



Ben Meuleman, "Computational modelling of appraisal theory of emotion", @MidJourney – AI & Dr. Ben Meuleman

SWISS CENTER FOR

AFFECTIVE SCIENCES

2022



**UNIVERSITÉ
DE GENÈVE**

SWISS CENTER FOR
AFFECTIVE SCIENCES

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Patricia Cernadas, "Investigating how emotions, and emotion regulation interventions change conflict-related social interactions",
@MidJourney – AI & Dr. Ben Meuleman

**SWISS CENTER FOR
AFFECTIVE SCIENCES**



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Coralie Debracque, "The voice of primates: neuro-evolutionary aspects of emotions",
@MidJourney – AI & Dr. Ben Meuleman



Tobia Spampatti, "Persuasion at two front lines of the climate war: Informational strategies to promote geothermal energy and to fight climate disinformation",
@MidJourney – AI & Dr. Ben Meuleman

1. PREFACE

The Swiss Center for Affective Sciences (CISA-UNIGE) had a remarkable year in 2022, as evidenced by its numerous scientific publications, research outputs, and events organized both for researchers and for the general public. In this report we summarize some achievements in 2022. Indeed, we were proud to have 50 doctoral students enrolled in the PhD program of the Center, with 38 supervised by UNIGE professors and 12 supervised by professors from other institutions. In addition, there were more than 20 postdoctoral researchers involved in the Education and Training program of the Center. In 2022, CISA members produced around 100 peer-reviewed articles, book chapters, and books. In the same year, CISA members obtained CHF 1'191'172 of new research funds. Several projects obtained awards, for instance a research project developing a virtual classroom for children with Attention Deficit Disorder (ADD), which was awarded the HUG Innovation Award. As a key step for the development of experimental research at CISA, we inaugurated the newly upgraded 3T MRI Scanner of our Brain Behaviour Laboratory.

In this report, we also aim at surprising you with some interesting illustrations! CISA members had their thesis titles illustrated using an artificial intelligence software run by Dr. Ben Meuleman at CISA. The images obtained were stunning! You can view them all on the Center's website at: <https://www.unige.ch/cisa/partnerships/sharing-research-public/art-and-science/my-thesis-ai-eyes/>. This project was a creative and innovative way of introducing the public to the world of CISA science.



2. HISTORY AND AIMS

The Center was created in 2005 at the University of Geneva to host the National Center of Competence in Research (NCCR) Affective Sciences funded by the Swiss National Science Foundation (SNSF).

In November 2013, the CISA moved to a new location, becoming the first unit of the University of Geneva to join the Campus Biotech.

In 2017, at the end of the NCCR Affective Sciences, the University of Geneva committed to support the continuity of the Swiss Center for Affective Sciences (CISA) and its corresponding positions.

The Center comprises research groups at the University of Geneva and associate members from other universities. They come from a wide range of disciplines, enabling a unique multidisciplinary approach to the study of emotions. Neuroscientists, philosophers, psychologists, computer scientists, economists, and scholars from literature, the arts, and the humanities work together with the common objective of understanding emotions and their roles in cognition and behavior.

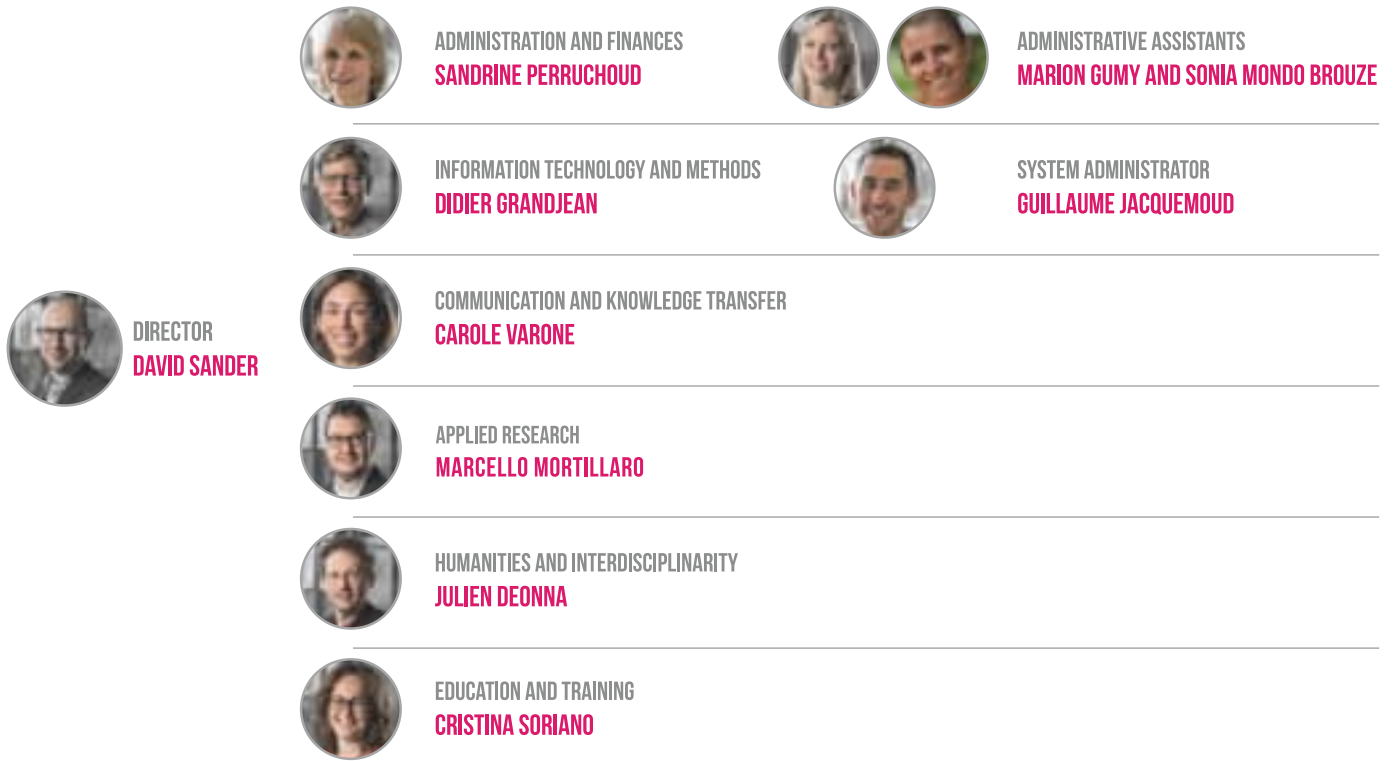
The Center develops methodologies and tools to study the neural, psychological, bodily and social underpinnings of emotion. Likewise, it carries out applied research in collaboration with public and private partners.

The Center is also a leading institution for doctoral and postdoctoral training. In addition, thanks to outreach activities such as festivals and museum exhibits, we cooperate with Swiss and international cultural institutions to better communicate to society at large our current knowledge about the most fascinating aspects of emotion.



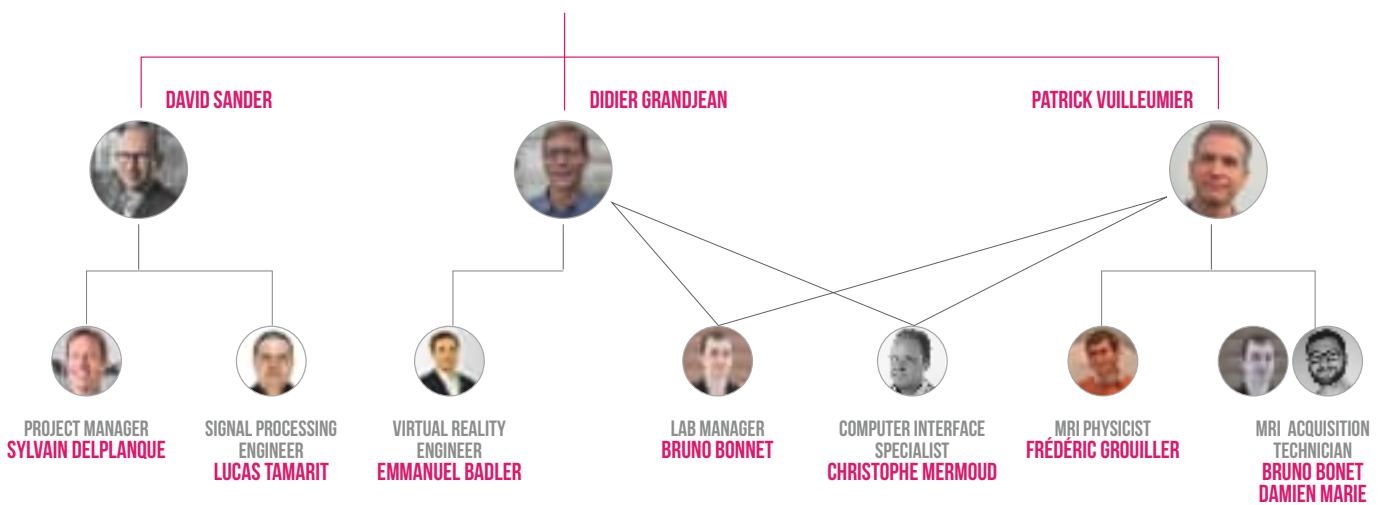
Eva Pool, "The role of affective relevance in the processing of positive rewarding stimuli",
@MidJourney – AI & Dr. Ben Meuleman

3. ORGANIZATION



CISA TECHNICAL POSITIONS FOR BBL

DIRECTORS : P. VUILLEUMIER ET D.SANDER
STERRING BOARD : D. GRANDJEAN, C. MICHEL, S. SCHWARTZ



4. COLLABORATORS

CISA members or collaborators are those with an employment contract, a fund at the Swiss Center for Affective Sciences, or the members of the Swiss Doctoral School or the postdoctoral program in the Affective Sciences, these criteria being sufficient, but not necessary.

