

## ALLEGATO B

### UNIVERSITÀ DEGLI STUDI DI MILANO

selezione pubblica per n. 1 posto di Ricercatore a tempo determinato in tenure track (RTT)  
per il settore concorsuale 11/E1 - PSICOLOGIA GENERALE, PSICOBIOLOGIA E PSICOMETRIA ,  
settore scientifico-disciplinare M-PSI/01 - PSICOLOGIA GENERALE  
presso il Dipartimento di Dipartimento di Fisiopatologia Medico-Chirurgica e dei Trapianti,  
(avviso bando pubblicato sulla G.U. n. 35 del 30/04/2024) Codice concorso 5539

## Atesh Koul CURRICULUM VITAE

### INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	KOUL
NOME	ATESH

### TITOLI

#### TITOLO DI STUDIO

(indicare la Laurea conseguita inserendo titolo, Ateneo, data di conseguimento, ecc.)

2005 - 2009 B.Tech (Engineering) in Biotechnology- National Institute of Technology, Durgapur, India  
First Class Distinction (CGPA 8.93/10).  
Degree awarded: 07-11-2009

#### TITOLO DI DOTTORE DI RICERCA O EQUIVALENTI, OVVERO, PER I SETTORI INTERESSATI, DEL DIPLOMA DI SPECIALIZZAZIONE MEDICA O EQUIVALENTE, CONSEGUITO IN ITALIA O ALL'ESTERO

(inserire titolo, ente, data di conseguimento, ecc.)

2014-2017 Fellow PhD - Under guidance of Prof. Cristina Becchio; University of Genova, Genoa, Italy and Fondazione Istituto Italiano di Tecnologia, Genova.  
Title: "Understanding mechanisms of inferring prior-intentions from movement."  
Degree awarded : 30-04-2017

#### CONTRATTI DI RICERCA, ASSEGNI DI RICERCA O EQUIVALENTI

(per ciascun contratto stipulato, inserire università/ente, data di inizio e fine, ecc.)

01-01-2017 - 31-12-2017 Assegno di Ricerca - University of Torino, Turin, Italy  
Project title: "Multivariate analyses of quantitative behavioral data based on machine learning models"

**ATTIVITÀ DIDATTICA A LIVELLO UNIVERSITARIO IN ITALIA O ALL'ESTERO**

(inserire periodo [gg/mm/aa inizio e fine], anno accademico, ateneo, corso laurea, numero ore, ecc.)

<b>21-04-2020</b>	<b>Online Practical machine learning course</b> (on Posit Cloud) Hands-on course on practical machine learning in R. <a href="https://rstudio.cloud/spaces/64240/project/1165736">https://rstudio.cloud/spaces/64240/project/1165736</a> (3 hours)
<b>09-07-2019</b>	<b>University of Genova.</b> Doctoral Course (Department of engineering): "PredPsych": an R based toolbox for machine learning in experimental psychology. (6 hours)
<b>24-05-2018</b>	<b>University of Turin</b> Doctoral Course (Department of Psychology): "PredPsych": an R based toolbox for machine learning in experimental psychology. (6 hours)
<b>17-05-2016</b>	<b>University of Turin</b> Guest lecture: Practical fMRI in the course "Psicologia dell'azione" (1 hour)

**DOCUMENTATA ATTIVITÀ DI FORMAZIONE O DI RICERCA PRESSO QUALIFICATI ISTITUTI ITALIANI O STRANIERI;**

(inserire anno accademico, ente, corso, periodo, ecc.)

