukamel, R. (2015, October). Activity in superior parietal lobule during training by observation predicts subsequent performance gains. *Society for Neuroscience*, Chicago, IL, USA

Ossmy, O. & Mukamel, R. (2015, June). Neural substrates of enhanced intermanual skill transfer during online manipulation of visual feedback. *Computational Motor Control Workshop and Agricultural, Biological and Cognitive Robotics Initiative*, Beer-Sheva, Israel

Ossmy, O., Lakertz, Y. & Mukamel, R. (2015, June). Motor Neuro-Kinemes: neural representation schemes of primitive motor movements. *Computational Motor Control Workshop and Agricultural, Biological and Cognitive Robotics Initiative*, Beer-Sheva, Israel

Ossmy, O. & Mukamel, R. (2015, April). Neural substrates of enhanced intermanual skill transfer during online manipulation of visual feedback. *Federation of European Neuroscience Societies Forum*, Copenhagen, Denmark

Ossmy, O. & Mukamel, R. (2014, December). Virtual Reality for motor learning: Decouple movements from visual perception to create novel transfer effect. *Israel Society for Neuroscience*, Eilat, Israel

Ossmy, O., Fried, I. & Mukamel, R. (2014, December). Decoding Speech Perception from Single Cell Activity in Humans. *Israel Society for Neuroscience*, Eilat, Israel

Ossmy, O. & Mukamel, R. (2014, December). Motor Neuro-Kinemes: Identifying the neural 'building-blocks' of human complex movements. *Israel Society for Neuroscience*, Eilat, Israel

Ossmy, O., Fried, I. & Mukamel, R. (2014, December). Decoding Speech Perception from Single Cell Activity in Humans. *Israel Society for Auditory Research*, Eilat, Israel

Ossmy, O. & Mukamel, R. (2014, June). Motor Neuro-Kinemes: Identifying the neural 'building-blocks' of human complex movements *Computational Motor Control Workshop and Agricultural, Biological and Cognitive Robotics Initiative*, Beer-Sheva, Israel

Ossmy, O. & Puzis, R. (2013, April). *President Barak Obama: Israeli Innovators Conference*, Jerusalem, Israel

Ossmy, O., Ben-Shachar, M. & Mukamel, R. (2013, December). Decoding letter position in word reading. *Israel Society for Neuroscience*, Eilat, Israel

Ossmy, O., Ben-Shachar, M. & Mukamel, R. (2013, November). Decoding letter position in word reading. *Society for Neuroscience*, San Diego, CA, USA

Ossmy, O., Ben-Shachar, M. & Mukamel, R. (2013, November). Decoding letter position in word reading. *Society for the Neurobiology of Language*, San Diego, CA, USA

Ossmy, O. & Usher, M. (2012, December). Time scale adaptation for evidence integration in human vision. *Israel Society for Neuroscience*, Eilat, Israel

Ossmy, O., Tam, O., Puzis, R., Rokach, L., Inbar, O., & Elovici, Y. (2011, June). MindDesktop - computer accessibility for severely handicapped. *International Conference on Enterprise Information Systems*, Beijing, China

RESEARCH FEATURES IN PUBLIC MEDIA

2024	Brain Hacks, *BBC News*
2024	Why we're still smarter than machines, *BBC REEL*
2022	Babies, Robots, and in Between, *Bluedot Festival*,
2022	Clear the dance floor: Baby steps happening here. *Early Learning Nation*
2021	Israeli tech detects liars with electrode stickers. *News in 24*
2019	Robots can learn walking from motor actions of infants? *SAIConference*
2018	The way toddlers waddle can teach robot footballers how to play. *New Scientist*
2018	Your left hand knows what your right hand is doing. *Science Daily*
2017	General-purpose brain-computer interface brings thought control to any PC. *MIT Technology Review*
2017	Controlling computers with our mind is getting easier... slowly. *VICE*
2017	3D virtual reality therapy could help repair damaged limbs. *NoCamels*
2016	Scientists harness virtual reality to teach damaged limbs new tricks. *Haaretz*
2016	New study reveals your left hand DOES know what your right is doing. *Sunday Express*
2016	New virtual reality technology may improve motor skills in damaged limbs. *Science Daily*
2016	New Israeli virtual reality tech could rehabilitate damaged limbs, stroke patients. *The Jerusalem Post*
2016	VR could improve mobility of physically impaired. *Innovators Magazine*
2016	Scientists harness virtual reality to help stroke rehabilitation. *Ynet* (Hebrew)
2016	Science might help patients after stroke. *Israeli Braodcast* (Hebrew)
2011	BGU may help disabled use computers with thoughts. *The Jerusalem Post*
2011	Students develop thought-controlled, hands-free computer for the disabled. *Science Daily*
2011	Ben-Gurion University students develop thought-controlled, hands-free computer for the disabled. *Medical Daily*

UNDERGRADUATE/GRADUATE STUDENTS MENTORED

I am supervising and have supervised 5 post-doctoral researchers, 11 PhD students, 63 MSc students and 35 undergraduate students. Students under my supervision received 3 Poster Awards and 2 Thesis Awards.

VOLUNTEER EXPERIENCE

2016 Content developer. Developed content on psychology and neuroscience to high-school lecturers in ORT Israel school network. The content includes cognitive, motor and perceptual processes in the brain and the ethic limitations of neuroscience research

2016 “HelloWorld” Social enterprise. Development Advisor. Managed developers and designed devices to provide accessibility to individuals with physical disabilities

2015 In-home educator of assistive technology to improve functional capabilities of children with motor impairmentss