4.1. MANAGEMENT TEAM

SANDER DAVID, Professor, CISA Director
DEONNA JULIEN A., Professor, in charge of Humanities and Interdisciplinary
GRANDJEAN DIDIER, Professor, in charge of Computer and Internet Resources
PERRUCHOUD SANDRINE, Administrator
VARONE CAROLE, Officer, Communication and Knowledge Transfer
MORTILLARO MARCELLO, Senior Scientist, Knowledge and Technology Transfer
SORIANO SALINAS CRISTINA, Senior Researcher, Education and Training
GUMY MARION, Administrative Assistant
JACQUEMOUD GUILLAUME, System Administrator

4.1. TECHNICAL STAFF

BADIER EMMANUEL, Virtual Reality Engineer
BONET BRUNO, MRI Acquisition Technician
MARIE DAMIEN, MRI Acquisition Technician and Senior Researcher
MERMOUD CHRISTOPHE, Computer Interface Specialist
MEULEMAN BEN, Assistant Statistician
TAMARIT LUCAS, Signal Processing Engineer
TYRAND RÉMI, Engineer

4.2. PROFESSORS

BÉTRANCOURT MIREILLE
BROSCH TOBIAS
CORRADI-DELL'ACQUA CORRADO
COVA FLORIAN
DEONNA JULIEN
GENTAZ EDOUARD
GRANDJEAN DIDIER
GRUBER THIBAUD
LANGKAU JULIA
MAEL LEBRETON
PERON JULIE
PREUSCHOFF KERSTIN
RIMMELE ULRIKE
SANDER DAVID
SCHWARTZ SOPHIE
TERONI FABRICE
VUILLEUMIER PATRIK



4.3. RESEARCH STAFF

BAEZ LUGO SEBASTIAN, PhD Student
BALLARE ELIZABETH FERN, Postdoctoral Researcher
BENIS DAMIEN, Postdoctoral Researcher
BUCHHEIT FLORIAN, Assistant
CAPPELLI MATHILDE, Assistant
CERAVOLO LEONARDO, Senior Researcher
CERNADAS CUROTTO Patricia, PhD Student
CHEVAL BORIS, Senior Researcher
COLL SELIM YAHIA, Postdoctoral Researcher
DEBRACQUE CORALIE, Postdoctoral Researcher
DELPLANQUE SYLVAIN, Senior Researcher
ERDEMLI ASLI, PhD Student
FILIPPA MANUELA, Senior Researcher
GAVIRIA LOPEZ GWLADYS, Senior Researcher
GROUILLER FREDERIC, MRI Physicist
GUEDJ CAROLE, Postdoctoral Researcher
GUYONNET-HENCKE TIMOTHÉ, Assistant
HAHNEL ULF, Senior Researcher
HERBEZ MARIO, PhD Student
HERRMANN MÉLANIE, Postdoctoral Researcher
JOHANSSON WERKMASTER, PhD Student
KELLER ROBERTO, PhD Student
LAGOMARSINO MARIA, Postdoctoral Researcher
LALOLI SILVIO, Research And Teaching Auxiliary
LEBRETON MAEL, Senior Researcher
MANNION KELLY, PhD Student
MAYR AUDREY, PhD Student
MELLA-BARRACO NATHALIE, Senior Researcher
MONNOR TEERAWAT, PhD Student
MURRAY LINA, PhD Student
PAGEL LAURA, Assistant
PENIC JUNGE SANDRA, Senior Researcher
POOL EVA, Senior Researcher

RAMBOSSON ISABELLE, PhD Student
REBOURG ANTOINE, PhD Student
SALEM GARCIA NAHUEL ANTONIO, PhD Student
SELOSSE GARANCE, PhD Student
SPAMPATTI TOBIA, PhD Student
STEPERNICH VIRGINIE, Senior Researcher
STUSSI YOANN, Postdoctoral Researcher
TISSERAND YVAIN, Senior Researcher
TYRAND RÉMY, ETS Research Engineer
UENAL FATIH, Postdoctoral Researcher
VARUTTI MARZIA, Senior Researcher
VOELKER JULIANE, Postdoctoral Researcher
WITTMANN ADRIEN, PhD Researcher
WUENSCH LAVINIA, PhD Student
ZAVLANOU CHRISTINA, Assistant
ZIMMERMANN MYRIAM OPHELIA, Research And Teaching Auxiliary





DOCTORAL STUDENTS IN OUR SCHOOL ARE DIVIDED INTO TWO CATEGORIES: THOSE SUPERVISED BY UNIGE PROFESSORS AT THE SWISS CENTER OF AFFECTIVE SCIENCES AND THOSE SUPERVISED BY PROFESSORS FROM OTHER INSTITUTIONS.



4.4 SWISS DOCTORAL SCHOOL IN AFFECTIVE SCIENCES

Doctoral students supervised by UNIGE professors at the Swiss Center of Affective Sciences

ABATISTA ANGELA, PhD Student,
Emotions eudémoniques et philosophie du bien-être,
supervised by Prof. Florian Cova
(University of Geneva)

BAEHNI AGNÈS, PhD Student,
Relating Morally to Oneself,
supervised by Prof. Julien Deonna
(University of Geneva) & Fabrice Teroni
(University of Geneva)

BAEZ SEBASTIAN, PhD Student,
Brain mechanisms underlying socio-emotional reactivity: a biomarker for healthy aging?,
supervised by Prof. Patrik Vuilleumier
(University of Geneva) & Prof. Olga Klimecki (University of Geneva)

BOUZIDI YANN, PhD Student,
Volition, affect and effort,
supervised by Prof. Guido H.E. Gendolla
(University of Geneva)

CAPPELLI MATHILDE, PhD Student,
On Sexual Desire,
supervised by Prof. Fabrice Teroni
(University of Geneva)

CERNADAS PATRICIA, PhD Student,
Investigating how emotions, and emotion regulation interventions change conflict-related social interactions (defended thesis in March 2022),
supervised by Prof. David Sander
(University of Geneva)

CONTE BEATRICE, PhD Student,
Cognitive, affective and behavioral dynamics of sustainable decision-making,
supervised by Prof. Tobias Brosch
(University of Geneva)

ERDEMLI ASLI, PhD Student,
The neural representation of epistemic curiosity,
supervised by Prof. David Sander
(University of Geneva)

FALK JOHANNA, PhD Student,
Affective Influences on Goal Pursuit and the Moderating Role of Deliberation,
supervised by Prof. Guido Gendolla
(University of Geneva)

FRITZ MATTIA, PhD Student,
Emotions in Computer-Supported Collaborative Learning: the influence of Emotional Awareness Tools,
supervised by Prof. Mireille Bétrancourt
(University of Geneva)

FUHRER JOFFREY, PhD Student,
Life is pretty meaningful. An experimental and theoretical approach to study meaning in life: intuitions, emotions, measures, and concept,
supervised by Prof. Florian Cova
(University of Geneva)

GIANNUZZO ANAÏS, PhD Student,
Narratives and the Creative Person,
supervised by Prof. Julia Langkau
(University of Geneva)

GIARRIZZO ALESSIO, PhD Student,
Apprentissage et compétences au travail, en formation et dans les organisations,
supervised by Prof. Nathalie Delobbe
(University of Geneva)



GRADI NAÏMA, PhD Student,
Effectiveness of a 6-week in-home gamified attentional control training versus casual video game training on typically-developing adolescents with high anxiety,
supervised by Prof. Daphne Bavelier (University of Geneva) & Prof. Swann Pichon (HEdS Geneva)

HERBERZ MARIO, PhD Student,
Motivational and cognitive determinants of sustainable consumer behavior in the mobility domain and beyond,
supervised by Prof. Tobias Brosch (University of Geneva)

HUMBERT-DROZ STEVE, PhD Student,
Modes of imagining – a taxonomy of imagination in the light of mode/content distinction,
supervised by Prof. Fabrice Teroni (University of Geneva)

KELLER ROBERTO, PhD Student,
Corrective Concepts,
supervised by Prof. Fabrice Teroni (University of Geneva) and Prof. Conor McHugh (University of Southampton)

MAZERES FLORENCE, PhD Student,
The impact of the achievement motivation on effort mobilization (defended thesis in August 2022), supervised by Prof. Guido Gendolla (University of Geneva)

MERTENS STÉPHANIE, PhD Student,
The Behavioral and Cognitive Effects of Attribute Translations on Consumer Decision Making in the Energy Domain,
supervised by Prof. Tobias Brosch (University of Geneva)

MONNOR TEERAWAT, PhD Student,
Investigation of interpersonal-affective motivation for prosocial behavior,
supervised by Prof. Giuseppe Ugazio and Kerstin Preuschoff (University of Geneva)

MURRAY LINA, PhD Student,
Impact de l'émotion sur la mémoire spatiale: investigations comportementales et neuropsychologiques,
supervised by Prof. Didier Grandjean (University of Geneva)