<b>2021-current</b>	Post-doctoral Fellow - Neuroscience of Perception and Action lab, Center for Life Nano- & Neuro-Science (CLN2S), Italian Institute of Technology, Rome, Italy. Project title: " <b>Understanding the neural mechanisms underlying interpersonal social interaction</b> "
<b>2021- current</b>	Research Fellow - Department of Developmental and Educational Psychology, University of Vienna, Vienna, Austria. Project title: " <b>Unobtrusive deep learning-based analysis from infant videos</b> "
<b>2020 - 2021</b>	Post-doctoral Fellow - Neuroscience and Behaviour lab, Italian Institute of Technology, Rome, Italy. Project title: " <b>Sensorimotor integration in the context of collaborative motor tasks</b> "
<b>2018 - 2019</b>	Post-doctoral Fellow - Fondazione Istituto Italiano di Tecnologia, Genoa, Italy. Project title: " <b>Neural basis of understanding others' intentions from movements</b> "
<b>2018</b>	Visiting Fellow - University of Trento, Roverto, Italy. Project title: " <b>Computational models of understanding others' intentions from movements</b> "
<b>2010 - 2013</b>	Research Fellow - National Brain Research Centre, Gurgaon, India. Project title: " <b>Modulation of attention networks during numerical processing in binumerates</b> "

**REALIZZAZIONE DI ATTIVITÀ PROGETTUALE**

(indicare, data, progetto, ecc.)

<b>2023</b>	<b>Secondary proposer for COST action:</b> A European consortium to determine how complex, real-world environments influence brain development.
<b>2020</b>	<b>Marie Skłodowska-Curie Individual Fellowship</b> (Horizon 2020) approved grant.

**ORGANIZZAZIONE, DIREZIONE E COORDINAMENTO DI GRUPPI DI RICERCA NAZIONALI E INTERNAZIONALI,  
O PARTECIPAZIONE AGLI STESSI**

*(per ciascuna voce inserire anno, ruolo, gruppo di ricerca, ecc.)*

**26-01-2015 to 07-07-2017**

Research project (Collaboration): Predicting Human Intentions from videos. Collaboration on detection of intentions from reach-to-grasp videos.

Collaborator: Prof. Vittorio Murino, Dr. Andrea Zunino, Dr. Jacopo Cavazza

Hosting institution: Department of Computer Science, University of Verona, Verona, Italy; Pattern Analysis & Computer Vision (PAVIS), Italian Institute of Technology, Genova, Italy

**10-07-2015 to 12-04-2018**

Research project (Collaboration): Neural correlates of understanding intentions from hand kinematics. Collaboration on analyzing fMRI data.

Collaborator: Prof. Franco Cauda, Prof. Tommaso Costa

Hosting institution: Department of Psychology, University of Turin, Italy

**03-03-2016 to 03-06-2019**

Research project (Collaboration). Behavioral and neural correlates of interpersonal predictive coding. Collaboration on the behavioral analysis of data using hierarchical drift diffusion modeling

Collaborator: Prof. Dr. Leonhard Schilbach, Dr. Imme C Zillekens.

Hosting institution: Max Planck Institute of Psychiatry, Munich, Germany; International Max Planck Research School for Translational Psychiatry, Munich, Germany; Department of Psychiatry, Ludwig-Maximilians-Universität, Munich, Germany.

**30-08-2016 to 06-03-2019**

Research project (Collaboration): Gaze behavior in group interactions. Collaboration on analyzing behavioral gaze data during a group social interaction task through machine learning.

Collaborator: Dr. Jelena Ristic, Prof. Andrew P. Bayliss, Prof. Stefano Livi, Prof. Vittorio Murino, Prof. Antonio Pierro, Dr. Francesca Capozzi

Hosting institutions: Department of Psychology, McGill University, Montreal, Canada; School of Psychology, University of East Anglia, Norwich, UK; Department of Social and Developmental Psychology, University of Rome "La Sapienza", Rome 00185, Italy; Department of Computer Science, University of Verona, Verona 37134, Italy

**31-08-2018 to 18-12-2018**

Research project (Collaboration): Computational models of understanding others' intentions from movements. Collaboration on developing regression based models for intention understanding.

Collaborator: Prof. Stefano Panzeri.

Hosting institution: University of Trento, Rovereto; Italian Institute of Technology, Rovereto.

**01-01-2020 a oggi**

Research project (Collaboration): Neural and behavioral synchrony in Macaque. Leading the project (in collaboration) on the EEG and video based analysis of body kinematics data from monkeys.

Collaborator: Prof. Alessandra Battaglia Mayer

Hosting institution: Department of Physiology and Pharmacology "VITTORIO ERSPAMER", University of Rome "La Sapienza".

**01-10-2021 a oggi**

Research project (Collaboration): Video-based analysis of infant data. Collaboration on the analysis of body kinematics data from infant videos

Collaborator: Prof. Stefanie Hoehl

Hosting institution: Department of Developmental and Educational Psychology, Faculty of Psychology, University of Vienna

**21-06-2022 a oggi**

Research project (Collaboration): EEG correlates of sub-movements. Collaboration on the EEG correlates of sub-movements during dyadic tasks

Collaborator: Prof. Alessandro D'Ausilio, Dr. Alice Tomassini

Hosting institution: Department of Neuroscience and Rehabilitation, University of Ferrara.

**05-07-2023 a oggi**

Research project (Direction): Hidden markov modeling of spontaneous interpersonal neural synchrony.

Collaborator: Dr. Sarah Faber

Host institute: Simon Fraser University, Canada

**ATTIVITÀ DI RELATORE A CONGRESSI E CONVEGNI NAZIONALI E INTERNAZIONALI**

*(inserire titolo congresso/convegno, data, ecc.)*

03-12-2015

Talk - Koul, A. **Individual movement styles influence intention detection** and co-organization of symposium "**Intention reading - from Science to Autism**" at the International Workshop on Cognitive Development for Friendly Robots and Rehabilitation conference.

22-09-2017

Talk - Koul., **I see what you are doing: how people understand others intentions**. Giornata di studio del Dipartimento di Psicologia, University of Torino

21-07-2017 to 26-07-2017

Invited Talk - Koul A., Cavallo A., Cauda F., Costa T., Diano M., Becchio C. (2017) **Mirroring through kinematics: Decoding others' intentions in the human parieto-frontal network**. 7th Joint Action Meeting in London (UK).

30-11-2017 to 01-12-2017

Keynote speaker - Koul, A., (2017). **"I see what you are doing: how people understand others' intentions"** at the 2 day workshop "Motor Perspectives on Action and Interaction", Potsdam (Berlin), Germany. [https://claudiagianelli.com/home/motor\\_perspectives/](https://claudiagianelli.com/home/motor_perspectives/)

27-09-2018 to 28-09-2018

Invited Talk - Koul A., Cavallo A., Cauda F., Costa T., Diano M., Becchio C. (2018) **Action Observation Areas Represent Intentions From Subtle Kinematic Features**. Talk presented at the international conference "Social cognition in humans and robots" held at Hamburg (Germany).

26-05-2021 to 27-05-2021

Invited Talk - Koul, A., Ahmar, D., Iannetti, G. D., Novembre, G. (2021) **On the emergence of interbrain synchrony**. Talk presented at 33rd Association for Psychological Science (APS) Annual Convention, Washington DC. USA

19-07-2022 to 21-07-2022

Invited Talk - Koul, A., Ahmar, D., Iannetti, G. D., Novembre, G. (2022) **Spontaneous dyadic behavior predicts self-organizing interpersonal neural synchrony**. Talk presented at European Society for Cognitive and Affective Neuroscience (ESCAN) Vienna (Austria)

29-09-2022

Invited Talk - Koul, A. **BIDS for you and me: how BIDS can improve research practices** at Italian Institute of Technology, Genoa.

03-04-2023 to 04-04-2023

Keynote speaker - Koul, A., (2023) **How do we understand and coordinate with others?** at the 2 day workshop "Multimodality in Social Interactions", Marseille (France). <https://multimodalityofsocialinteractions.wordpress.com/>

10-07-2023 to 12-07-2023

Invited Talk - Koul, A., Ahmar, D., Iannetti, G. D., Novembre, G. (2023) **Spontaneous dyadic behavior predicts self-organizing interpersonal neural synchrony**. Talk at 9th Joint Action Meeting (JAM) <https://somy.ceu.edu/jam>

22-05-2024 to 25-05-2024

Invited Talk - Koul, A., Ahmar, D., Iannetti, G. D., Novembre, G. (2023) **Spontaneous dyadic behavior predicts the emergence of interpersonal neural synchrony**. Talk at European Society for Cognitive and Affective Neuroscience, Ghent, Belgium.