NONNI MARTINA, PhD Student,
Emotion components and brain networks in VR and fMRI,
supervised by Prof. Patrik Vuilleumier (University of Geneva)

OMBRATO MICHELE DAVIDE, PhD Student,
Emotion, Agency and Time (defended thesis in March 2022),
supervised by Prof. Julien Deonna (University of Geneva)

PANTELEEVA YULIA, PhD Student,
Music and emotional states: The role of episodic memories,
supervised by Prof. Didier Grandjean (University of Geneva) and Dr. Grazia Ceschi (University of Geneva)

RAMBOSSON ISABELLE, PhD Student,
How does early neural entrainment induce by rhythmic emotional vocal and motor stimulation impact anticipatory processes in preterm and full-term infants?,
supervised by Prof. Didier Grandjean and Dr. Manuela Filippa (University of Geneva)

REBOURG ANTOINE, PhD Student,
On Strength of Will,
supervised by Prof. Julien Deonna (University of Geneva)

RICHARD JEANNE, PhD Student,
Food valuation, inhibition and emotion regulation in individuals with healthy weight, overweight and obesity: How do these affective and cognitive processes interact?,
supervised by Prof. Géraldine Coppin (Swiss Distance University Institute) and Prof. David Sander (University of Geneva)

SALEM NAHUEL, PhD Student,
Computational and neural mechanisms of decision-making in humans: valence biases in choice and confidence, supervised by Dr. Maël Lebreton (University of Geneva)

SCHÖPFER CÉLINE, PhD Student, *The different philosophical and psychological conceptions of "critical thinking" (University of Geneva)*, supervised by Prof. Florian Cova (University of Geneva).

SELOSSE GARANCE, PhD Student,
Influence of peripheral information on behavioural and spatio-temporal neural mechanisms of vocal emotion production and perception, supervised by Prof. Didier Grandjean (University of Geneva)

SOOTER NINA, PhD Student,
Stress, Honesty and Decision-Making: Investigating if and how stress impacts compliance with moral codes of conduct in favor of selfish interests, supervised by Prof. Didier Grandjean (University of Geneva)

SPAMPATTI TOBIA, PhD Student,
How information processing and motivated information search shape beliefs, emotions, and decisions concerning renewable energies in Switzerland, supervised by Prof. Tobias Brosch (University of Geneva) and Dr. Ulf Hahnel (University of Geneva)

TAN MI XUE, PhD Student,
Dynamic brain networks mediating componential representations of emotions, supervised by Prof. Patrik Vuilleumier (University of Geneva)

TARDITI JOZ-ROLAND CÉLINE, PhD Student,
Mécanismes neuro-cognitifs de l'activation des valeurs, supervised by Prof. Tobias Brosch (University of Geneva)

WANG CHEN, PhD Student, *Dyadic Impression Recognition From Multimodal Bodily Responses*, supervised by Dr. Guillaume Chanel (University of Geneva)

WITTMANN ADRIEN, PhD Student,
Investigating the cerebral integration of affective prosodic and semantic information in verbal, supervised by Prof. Didier Grandjean (University of Geneva)

WUENSCH LAVINIA, PhD Student,
Individual differences in reward-seeking behaviors, supervised by Prof. David Sander (University of Geneva)

ZAHARIA ALEXANDRA, PhD Student,
Board games focused on emotional competences: promoting positive emotions and emotion regulation skills in adolescents,
supervised by Prof. Andrea Samson (University of Fribourg) and Prof. David Sander (University of Geneva)

Doctoral students supervised by professors from other institutions

BLATTER JONAS, PhD Student,
The Ethics of Emotions (defended thesis in February 2022),
supervised by Prof. Dr. Andreas Müller (University of Bern)

GAMAIUNOVA LIUDMILA, PhD Student,
Les pratiques contemplatives enracinées dans le bouddhisme et la réponse au stress : Une étude de méthode mixte (defended thesis in May 2022), supervised by Prof. Pierre-Yves Brandt (University of Lausanne) and Prof. Matthias Kliegel (University of Geneva)

GEHRINGER CAROL, PhD Student,
Argumentation and multimodal communication between children and educator in apprenticeship,
supervised by Prof. Fabrice Clément (University of Neuchâtel)

KOSTRZ MARIE, PhD Student,
The collective emotions generated by the population displacement policies enforced in Syria since 1963,
supervised by Prof. Anna Leander (IHEID)

MARI MAGALI , PhD Student,
The nature and acquisition of social schemata,
supervised by Prof. Fabrice Clément (University of Neuchâtel)

NICOLET-DIT-FÉLIX MAROUSSIA, PhD Student,
Exploration of the mechanisms mediating the relationship between emotional intelligence and subjective well-being,
supervised by Prof. Fabrice Clément (University of Neuchâtel) and Prof. Marina Fiori (HEFP)

OUELLETTE-DUBE MAUDE, PhD Student,
The importance of attention and compassion in ethics (defended thesis in June 2022),
supervised by Prof. Jean-Claude Wolf (University of Fribourg)

Petschen Adrian, PhD Student,
A study of the structural causes of human curiosity,
supervised by Prof. Fabrice Clément (University of Neuchâtel)

SCHMID DÉSIRÉE, PhD Student,
A refinement of the value approach in the environmental domain (REVALUE),
supervised by Dr. Nadja Contzen (EAWAG) and Prof. Tobias Brosch (University of Geneva)

SOMMER NILS, PhD Student,
Emotional competences and their impact on wellbeing and social interactions,
supervised by Dr. Katja Schlegel (University of Bern)

STALLMANN LINA, PhD Student,
Social Emotion Regulation in People with Autism Spectrum Disorder and the Use of Virtual Reality,
supervised by Prof. Andrea Samson (University of Fribourg)

TREICHEL NOÉMIE, PhD Student,
*The appreciation and comprehension of
humor in neurodevelopmental disorders
Williams syndrome, autism spectrum
disorder and intellectual disabilities,*
supervised by Prof. Andrea Samson
(University of Fribourg)



5. ASSOCIATE MEMBERS

Associate members are researchers from the University of Geneva or from outside the University of Geneva who are associated with the activities of the Swiss Center for Affective Sciences, without having a regular activity there.

5.1 PROFESSORS

BAVELIER DAPHNÉ
BONDOLFI GUIDO
CALDARA ROBERTO
CEVA EMANUELA
CLEMENT FABRICE
COPPIN GÉRALDINE
D'ARGEMBEAU ARNAUD
ELFERING ACHIM
ELIEZ STÉPHAN
FAVEZ NICOLAS
FEHR ERNST
FRÜHHOLZ SASCHA
GENDOLLA GUIDO
GIBSON BRANDON RAJNA
HALPERIN ERAN
HARE TODD
HUG SIMON
KAUFFMANN LAURENCE
KLIEGEL MATTHIAS
KNOCH DARIA
MALLET LUC
MASSIN OLIVIER
MEYLAN ANNE
MOLINARI GAËLLE
MOORS AGNES
NELIS DAMIEN
PICHON SWANN
POURTOIS GILLES
SAUTER DISA
PUN THIERRY
SAMSON ANDREA
SCHERER KLAUS
SCHMID MAST MARIANNE
SCHWEINBERGER STEFAN
TOBLER PHILIPPE
TRAN VÉRONIQUE

5.2 RESEARCH STAFF

AUDRIN CATHERINE, Senior researcher
BRESSOUD NICOLAS, Researcher
CHANEL GUILLAUME, Senior Researcher
CESCHI GRAZIA, Senior Researcher
FRÜHHOLZ SASCHA, Senior Researcher
GOFFIN KRIS, Post-doctoral Researcher
IGLOI KINGA, Senior Researcher
KAELIN WOLFGANG, Post-doctoral Researcher
KLIMECKI-LENZ OLGA, Senior researcher
LACK JEREMY, Lawyer and mediator
LEITO JOANA, Post-doctoral Researcher
MUSZYNSKI MICHAL, Post-doctoral Researcher
PIGUET CAMILLE, Privat Dozent
WITH STÉPHANE, Senior Researcher



Laura Riontino, "Effects of sleep deprivation on cognition and motivation", @MidJourney – AI & Dr. Ben Meuleman

6. FINANCIAL RESSOURCES

6.1 DIP BUDGET 2022

STAFF	2022
<i>Academic</i>	542 645.00
<i>Scientific and Technical</i>	1 065 978.00
<i>Administrative</i>	275 958.00
TOTAL STAFF	1 884 581.00
<i>Employer's social contributions</i>	427 018.00
TOTAL STAFF CONTRIBUTIONS INCLUDED	2 311 599.00
<i>Operating cost - Others</i>	156 855.00
<i>Operating cost - Investment</i>	29 818.81
TOTAL	2 498 272.81

6.2 GRANTS 2022

NEW EXTERNAL FUNDING OBTAINED BY THE PTOFESSORS	2022
<i>Swiss Government funded Projects</i>	1 169.172
<i>Other Projects</i>	22 000
TOTAL EXTERNAL FUNDING	1 191 172
TOTAL AMOUNT RECEIVED FOR NEW AND ONGOING PROJECTS	2022
<i>Swiss Government funded Projects</i>	1 328 174
<i>Other Projects</i>	1 276 960
TOTAL AMOUNT RECEIVED	2 605 134



Danny Dukes, «Learning from others: emotion appreciation and the informative case of interest»
@MidJourney – AI & Dr. Ben Meuleman

7. PRESENTATION OF RESEARCH GROUPS

The different scientific research groups lead by the Professor of the Center mentioned in 4.3 are described below. The Research Groups aim is to provide a better understanding of affective phenomena (e.g., emotions, motivations, moods, stress, well-being) from various research perspectives and multiple levels of analysis. With its scientists stemming from various backgrounds such as psychology, philosophy, economics, political science, psychiatry, neuroscience, education, sociology, literature, history, and religious and social anthropology, the Center places a particular emphasis on the interdisciplinary and integrative collaboration between these different domains of research.