**CONSEGUIMENTO DI PREMI E RICONOSCIMENTI NAZIONALI E INTERNAZIONALI PER ATTIVITÀ DI RICERCA**  
(inserire premio, data, ente organizzatore, ecc.)

2023	National Scientific Qualification (Abilitazione Scientifica Nazionale) for 11/E1
2020	Marie Skłodowska-Curie Individual Fellowship (Horizon 2020) approved grant.
2012	Winner of Travel Award for presenting research in "Organization for Human Brain Mapping" 2013 from Department of Biotechnology, India
2011	First position in Neuroscience Course work National Brain Research Center, Gurugram

## PRODUZIONE SCIENTIFICA

### PUBBLICAZIONI SCIENTIFICHE

(per ciascuna pubblicazione indicare: nomi degli autori, titolo completo, casa editrice, data e luogo di pubblicazione, codice ISBN, ISSN, DOI o altro equivalente)

Total no. of publications: <b>24</b> (10 first and last author) Total no. of citations: <b>813</b> (690 since 2019) h-index : <b>14</b> ; i10-index: <b>16</b>		National and international collaborations in <b>red</b> Supervised students in <b>blue</b> ( <b>4 students</b> )  Total IF: <b>106.30</b>
2023	<b>Koul, A.*#</b> , <b>Ahmar, D.</b> , Iannetti, G.D., Novembre, G.* (2023). Spontaneous dyadic behavior predicts the emergence of interpersonal neural synchrony, <i>NeuroImage</i> , 277, 120233. <a href="https://doi.org/10.1016/j.neuroimage.2023.120233">https://doi.org/10.1016/j.neuroimage.2023.120233</a> *Corresponding Author, #Lead Contact [10 citations] <b>Main results:</b> We tested whether and how Interpersonal neural synchrony (INS) might emerge from spontaneous dyadic behavior and found that, even without a structured social task, INS emerges spontaneously. This spontaneous INS was rooted in behavioral synchrony of notable social cues (reciprocated eye contact, body movement and smiling) that Granger caused INS. <b>Contribution:</b> I co-conceptualized this work (along with senior author) as well as independently setup <u>simultaneous acquisition of multiple devices - eye tracker, EEG, ECG, EOG, Video cameras</u> . I performed the data cleaning, hierarchical Bayesian modelling, nonparametric clustering analyses, and interpretation as well as wrote and revised the paper under the guidance of the senior author. <b>Open science practice:</b> Data availability: <a href="https://doi.org/10.48557/WBRZGO">https://doi.org/10.48557/WBRZGO</a> , code availability: <a href="https://github.com/ateshkoul/neural_synchrony">https://github.com/ateshkoul/neural_synchrony</a>	
2023	<b>Koul, A.*#</b> , <b>Ahmar, D.</b> , Iannetti, G.D., Novembre, G.* (2023). Interpersonal synchronization of spontaneously generated body movements, <i>iScience</i> 26(3), 10610. <a href="https://doi.org/10.1016/j.isci.2023.106104">https://doi.org/10.1016/j.isci.2023.106104</a> *Corresponding Author, #Lead Contact [13 citations] <b>Main results:</b> We tested whether spontaneously generated movements synchronize interpersonally. We show that, even without any explicit instruction to move, individuals produce spontaneous body movements that are synchronized with their partners. <b>Contribution:</b> I co-conceptualized this work (along with senior author) as well as independently setup acquisition of frame-locked videos from two cameras. I performed the data cleaning, analysis and interpretation as well as wrote and revised the paper under the guidance of the senior author. <b>Open science practice:</b> Data availability: <a href="https://doi.org/10.48557/4K3WZl">https://doi.org/10.48557/4K3WZl</a> , code availability: <a href="https://github.com/ateshkoul/interpersonal_movement_synch/">https://github.com/ateshkoul/interpersonal_movement_synch/</a>	
2023	Novembre, G., Nguyen, T., Bigand, F., Tucci, V., Papaleo, F., Bianco, R., <b>Koul, A.</b> Sociality and Timing: Correlation or Causation? Comment on 'The evolution of social timing' by Verga L., Kotz S. & Ravignani A. <i>Physics of Life Reviews</i> (2023), <a href="https://doi.org/10.1016/j.plrev.2023.10.023">https://doi.org/10.1016/j.plrev.2023.10.023</a> [1 citation] <b>Main Results:</b> We distinguish correlation vs causal approaches and propose inclusion of causal methodologies in testing sociality and timing. <b>Contribution:</b> Conceptualization, and Writing.	
2020	<b>Patri, J. F.</b> , Cavallo, A., Pullar, K., <b>Soriano, M.</b> , Valente, M., <b>Koul, A.</b> , ... & Becchio, C. (2020). Transient disruption of the inferior parietal lobule impairs the ability to attribute intention to action. <i>Current Biology</i> . 30(23), 4594-4605 <a href="https://doi.org/10.1016/j.cub.2020.08.104">https://doi.org/10.1016/j.cub.2020.08.104</a> [34 citations] <b>Main results:</b> We find that transient disruption of activity of the left Inferior Parietal Lobe, but not the Inferior Frontal Gyrus, impaired the observer's ability to attribute intention to action. We provide a causal evidence of how left anterior IPL computes the mapping from kinematics to intentions. <b>Contribution:</b> <u>Collection of structural MRI data of 35 participants and continuous theta-burst stimulation (TMS) in over 70 sessions.</u> <b>Open science practice:</b> Data availability: <a href="https://doi.org/10.17632/6jzbrkjpty.1">https://doi.org/10.17632/6jzbrkjpty.1</a>	