7.1

INFORMATION TECHNOLOGY AND LEARNING PROCESSES (TECFA)

PROFESSOR MIREILLE BETRANCOURT



Research at TECFA covers a broad field of studies, such as cognitive, social and affective implications of information and communication technologies.

Research is carried out on the use of digital technologies in learning situations and their impact on cognitive and socio-cognitive processes. They are conducted from an educational perspective (impact on the processes and results of learning) and from an ergonomic perspective to optimize person-machine interactions.

During this period, three research programs have been pursued, with the aim of empirically investigating:

- Multimedia learning
- Collaborative writing and argumentative writing environments
- Ergonomics of training systems, and more broadly of information systems

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/tecfa-unige/>

7.2

CONSUMER DECISION & SUSTAINABLE BEHAVIOR LAB (CDSB)

PROFESSOR TOBIAS BROSCH



Developing a more sustainable lifestyle is one of the most pressing challenges for our planet and its inhabitants. Combining approaches from psychology, affective sciences, behavioral economics, and neuroscience, our research group aims to contribute to this challenge by trying to understand the mechanisms that drive decisions and behaviors related to sustainability.

During this period, five research programs have been pursued, with the aim of empirically investigating:

- The role of emotion in sustainable action
- The role of ideology in climate change perception
- The impact of multiple values on sustainable action
- The role of information processing in sustainability-related judgments
- The potential of nudging strategies to promote sustainable decisions

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/consumer-decision-sustainable-behavior-lab-unige/>

7.3

THEORY OF PAIN LABORATORY (TOPLAB)

PROFESSOR CORRADO CORRADI DELL'ACQUA



The main goal of this research group is to investigate, under a multidisciplinary approach, the cognitive and neural processes underlying the diagnosis of people's pain. This line of research is at the crossroads of several subdisciplines in experimental psychology and neuroscience (affective processing, embodied cognition, decision making, theory of mind, etc.) and combines different analytical techniques (behavioral, neuroimaging, machine-learning-algorithms, etc.).

During this period, five research programs have been pursued:

- The role of healthcare training in the appraisal and management of others' pain
- The role of uncertainty in the representation of one's and others' pain
- The role of cognitive fatigue in the appraisal of others' pain.

<https://www.unige.ch/fapse/toplab/>

7.4

EMPEIRIA - THE GENEVA RESEARCH GROUP IN EXPERIMENTAL PHILOSOPHY

PROFESSOR FLORIAN COVA



Empeiria is a research group dedicated to the development of empirical and experimental approaches to traditional philosophical problems. As such, most of its activities fall into the domain of experimental philosophy, a field at the intersection of philosophy and cognitive sciences. Research topics include the meaning of life, free will, philosophy of art and moral philosophy.

During this period, eight research programs have been pursued, with the aim of empirically investigating:

- The different families of positive emotions.
- The psychological underpinnings of feelings of “depth” and “profundity”
- The role of positive emotions in intuitions about the meaning of life
- Laypeople's conceptions about the meaning of life
- The role of positive emotions in philanthropic behaviour
- Folk intuitions about free will and moral responsibility
- The nature of “critical thinking” and its potential downsides
- Attitudes and irrational beliefs in the context of the COVID-19 pandemic

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/eudaimonic-emotions-and-metaphilosophy-well-being/>

7.5 THUMOS

PROFESSOR JULIEN DEONNA AND PROFESSOR FABRICE TERONI



Thumos' research activities are in the philosophy of emotions and values, with a special interest in the relations between emotions and values.

During this period, three research programs have been pursued:

- Feel Bad, Live Well ! The Value of Negative Emotions for Well-being. Examination of the role of negative emotions in well-being
- Knowledge, Action, and Factive Mental States. What is the relation between mental states and truth?
- Modes and Contents. What are the respective contributions of psychological attitudes (remembering, imagining, emoting, etc.) and content (what one remembers, imagines or emotes) to the correctness conditions of psychological states?

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/thumos-unige/>

7.6 SENSORIMOTOR AFFECTIVE AND SOCIAL DEVELOPMENT PSYCHOLOGY (SMAS)

PROFESSOR EDOUARD GENTAZ



The main objective of the Laboratory for Sensorimotor, Affective and Social Development is to better understand the development of sensorimotor, affective and social competences in typical and atypical people, from birth through to the end of adolescence. This research is centred not only on theory, but also practical outcomes, such as booklets for parents, educational methods, and working with visually impaired people.

During this period, two research programs have been pursued, with the aim of empirically investigating:

- Social-emotional development
- Early development of emotions
- Training

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/sensorimotor-affective-and-social-development-psychology-unige/>

7.7

NEUROSCIENCE OF EMOTIONS AND AFFECTIVE DYNAMICS (NEAD)

PROFESSOR DIDIER GRANDJEAN



The researchers of the NEAD group investigate psychological and brain processes related to emotional processes, especially in the auditory domain. We use functional Magnetic Resonance Imaging (fMRI), electroencephalography, and peripheral measures such as electromyography and skin conductance in our studies.

During this period, five research programs have been pursued, with the aim of empirically investigating:

- Psychological and brain mechanisms of emotional prosody perception and integration with semantic information
- Psychological, peripheral, and brain mechanisms of emotional prosody production
- Comparative approach of emotional vocalizations in human and non-human primates
- Positive impacts of maternal and paternal vocalizations on newborns
- Music and emotion
- Spatial navigation and emotion

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/nead-unige/>

7.8

ECOLOGY COGNITION COMMUNICATION EMOTION (ECCEPAN LAB)

PROFESSOR THIBAUD GRUBER



The Ecology Cognition Communication Emotion Lab (eccePAN Lab) investigates the evolutionary origins of human cultures. We study how our cognition evolved to allow us to display unrivalled cultures in the animal realm. We focus especially on social learning as well as communication processes. We conduct our work in the wild in Uganda with chimpanzees, and in human populations cross-culturally.

During this period, four research programs have been pursued, with the aim of empirically investigating:

- Interaction between cognition and ecology in wild chimpanzee tool use
- Impact of ecology and environmental change in non-human behavior
- Socio-emotional aspects of learning and communication in non-human and human primates
- Evolutionary origins of human language

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/eccepan-lab-unige/>

7.9 CREATIVITY IMAGINATION TRADITION

PROFESSOR JULIA LANGKAU



The Geneva Research Group Creativity and Imagination focuses on topics concerning creativity, the creative subject and AI creativity. Emphasis lies on distinguishing the defining conditions for creative processes from the defining conditions for creative outputs, as well as on differences between the creative process in humans and in AI.

During this period, three research programs have been pursued:

- Creativity and Imagination in Literary Writing
- Culinary Creativity and Tradition
- Narratives and the creative person

<https://www.creaphil.org>

7.10 COGNITIVE AFFECTIVE AND NEURAL ECONOMICS LAB (CANE LAB)

PROFESSOR MAEL LEBRETON



The CANE group was founded on September 1st 2022, thanks to the ERC-StG-INFORL grant. The group investigates behavioral and neuro-computational aspect of human decision-making, pertaining to various situations (simple choices and judgments, reinforcement-learning, strategic and social interactions). We are particularly interested in how individuals form values, beliefs and metacognitive judgments (e.g. confidence) and how those can be distorted by affective contexts and computational limitations. We use a wide range of technics, borrowed from affective neurosciences, behavioral economics and computational sciences.

During this period, we have empirically investigated:

- information integration during reinforcement-learning
- links between reinforcement-learning and confidence biases
- effects of monetary incentives on probabilistic judgments (beliefs, confidence judgments)
- use of decision-making science in clinical and applied contexts

<https://sites.google.com/site/maellebreton/home>

PROFESSOR JULIE PERON



The objective of the Clinical and Experimental Neuropsychology laboratory is to improve the quality of life of people living with neuropsychological syndromes. To do so, we pursue four main lines of research: i) to increase knowledge of the cerebral bases of cognition, emotion and behavior, (ii) to improve the evaluation and rehabilitation of these processes and provide innovative and useful guidelines for practitioners, (iii) to nourish and reinforce the science-society dialogue, and finally (iv) to train skilled professionals in the field.

In 2022, four major research programs have been pursued, with the aim of empirically investigating the neuropsychological implications (including affective deficits) of cerebellar stroke (project 1), post-COVID- syndrome (project 2), multiple sclerosis (project 3) and Parkinson's disease (project 4).

- **Project 1: Neuropsychology of habit.** For a decade now, we have been pursuing a new line of research on what we have called “The neuropsychology of habit”, investigating the functional specialization and integration of the basal ganglia-cerebellar network during sensorimotor, cognitive and emotional processes (Swiss National Foundation 2019 to 2023 – Grant N°: 105314_182221 to Prof. Péron). In 2022, our group published an original research article, a meta-analysis and two book chapters in this research line. Results were presented at both national and international conferences.
- **Project 2: Neuropsychological deficits in long COVID after severe, moderate or mild infection.** The COVID-COG project featured an exhaustive psychometrically and psychiatrically validated methodology, as well as MRI, olfactory and neurological assessments, administered to patients 6-9 months post COVID-19 (Swiss National Foundation NRP 78 2020 to 2022 – Grant N°: 4078Po_198438 to Prof. Péron and Prof. Assal). In 2022, our team published six scientific articles on this topic, and results were disseminated at various national conferences.
- **Project 3: Personality as a Predictor of Disability in Multiple Sclerosis.** The COGNISEP project aims at better understanding the role of personality in multiple sclerosis by highlighting the implication of precise personality traits and understanding their impact and interaction with cognitive and affective status. In 2022, we were able to disseminate the results of our ongoing investigations at national conferences.
- **Project 4: Non-motor symptoms in relation to biomarkers in early asymmetric Parkinson's disease.** The aim of the PARKLAT project is to better understand how motor symptom asymmetry, a key feature of patients suffering from Parkinson's disease, impacts the neuropsychological and physiological profiles of patients in the early stages of the disease and following subthalamic nucleus deep brain stimulation. In 2022, our group published two scientific papers on this topic, and disseminated our results to local experts and clinicians at national scientific colloquia.

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/clinical-and-experimental-neuropsychology-laboratory/>

7.12

NEUROSCIENCE IN FINANCE AND ECONOMICS (NIFE LABORATORY)

PROFESSOR KERSTIN PREUSCHOFF



Our research in Neuroeconomics and Neurofinance focuses on decision making under uncertainty. This highly interdisciplinary work covers theoretical and experimental aspects of decision making and risk taking and unites neuroscience, financial economics, computational neuroscience and psychology. We primarily employ behavioral studies, computational modeling and functional MRI to study how humans make (financial) decisions in an uncertain world.

<https://www.unige.ch/gsem/en/research/faculty/all/kerstin-preuschoff/>

7.13

EMOTION AND MEMORY LABORATORY

PROFESSOR ULRIKE RIMMELE



The Emotion and Memory Laboratory examines how emotions, stress and their regulation influence human memory across the life span.

Currently, the laboratory develops three major research programs. Using a multi-method approach (behavioral methods, physiology, pharmacology, neuro-imaging and virtual reality), these research programs investigate empirically:

- The behavioural and neural mechanisms of emotion and stress' modulation on learning and memory
- The role of emotion and stress on the construction of memories in children, adolescents, young, middle-aged and older adults
- The influence of emotion regulation strategies on making and changing memories.

In addition to the research aims above we examine how emotional memories may be altered using different interventions.

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/emotion-and-memory-lab/>

7.14

LABORATORY FOR THE STUDY OF EMOTION ELICITATION AND EXPRESSION (E3 LAB)

PROFESSOR DAVID SANDER



Research in the Laboratory for the study of Emotion Elicitation and Expression investigates the cognitive mechanisms involved in the appraisal of relevant stimuli, and how these processes elicit emotions, and modulate perception, attention, learning, memory, and decision-making. Currently, five major research programs are developed. These research programs aim at empirically investigating:

- The nature and function of relevance detection in emotion elicitation
- Affectivism
- Mechanisms underlying emotional learning and memory
- Emotional processing of olfactory stimuli
- Bidirectional links between emotions and food intake

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/e3-lab-unige/>

7.15

SLEEP AND COGNITION LABORATORY

PROFESSOR SOPHIE SCHWARTZ



The Sleep and Cognition Lab investigates how experience shapes our minds. Specifically, using behavioral and brain measures, we study how emotions and recent memories are integrated into complex representations, during wakefulness as well as during sleep and dreaming.

During this period, we have been working on the following research programs:

- Processing of emotions during sleep and dreams, and relationship with daytime emotional responses and mental health
- Effects of cognitive load and sleep deprivation on pain processing
- Neural coding of memories in space and time
- Impact of screen use and morning school hours on sleep, cognition, and emotion in adolescents
- Effects of physical exercise on memory and neural plasticity
- Processing of odor valence during sleep and influence of odors on sleep.

<https://www.unige.ch/medecine/neuf/en/research/grecherche/sophie-schwartz/>



We investigate the functional mechanisms and brain circuits implicated in the generation and regulation of emotions, in healthy people as well as in neurological or psychiatric diseases. Using neuroimaging methods (MRI and EEG), we seek to understand the role of different brain regions (e.g. amygdala), how they dynamically influence each other, and how they influence cognition, behavior, and mood. During this period, we pursued the following research programs:

- Identify the cerebral organization of emotional components and their functional interactions during emotional episodes
- Determine the temporal dynamics of amygdala activity with intracranial EEG
- Characterize long-lasting changes in brain activity patterns after transient emotions and their link to emotion regulation abilities
- Develop naturalistic emotion elicitation paradigms with first-person games and virtual reality scenarios
- Study neural mechanisms of visual attention including modulation by affective factors and reward and disorders after brain damage
- Develop and investigate neurofeedback protocols with real-time fMRI and EEG to self-regulate brain activity
- Reveal the effect of emotion on memory for events, their context, and relationships
- Identify changes in specific brain network and their dynamics during changes of mood states in patients with depression and bipolar disorder

<https://www.unige.ch/cisa/research/research-groups/cisa-groups/laboratory-behavioral-neurology-and-imaging-cognition/>

8. EDUCATION AND TRAINING (E&T) PROGRAM

Head: DR. CRISTINA SORIANO
Administrative coordination: MS. MARION GUMY
Doctoral student representative: MS. ALEXANDRA ZAHARIA
Postdoc representative: DR. BEN MEULEMAN

The **E&T program** at CISis is in charge of organizing education and training events for the researchers of the Center and for the general public. It is also responsible for the Swiss Doctoral School in Affective Sciences and the CISA Postdoctoral Program, currently enrolling 50 doctoral and 21 postdoctoral researchers.

The **Swiss Doctoral School in Affective Sciences** provides complementary interdisciplinary training in the affective sciences to doctoral researchers from various Swiss universities (a majority of them UNIGE) and to foreign associate members. In addition to training, it offers them a faculty and a peer mentoring program, financial support to attend scientific events, personalized career support, professional networking opportunities, and a rich flow of information concerning conferences, grants, job offers and other relevant events for the affective community. The doctoral program was founded in 2005. It was originally funded by the NCCR Affective Sciences until 2013 and then by Swiss universities until the end of 2021. Currently, it is sponsored by the Rectorate of the University of Geneva.

The E&T program implements top-down as well as bottom-up approaches for activity design, and a quality control program. The team counts with a representative from the doctoral and the post-doctoral community. The doctoral program is also supported by an interdisciplinary scientific advisory board including faculty from 5 Swiss universities (Geneva, Lausanne, Neuchâtel, Bern, Zurich).

The E&T program organizes a number of **regular events** including an interdisciplinary lecture series in the affective sciences, thematic workshops, transversal skill workshops, graduate seminars (practical introductory workshops to topics of interdisciplinary interest in the affective sciences), and a biennial international summer school. The events organized in 2022 are summarized below (more information at: <https://www.unige.ch/cisa/education/education/>).



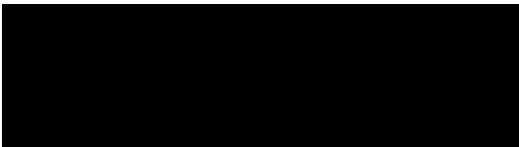
Alexandra Zaharia, “Play with your emotions! Board games to improve emotional competencies in adolescents”,
@MidJourney – AI & Dr. Ben Meuleman – AI & Dr. Ben Meuleman



Yvain Tisserand, “Fast prototyping and deformation of virtual humans”,
@MidJourney – AI & Dr. Ben Meuleman



Beatrice Conte, “Cognitive and affective dynamics of the environmental self”,
@MidJourney – AI & Dr. Ben Meuleman



Agnes Baehni, "Relating morally to oneself",
@MidJourney – AI & Dr. Ben Meuleman



Céline Schopfer, "Thinking critically about
critical thinking",
@MidJourney – AI & Dr. Ben Meuleman



Frédéric Grouiller, "Functional mapping
of epileptic brain during presurgical evaluations",
@MidJourney – AI & Dr. Ben Meuleman

8.1 LECTURE AND SEMINARS

1. **MARZIA VARUTTI.** 18.01.2022. CISA, Online lecture.
"Emotions and Curatorial Practice"
2. **MARA MATHER.** 22.02.2022. CISA, Online lecture.
"Do heart rate oscillations enhance function of emotion networks in the brain?"
3. **PHILIPPE GOLDIN.** 15.03.22. CISA, Online lecture.
"fMRI of cognitive reappraisal, acceptance, and suppression emotion regulation strategies in basic and clinically applied contexts"
4. **ERIC CULLHED.** 22.03.22. CISA, Campus Biotech.
"Odysseus' Urge to Cry and the Psychology of Weeping"
5. **BIRGITT RÖTTGER-RÖSSLER.** 22.06.22. CISA, Campus Biotech.
"Researching the role of emotions and affects in the highly mobile, interconnected and mediatized worlds of the twenty-first century"
6. **DENIS SCHUTTER.** 04.10.22. CISA, Online lecture.
"Tree of life: The cerebellum in anger and aggression"
7. **COLIN LEACH.** 11.10.22. CISA, Campus Biotech.
"Psychological hedonism in emotion thinking, in shame, schadenfreude, anger, ..."
8. **CAT HOBAITER.** 08.11.22. CISA, Campus Biotech.
"Exploring emotion in the expression of ape gesture"
9. **ANNELIES REIS.** 13.12.22. CISA, Campus Biotech.
"Measuring and improving student engagement during Hybrid Learning Environments"

8.2 WORKSHOPS

1. **NON-PARAMETRIC DATA ANALYSIS.** With Ben Meuleman (University of Geneva). 17.01.2022. CISA, Campus Biotech.
2. **MULTILEVEL REGRESSION.** With Ben Meuleman (University of Geneva). 01-04.03.2022. CISA, Campus Biotech.
3. **LOGISTIC REGRESSION.** With Ben Meuleman (University of Geneva). 17.11.2022. CISA, Campus Biotech.