- 2020 [Quarona, D.](#), [Koul, A.\\*](#), Ansuini, C., Pascolini, L., Cavallo, A., & Becchio, C. (2020). A kind of magic: Enhanced detection of pantomimed grasps in professional magicians. *Quarterly Journal of Experimental Psychology*. 73, 1092-1100. <https://doi.org/10.1177/1747021820918533>  
\*Corresponding Author [7 citations]  
**Main results:** The results showed that compared to naïve participants, magicians had a specific advantage at discriminating pantomimed grasps. This suggests that motor expertise may be crucial for detecting relevant cues from hand movement during the discrimination of pantomimed grasps.  
**Contribution:** Performed data modeling using Drift-diffusion models, Formal Analysis, Methodology, and Writing.  
**Open science practice:** Data availability: <https://osf.io/5rdhx/>
- 2019 [Koul, A.](#), [Soriano, M.](#), Tversky, B., Becchio, C., & Cavallo, A. (2019). The kinematics that you do not expect: Integrating prior information and kinematics to understand intentions. *Cognition*, 182(May 2018), 213-219. <https://doi.org/10.1016/j.cognition.2018.10.006> [36 citations]  
**Main results:** The results provide evidence for a decision process where the influence of expectations is modulated by movement informativeness and informative movement kinematics can override initial expectations.  
**Contribution:** I independently applied mathematical modelling (drift-diffusion) on action observation data. Conceptualization, Formal Analysis, Investigation, Methodology, and Writing.  
**Open science practice:** Data availability: <https://osf.io/gh5kn/>
- 2019 [Soriano, M.](#), [Koul, A.](#), Becchio, C., & Cavallo, A. (2019). Modulation of corticospinal output during goal-directed actions: Evidence for a contingent coding hypothesis. *Neuropsychologia*, 134, 107205. <https://doi.org/10.1016/j.neuropsychologia.2019.107205> [4 citations]  
**Main results:** We find that the motor simulation does not anticipate the future course of the observed action but follows the pattern of muscle activity in the executed action. Thus, the motor system contingently maps a motor act even when outcome is fully predictable possibly suggesting a functional role of hypothesis testing.  
**Contribution:** Formal analysis of single pulse TMS data, Writing  
**Open science practice:** Data availability: <https://osf.io/k2ugy/>
- 2019 Capozzi, F., Beyan, C., Pierro, A., [Koul, A.](#), Murino, V., Livi, S., Bayliss, A., Ristic, J., and Becchio, C. (2019). Tracking the leader: Gaze behavior in group interactions. *iScience*. 16 (2019): 242. <https://doi.org/10.1016/j.isci.2019.05.035> [36 citation]  
**Main results:** The results provide first direct evidence that group visual patterns can reveal leadership across different social behaviors and validate a new promising method for monitoring natural group interactions.  
**Contribution:** I performed the statistical classification analyses (including permutation tests).  
**Open science practice:** Data availability: <https://www.iit.it/web/pattern-analysis-and-computer-vision/leadership-corpus>
- 2018 [Koul, A.](#), Cavallo, A., Cauda, F., Costa, T., Diano, M., Pontil, M., & Becchio, C. (2018). Action Observation Areas Represent Intentions From Subtle Kinematic Features. *Cerebral Cortex*, 28(7), 2647-2654. <https://doi.org/10.1093/cercor/bhy098> [50 citations]  
**Main results:** The results provide the first demonstration that putative mirror neuron regions represent subtle differences in movement kinematics to read the intention of an observed motor act.  
**Contribution:** I applied multivariate pattern analysis to neural data. Conceptualization, Data Collection of structural and functional MRI, Formal Analysis, Investigation, Methodology, and Writing.