8.3 GRADUATE SEMINARS

1. **RONALD DE SOUSA.** 18.05.2022. CISA, Campus Biotech. *“Why emotion research needs philosophy”*.
2. **MARCELLO MORTILLARO.** 21.06.2022. CISA, Campus Biotech. *“Emotional competence”*.
3. **DAVID SANDER.** 18.10.2022. CISA, Campus Biotech. *“Introduction to emotion psychology”*.
4. **PATRIK VUILLEUMIER.** 29.11.2022. CISA, Campus Biotech. *“Introduction to affective neuroscience”*.

8.4 SUMMER SCHOOL

On July 7-15, 2022 CISA organized its biennial International Summer School in the Affective Sciences (ISSAS) at Chateau de Bossey, Switzerland, around the topic **“Emotions & Well-being”**. 21 faculty members and 31 students from 12 countries spanning 9 disciplines discussed topics such as the definition of well-being, the relationships between happiness, values and meaning, mental health, positive emotions, meditation, affective learning, pro-sociality, or political trauma, among others, spanning a total of 13 lectures, 8 workshops and 5 student projects. An interdisciplinary team with researchers from psychology, education, philosophy, neurobiology and organizational behavior won the award for best student project for the work entitled *“Seeing through other’s eyes: emotional profiles and the relationship between perspective-taking and wellbeing”*. The winners were Alix Bigot (Université Catholique de Louvain), Giona Di Poi (Unidistance Suisse), Muhammad Amran (University Kebangsaan Malaysia), Guillaume Soucy (Université du Québec à Montréal), Dominika Zaremba (Polish Academy of Sciences), and Florence Bernays (University of Zurich).

8.5 OTHER

1. **Doctoral Students Day.** 27.09.2022. CISA, Campus Biotech. Annual meeting of the doctoral program members. Discussion of program features, feedback, networking, and planning

8.6 CO-FUNDED EVENTS

1. **2nd CISA welcome day.** 27.09.2022. CISA, Campus Biotech. Welcome session for newcomers to the Center, with doctoral researchers giving short presentations.
2. **Annual Research Forum.** 24 & 25.11.2022. CISA, Campus Biotech. Annual scientific and networking event for the CISA community. The 2022 prize for best doctoral poster was awarded to Ms. Nina Sooter for the work *“Virtual reality for philanthropy: a promising tool to innovate fundraising”*.
3. **Emotions Brain Forum.** 25.11.2022. CISA, Campus Biotech. Outreach symposium on emotion from a psychological, philosophical and neuroscientific perspective, including 6 prestigious female speakers and artistic performances. Attended by over 100 people on-site and broadcasted live. Co-organized with Brain Circle Italia. <https://www.emotionsbrainforum.org/>
4. **Thumos seminars.** Philosophy lectures in the affective sciences. Thursdays, 16h15-17h45. Uni Bastions.

9. KNOWLEDGE TRANSFER ACTIVITIES

Heads: DR. MARCELO MORTILLARO
MS. CAROLE VARONE

Knowledge transfer activities are coordinated by Dr. Marcello Mortillaro and Ms. Carole Varone. Dr. Mortillaro, senior researcher, is in charge of facilitating scientific collaborations between the CISA and companies, research centers, as well as public and private partners. Ms. Carole Varone is in charge of developing knowledge transfer activities for the public at large in collaboration with partners in the public and private sectors.

9.1 COLLABORATION WITH PRIVATE/PUBLIC INSTITUTIONS

9.2. THROUGHOUT 2022, THE CISA PARTICIPATED IN SEVERAL APPLIED RESEARCH COLLABORATIONS WITH EXTERNAL PARTNERS FROM THE EDUCATIONAL, INDUSTRY, AND NON-PROFIT SECTORS.

One of the main applied areas for the research conducted at CISA concerns the training and the assessment of emotional competencies. Concerning the training, in the context of the FNS project EMOTI'SENS researchers from CISA designed a program based on multiple sensory modalities to help develop emotional competencies in children with visual deficits. Pilot studies were designed, and studies planned for 2023 and 2024. Concerning the assessment of emotional competencies, the collaboration with the Ecole Hotelière de Lausanne, started at the end of 2021, continued with the creation of the first version of a new assessment instrument to measure emotional intelligence in the context of hospitality services. This area of application is going to continue in 2023 and hopefully further, as the interest in professionals and practitioners is very high as demonstrated by the success of the project whenever discussed and presented at public non-academic events.

Researchers from Peron's lab at CISA worked extensively to communicate and transfer the knowledge acquired in the framework of the COVID-COG research to both clinicians and patients. Members of the team took part in the task force of the FMH (*Foederatio Medicorum Helveticorum*), a scientific consortium aiming to provide expert recommendations regarding the post-COVID syndrome destined for internal medicine physicians (2022). Importantly, the team had important exchanges with patients' associations (the "Long-COVID Switzerland" patient association, and the *Société Suisse-SEP* patient association) in order to address the importance of neuropsychology in patient care, and to provide one-on-one neuro psychoeducation interventions with patients suffering from post-COVID symptoms.

The long-standing collaboration with Firmenich continued successfully, receiving large attention from the scientific community. Importantly, in addition to new publications, in 2022 a new patent was filed with two members of the CISA among the inventors: Methods for determining the relaxing or stimulating properties of a fragrance or aroma [WO2023118311](#)

Technology innovation is also at the center of many other projects. The VR Relief project, funded by the Fondation privée des Hôpitaux Universitaires de Genève (HUG), aims to use virtual reality to reduce pain and anxiety in children during painful medical procedures. It is a collaboration between CISA and the HUG Pediatric Department. During 2022, several new scenarios were developed, and the first prototype was translated into German, Italian and Lebanese Arabic. It was shared with various departments at the HUG, notably as part of the SEROCOVID-KIDS campaign (over 1000 participants), as well as with other medical institutions such as the InselSpital in Berne, the CHUV and Vidy-med in Lausanne, the Payerne hospital and the pediatric oncology department at the Lebanese American University Medical Center in Beirut, Lebanon.

The VR Police Project, done in collaboration with the Geneva Cantonal Police, aims to assess and develop the psychosocial skills of police officers. In 2022 a new prototype was developed to be used in an experiment in spring 2023. The project was presented at an intercantonal meeting on the use of virtual reality in police training and at the CCIR 2022 police trainers' day.

Finally, two applied projects focused on innovation developed by the Brain and Behavior laboratory team received awards: **PADAWAN** - a virtual classroom to help children with attention deficit to regulate their attention - won the Innovation Prize 2022 of the HUG during the 16th Journée de l'Innovation, while the application **MRI Adventure**, which helps kids take an MRI without moving, received the best poster award in the same event. Département de l'instruction publique, de la culture et du sport of the State of Geneva, investigates the potential efficacy of different activities for socio-emotional learning in adolescents. Analyses are currently ongoing, and results will be communicated in 2022.



MRI Adventure project



PADAWAN project

9.3 PARTICIPATION AND ORGANIZATION IN OUTREACH ACTIVITIES

The workshop “ Comprendre les émotions, les reconnaître à travers différents sens et apprendre à les gérer “, created in partnership with our center, was presented to various classes of the Département de l’instruction publique, de la formation et de la jeunesse (DIP) from January to April 2022. Through games, participants learned to better understand and control emotions. The workshop was managed and run by the **UNIGE Bioscope team**.

Prof. Ulrike Rimmele and her team run **various workshops in schools on Stress, Memory and Emotion Regulation**: on February 10 and on March 30 at the Ecole de Puplinges, on March 24-25 and April 1 at the Ecole de Vandoeuvres, on April 5, 8 and 28, at the Ecole de Pinchat, on November 14 at L’Ecole du Rosey, and on November 18 and 25 at the Ecole de Micheli-du-Crest.

Following her 2020 residency at the Swiss Center for Affective Sciences and NCCR Evolving Language, the Swiss artist Julie Semoroz presented her creation “**TWELVE THOUSAND TWENTY**” in the events and cultural institutions listed below. The project involves an art installation, workshops and performances about the internal perception of sound, and one’s capacity to feel internal physiological activity as indicator of emotions, of the body state.

- **DOUZE MILLE VINGT, Exhibition– Xyloscille, installation sonore et visuelle**, EPFL Pavillons, Lausanne, 8-13 March 2022.
- **DOUZE MILLE VINGT, Interspecies communication**, EPFL Pavillons, Lausanne, 4 performances, 8-9 March 2022
- **DOUZE MILLE VINGT, Foralgues, concert acoustique et vibratoire**, EPFL Pavillons, Lausanne, 10 March 2022
- **DOUZE MILLE VINGT Table ronde : interception et vocalisation animale**, EPFL Pavillons, Lausanne, 10 March 2022
- **DOUZE MILLE VINGT, Exhibition and workshop**, Musée de la main, Lausanne, Nuit des Musées, September 24, 2022
- **DOUZE MILLE VINGT, Exhibition « Résonances »**, Ecole internationale de Genève, October 6 to November 10, 2022
- **DOUZE MILLE VINGT, Exhibition and workshop**, Experimenta, Grenoble, France, October 19, 2022

Three CISA members took part in **Brain Week event**.

Prof. Ulrike Rimmele gave a lecture in Geneva on March 11, 2022 on stress and how it affects our memory and our physical and mental state. Prof Didier Grandjean took part in the round table on human identity that followed Ridley Scott’s film “Blade Runner” in Geneva on March 18, 2022. On the same day, Dr Sylvain Delplanque gave a lecture on “Emotions : c’est dans ma tête” at the Brain Week in Lyon, France.



The **BBL-CIBM-FCBG** Research Day 2022 was held on June 1st, 2022 at the Centre Médical Universitaire (CMU), University of Geneva. During this day, physicists, physicians, and neuroscientists reviewed the status of ongoing MRI projects and activities and shared their experiences. At the end of the day, the newly upgraded 3T MRI scanner located at the BBL at the University of Geneva was publicly inaugurated.



On June 21, 2022, Prof. Didier Grandjean took part in a **round table entitled “Quand la musique joue sur le cerveau”** organized by the University of Geneva and the Conservatoire populaire de musique, danse et théâtre, on the cognitive, social and emotional skills that musicians have developed through their musical training.

Prof. David Sander and Dr. Marcello Mortillaro gave the lecture “Faut-il avoir peur des émotions au travail?” on June 29, 2022 at the Casino Montbenon in Lausanne, at the invitation of the **MAS DHO** (Master of Advanced Studies en Développement Humain dans les Organisations) (Hes.so).

The **Nuit de la Science** was held on July 9-10, 2022, after a 4-year hiatus, on the theme: Et pourtant... which refers to the phrase attributed to Galileo “E pur si muove!” to address all that seems counter-intuitive in science. The Swiss Center for Affective Sciences (CISA) and the National Center of Competence in research (NCCR) Evolving Language shared a booth offering a range of fun activities related to language and emotions. Twelve CISA researchers took part in the event.



Prof Didier Grandjean took part with Dr. Alain Dufaux (EPFL) and Prof Christophe Fellay (EDHEA, Valais) in a workshop entitled “Archives, a material for emotions?” at **Montreux Jazz Festival** on July 10, 2022. The public was immersed in a sound environment offering high resolution acoustic quality and participated in a project that evaluated their emotions and feelings live when listening to the Montreux Jazz concert recordings.

Dr Cristina Soriano, Dr Marzia Varutti and Prof Tobias Brosch took part in a roundtable discussion on the role of emotions in the ecological crisis at UNIGE on Saturday, September 3, 2022, as part of the **Alternatiba Festival** in partnership with Geneva’s Museum of Natural History.



Dr Donald Glowinski took part in a public debate organized by **Minds** (Promotion de la Santé Mentale, Genève) on the place of emotions at the workplace. The event “Pas que des robots. What place for our emotions at work?” was held on October 12, 2022 at l’Espace, Geneva.

The **International Museum of the Red Cross and Red Crescent (MICR)** in Geneva launched a thematic cycle devoted to mental health for 2022 and 2023. As part of this cycle, six Swiss Center for Affective Sciences researchers gave their views on the permanent exhibition and led workshops in dialogue with humanitarians and the public. The first event took place on November 6, 2022. It was a compassion training session, led by Dr. Olga Klimecki and Dr. Patricia Cernadas Curotto. They presented the effects of meditation and encouraged the audience to cultivate feelings of compassion with a meditation guided by Olga Klimecki.

Furthermore, the International Red Cross and Red Crescent Museum, in collaboration with the Geneva Centre for Humanitarian Studies and the Swiss Center for Affective Sciences (CISA) of the University of Geneva, organized throughout the year a series of five thematic conversations on “How to represent Mental Health”. They brought together specialized discussants from different fields of expertise. Dr Marzia Varutti, representing the Swiss Center of Affective Sciences, was involved in the organization of this conference cycle.

On November 25, 2022, the Swiss Center for Affective Sciences in collaboration with BrainCircleItalia, organized the **Emotions Brain Forum** on the theme “Emotions, cognition and behavior”. Six internationally renowned women scientists, including three Swiss Center for Affective Sciences researchers, discussed the influence of emotion on our behavior, covering several important topics: The role of emotions in politics and how empathy and curiosity can strengthen social bonds, the impact of smells on our emotions, the emotional consequences of traumatic experiences, and the importance of being emotionally flexible. More than 100 people attended the event.

Dr Cristina Soriano took part in an interview conducted by Chahut, a studio for audiovisual creations, for the **Geneva Museum of Natural History**, on words related to climate emergency, global warming and the environmental crisis. This recording is part of a podcast “Série #2 GRANDS ENTRETIENS” available on the Chahut website. It has also been broadcasted via the Museum’s various communication networks.



10. SHARED RESEARCH MATERIAL

The CISA makes research materials available on its research website page <https://www.unige.ch/cisa/research/materials-and-online-research/research-material/> These materials are free of charge for use in non-commercial research projects. New materials are constantly added.



Anaïs Giannuzzo, «Narratives and the creative person»,
@MidJourney - AI & Dr. Ben Meuleman



Garance Selosse, "Influence of bodily resonances on behavioural and spatio-temporal neural mechanisms of vocal emotion perception",
@MidJourney – AI & Dr. Ben Meuleman



Joeffrey Fuhrer, "A quest for a meaningful life. An experimental and theoretical investigation of the concepts of meaning in life and meaningful life, their operationalizations, and new perspectives for studying them",
@MidJourney – AI & Dr. Ben Meuleman

11. AWARDS AND GRANTS

Brain Behaviour Laboratory (BBL, University of Geneva) (October 20, 2022). The two following BBL projects were awarded prizes at the HUG Innovation Day, in recognition of the work carried out by several members of the Swiss Center for Affective Sciences:

- PADAWAN project, HUG 2022 Innovation Award. PADAWAN offers a virtual classroom for children with attention deficit disorders to improve their attention. Authors : Carole Guedj (Laboratory for Behavioral Neurology and Imaging of Cognition, Department of Fundamental Neurosciences and Swiss Center for Affective Sciences, UNIGE), Rémi Tyrand (Swiss Center for Affective Sciences, UNIGE), Emmanuel Badier (Swiss Center for Affective Sciences, UNIGE), Russia Hà-Vinh Leuchter (Division of Development and Growth, Department of Paediatrics, Gynaecology and Obstetrics, HUG), and Frédéric Grouiller (Swiss Center for Affective Sciences and CIBM - Cognitive and Affective Neuroimaging Section, UNIGE).
- MRI Adventure application. Best Poster Award at HUG Innovation Day. The application MRI Adventure enables children to prepare in advance to be able to undergo an MRI examination without moving. Authors : Emmanuel Badier (Swiss Center for Affective Sciences, UNIGE), Laurent Moccozet (CUI, UNIGE), Amine Hadjiat (Faculty of Sciences, Computer Sciences Department, UNIGE), Bruno Bonet (Swiss Center for Affective Sciences, UNIGE), Christophe Mermoud (Swiss Center for Affective Sciences, UNIGE), Sylvain Delplanque (Swiss Center for Affective Sciences, UNIGE), Céline Gaignot (Medical Radiology, HEdS - Haute Ecole de Santé, Genève), and Frédéric Grouiller (Swiss Center for Affective Sciences, UNIGE).

JOFFREY FUHRER obtained a six-month SNSF grant to lead a project in Helsinki with Frank Martela for the project entitled "What is important about the meaning of life?".

DIDIER GRANDJEAN was granted a four-year (2022-2026) SNSF project entitled "How early neural entrainment induced by rhythmic emotional vocal and motor stimulation impacts on anticipatory processes and interpersonal synchrony in prematurely and term born infants".

ULRIKE RIMMELE was granted an SNSF COST Action as Co-Investigator with Prof. Antje Horsch (CHUV) for the project entitled "Associating basic and clinical science to reduce

childbirth-related traumatic flashbacks and post-traumatic stress”. She also obtained a one-year grant from the Olga Mayenfisch Foundation for the project entitled “Influence of the stress hormone cortisol on reconsolidation of emotional memories”.

MONIKA RIEGEL was granted a Marie Curie Global Fellowship for the project entitled “Neuromodulation of episodic memory - how stress and emotion influence Time In Memory”.

PHILIPPE VORUZ was awarded the Vasco Sanz fund prize for his paper on COVID-19 entitled “Functional connectivity underlying cognitive and psychiatric symptoms in post-COVID syndrome: Is anosognosia a key determinant?”.

12. COMPLETED PHD THESES

SEBASTIAN BAEZ successfully defended his PhD thesis “*Brain mechanisms underlying socio-emotional reactivity and recovery in older adults*” on June 07th, 2022 under the supervision of Prof.