- 2018 Koul, A., Becchio, C., & Cavallo, A. (2018). PredPsych: A toolbox for predictive machine learning based approach in experimental psychology. *Behavior Research Methods*. 50, 1657-1672. <https://doi.org/10.3758/s13428-017-0987-2> [37 citations]  
**Main results:** I developed and presented the framework of PredPsych, a user-friendly, R toolbox based on machine-learning, for researchers with limited programming experience in the fields of psychology, and clinical neuroscience.  
**Contribution:** Conceptualization, Formal Analysis, *Classification Software library (including permutation tests for classification analyses, dimensionality reduction)*, Methodology, and Writing.  
**Open science practice:** Data availability: <https://osf.io/b8y3s/>
- 2018 Koul, A., Becchio, C., & Cavallo, A. (2018). Cross-Validation Approaches for Replicability in Psychology. *Frontiers in Psychology*, 9, 1117. <https://doi.org/10.3389/fpsyg.2018.01117> [153 citations]  
**Main results:** We proposed simulated replication using *cross-validation as a way to mitigate the crisis in replication of effects* in psychological science.  
**Contribution:** Conceptualization, Investigation, and Writing.
- 2018 Zillekens, I. C., Brandi, M. L., Lahnakoski, J. M., Koul, A., Manera, V., Becchio, C., & Schilbach, L. (2018). Increased functional coupling of the left amygdala and medial prefrontal cortex during the perception of communicative point-light stimuli. *Social cognitive and affective neuroscience*, 14(1), 97-107. <https://doi.org/10.1093/scan/nsy105> [12 citations]  
**Main results:** The results indicate a neural representation of predictions drawn from communicative actions and a reduced demand for executive control at the neural level in response to communicative actions.  
**Contribution:** Formal Analysis, Methodology.
- 2017 Zunino, A., Cavazza, J., Koul, A., Cavallo, A., Becchio, C., & Murino, V. (2017). What will I do next? The intention from motion experiment. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops* (pp. 1-8). [7 citations]  
**Main results:** The results demonstrate the effectiveness of video-based approaches for the prediction of human intentions.  
**Contribution:** Conceptualization, Investigation, and Writing.
- 2017 Zunino, A., Cavazza, J., Koul, A., Cavallo, A., Becchio, C., & Murino, V. (2017, October). Predicting Human Intentions from Motion Cues Only: A 2D+ 3D Fusion Approach. In *Proceedings of the 2017 ACM on Multimedia Conference* (pp. 591-599). ACM. [18 citations]  
**Main results:** We presented a combined video + movement kinematics fusion analysis that achieves better classification accuracies than either of the two sources, attesting the superiority of the multimodal approach for the context-free prediction of human intents.  
**Contribution:** Conceptualization, Investigation, and Writing.
- 2018 Becchio, C., Koul, A., Ansuini, C., Bertone, C., & Cavallo, A. (2018). Seeing mental states: An experimental strategy for measuring the observability of other minds. *Physics of Life Reviews*, 24(12), 67-80. <https://doi.org/10.1016/j.plrev.2017.10.002> [88 citations]  
**Main results:** We proposed an empirically anchored approach to the observability of others' mentality in the stronger sense of identifying an experimental strategy for measuring the observability of mental states.  
**Contribution:** Conceptualization, and Writing.
- 2016 Cavallo, A., Koul, A., Ansuini, C., Capozzi, F., & Becchio, C. (2016). Decoding intentions from movement kinematics. *Scientific Reports*, 6(November), 37036. <http://doi.org/10.1038/srep37036> [171 citations]  
**Main results:** The findings demonstrated, for the first time, a definable and measurable relationship between the specific kinematic features of observed movements and the ability to discriminate others' intentions.  
**Contribution:** Conceptualization, Investigation, Methodology, and Writing.  
**Open science practice:** Data availability: <https://doi.org/10.1371/journal.pone.0165297.s001>