PATRIK VUILLEUMIER (University of Geneva). Jonas Blatter successfully defended his PhD thesis “*Unfair Emotions – On their morality and blameworthiness*” on February 22nd, 2022 under the supervision of Prof. Andreas Müller (University of Bern).

PATRICIA CERNADAS successfully defended her PhD thesis “*Investigating how emotions, and emotion regulation interventions change conflict-related social interactions*” on March 18th, 2022 under the supervision of Prof. David Sander (University of Geneva), Prof. Eran Halperin (School of Psychology at the Interdisciplinary Center of Herzliya) and Dr. Olga Maria Klimecki-Lenz (University of Geneva).

LIUDMILA GAMAIUNOVA successfully defended her PhD thesis “*Contemplative practices rooted in Buddhism and stress: Psychophysiological perspective*” on May 06th, 2022 under the supervision of Prof. Pierre-Yves Brandt (University of Geneva) and Prof. Matthias Kliegel (University of Geneva).

MARIO HERBERTZ successfully defended his PhD thesis “*Behavioral sustainable mobility: Insights into the cognitive and motivational drivers of individuals’ preferences*” on September 30th, 2022 under the supervision of Prof. Thomas Brosch (University of Geneva) and Prof. Ulf Hahnel (University of Basel).

FLORENCE MAZERES successfully defended her PhD thesis “*Atteindre l’excellence sans gaspiller des ressources : Une interaction complexe entre le motif d’accomplissement et la difficulté de la tâche*” on August 31st, 2022 under the supervision of Prof. Guido H.E. Gendolla (University of Geneva) and Dr. Kerstin Brinkmann (University of Geneva).

MICHELE OMBRATO successfully defended his PhD thesis “*Emotion, Agency and Time*” on March 25th, 2022 under the supervision of Prof. Julien A. Deonna (University of Geneva).

MAUDE OUELLETTE-DUBÉ successfully defended her PhD thesis “*Ordinary Ethical Navigation: An Account of Moral Understanding.*” on June 07th, 2022 under the supervision of Prof. Jean-Claude Wolf (University of Fribourg)

13. COURSES TAUGHT (BACHELOR AND/OR MASTER)

Most courses that are cited below have a content at the core of the field of affective sciences. In addition, for some other courses, given the importance of emotion and other affective phenomena in cognition and behavior, these phenomena are addressed in the respective courses without being the main topic of the course.

13.1 PROF. DAVID SANDER

Psychologie de l'émotion
Approches cognitives de l'émotion
Emotions et apprentissages

13.2 PROF. TOBIAS BROSCH

Affect et prise de décision
Méthodologie de l'intervention TP1 : Psychologie du développement durable
Psychologie du développement durable : leviers de changement de comportement

13.3 PROF. FLORIAN COVA

Déterminisme et responsabilité morale
TP en relation avec le cours : "Introduction à l'éthique appliquée"
TP en relation avec le cours : "Le sens de la vie"

13.4 PROF. JULIEN DEONNA

Emotion et morale : la valeur des émotions
Philosophie Pratique : Les sources du jugement moral

13.5 PROF. EDOUARD GENTAZ

Introduction au développement social et affectif
Développement précoce des émotions
Développement affectif et social de la naissance à l'adolescence

13.6 PROF. DIDIER GRANDJEAN

Expression et communication de l'émotion (master level)
Introduction à la neuropsychologie et neurosciences affectives (bachelor level)
Neuropsychologie des émotions et neurosciences affectives (master level)
Neurosciences affectives (TP) (master level)

13.7 PROF. THIBAUD GRUBER

Emotions animales

13.8 PROF. JULIE PERON

Neuropsychologie (bachelor)
Habitudes et systèmes de mémoire (master)
Colloque de recherche en psychologie clinique intégrative (master)
Evaluation et rééducation en neuropsychologie de l'adulte (master)

13.9. PROF. KERSTIN PREUSCHOFFI

Psychology of finance
Introduction to neurofinance

13.10. PROF. ULRIKE RIMMELE

How emotion affects memory over the lifespan

13.11. PROF. FABRICE TERONI

Introduction à la philosophie moderne : Descartes
Emotions et art (MA)
Introduction à la philosophie de l'esprit
Philosophie Pratique : Les sources du jugement moral

13.12. PROF. SOPHIE SCHWARTZ

Bases neuroanatomiques et physiologiques du comportement

13.13. PROF. PATRIK VUILLEUMIER

Introduction to cognitive and affective neuroscience
Neurons from bench to patient: neuroimaging research on emotion

14. CONTINUING EDUCATION

A continuing education session in Emotional Competencies in Professional Situations was proposed in 2021. It aims to understand the central role of emotions and emotional competencies in professional worlds around two areas of interest: “Emotion, work and management” and “Emotion, childhood and learning”.

<https://www.unige.ch/formcont/promotions/competences-emotionnelles>



Juliane Voelker, “Jamming inside the emotional box. From investigating ability emotional intelligence to measuring emotional music experience”,
@MidJourney – AI & Dr. Ben Meuleman



Maria Lagomarsina, “Unveiling the role of hope in guiding behavior”,
@MidJourney – AI & Dr. Ben Meuleman



Maroussia Nicolet-dit-Felix,
“Exploring the mechanisms mediating the relationship between emotional intelligence and subjective well-being”,
@MidJourney – AI & Dr. Ben Meuleman

15. LIST OF PUBLICATIONS 2022



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Borghini, A. and Engisch, P. (2022). A Philosophy for Recipes. Questions and Methods. In A. Borghini & P. Engisch (Eds), *Making, Experiencing, and Valuing. A Philosophy of Recipes*. London: Bloomsbury.

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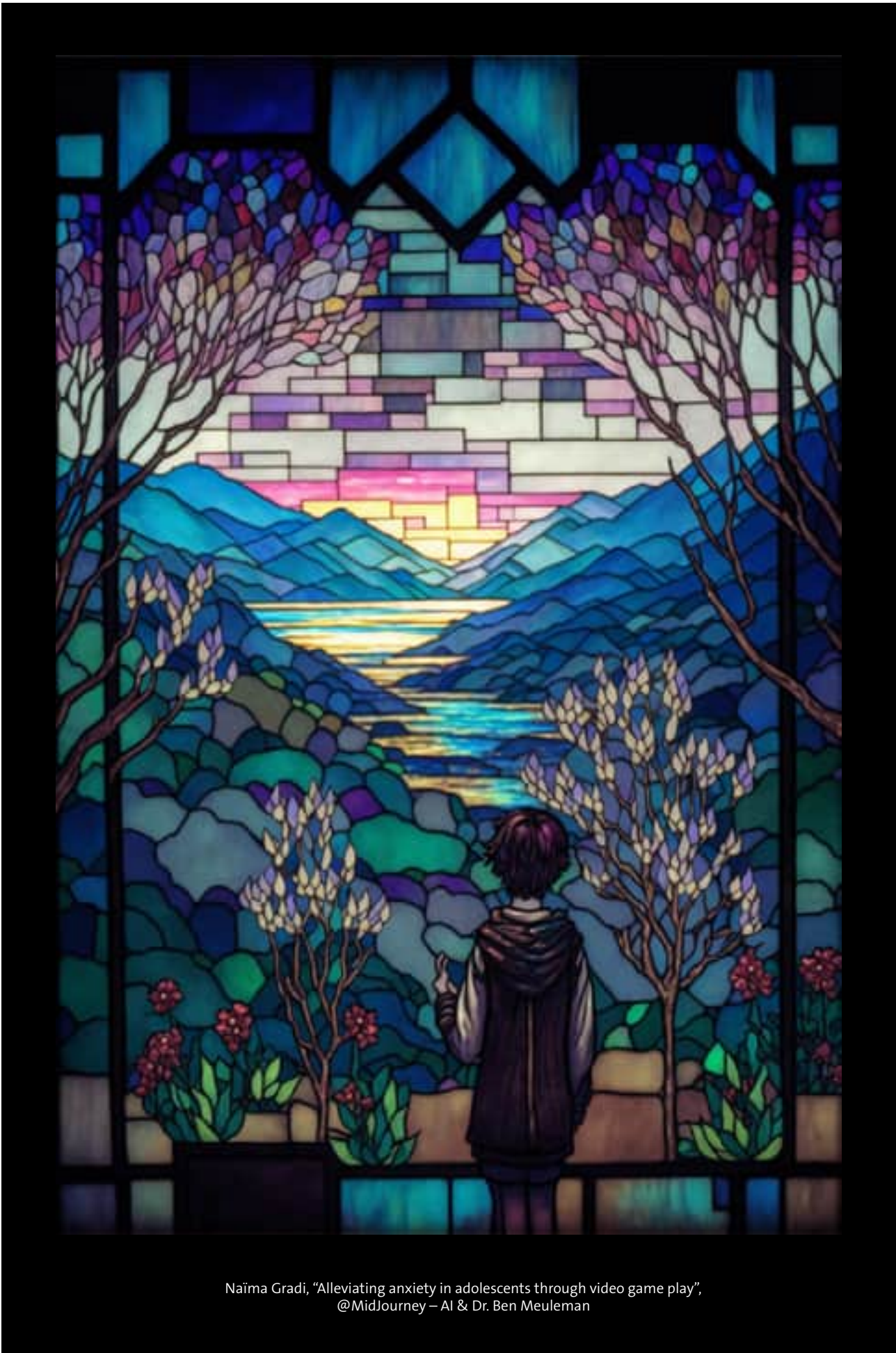
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