2016	<p>Koul, A., Cavallo, A., Ansuini, C., &amp; Becchio, C. (2016). Doing It Your Way: How Individual Movement Styles Affect Action Prediction. <i>Plos One</i>, 11(10), e0165297. <a href="http://doi.org/10.1371/journal.pone.0165297">http://doi.org/10.1371/journal.pone.0165297</a> [30 citations]</p> <p><b>Main results:</b> In this work, I introduced <u><b>unsupervised clustering approach to action execution</b></u>. The results provided experimental support for the significance of motor variability for action prediction, suggesting that the ability to predict what another person is likely to do next directly depends on her individual movement style.</p> <p><b>Contribution:</b> Conceptualization, Formal Analysis, <u><b>Mathematical modeling</b></u>, Investigation, Methodology, and Writing.</p> <p><b>Open science practice:</b> Data availability: <a href="https://doi.org/10.1371/journal.pone.0165297.s001">https://doi.org/10.1371/journal.pone.0165297.s001</a></p>
2015	<p>Ansuini, C., Cavallo, A., Koul, A., Jacono, M., Yang, Y., &amp; Becchio, C. (2015). Predicting Object Size from Hand Kinematics: A Temporal Perspective. <i>Plos One</i>, 10, e0120432. <a href="http://doi.org/10.1371/journal.pone.0120432">http://doi.org/10.1371/journal.pone.0120432</a> [55 citations]</p> <p><b>Main results:</b> These results reinforced our knowledge about the relationship between kinematics and object properties and shed new light on the quantity and quality of information available in the kinematics of a reach-to-grasp movement over time.</p> <p><b>Contribution:</b> Investigation, Methodology, <u><b>Classification analyses to study of action execution</b></u>, and Writing.</p> <p><b>Open science practice:</b> Data availability: <a href="https://osf.io/k2ugy/">https://osf.io/k2ugy/</a> Scripts and functions for analysis: <a href="https://osf.io/jdxg2/">https://osf.io/jdxg2/</a></p>
2014	<p>Koul, A.*, Tyagi, V.*, &amp; Singh, N. C. (2014). Notational usage modulates attention networks in binumerates. <i>Frontiers in Human Neuroscience</i>, 8(May), 326. <a href="http://doi.org/10.3389/fnhum.2014.00326">http://doi.org/10.3389/fnhum.2014.00326</a> *Equal contribution. [2 citations]</p> <p><b>Main results:</b> Our results reiterated the role of left IPS in modulating performance in numeric tasks and highlighted the role of the attention network for monitoring symbolic notation mode in binumerates.</p> <p><b>Contribution:</b> Conceptualization, Formal Analysis, Investigation, Methodology, and Writing.</p>

Data

30-05-2024

Luogo

Roma