

Program ASSC 25 Amsterdam

	Tuesday July 12th	Wednesday July 13th	Thursday July 14th	Friday July 15th
9:00	Tutorials session 1	Concurrent talks 1 - 4	Parallel symposia 1 & 2	Parallel symposia 3 & 4
9:30				
10:00				
10:30				
11:00				
11:00	Coffee	Coffee	Coffee	
11:30	Keynote prof. Bayne	Keynote prof. Roelfsema	Keynote prof. Tracey	
12:00				
12:30		On site lunch		
13:00	Tutorials session 2	Poster session 1 – 'de Brug'	Poster session 2 – 'de Brug'	Poster session 3 – 'de Brug'
13:30				
14:00				
14:30				
15:00				
15:30	Consciousness debate part 1	Concurrent talks 5-8	Concurrent talks 9-12	
16:00	16:15 Opening			
16:30	Presidential address prof. Pacherie	Snacks		
17:00	Keynote prof. Sergent	Consciousness debate part 2	Canal boat tour	17:45 William James Prize
17:30				
18:00				
18:30				
19:00	Reception – Hotel Arena		Conference dinner - Noorderlicht	
19:30				
20:00				
20:30				
21:00				
21:30				Conference party – Brazilian Roots

The conference takes place at the Roeterseiland Campus of the University of Amsterdam in buildings A and C. The registration/information desk in hall A will be open from 8:00 until 19:00 on Tuesday, and from 8:00 until 17:00 on all other days.

Note:

- The opening, closing, the great consciousness debate, and all keynotes will also be streamed in rooms Stock Market (A1.02) and Fahrenheit (A1.03) for those who prefer more space.
- The parallel symposia will be streamed as well. Symposia in room Fire Hose (C1.03) will be streamed in room Stock Market (A1.02), and symposia in room Bluetooth (C1.04) will be streamed in room Gin (C0.02).

Tuesday July 12th

9:00-12:00

Tutorials session 1

A practical guide to collaborative consciousness science	Rony Hirschhorn Csaba Kozma Tanya Brown Alex Lepauvre	A2.06
Information theory tools for practical analyses of neuroscientific data	Pedro A.M. Mediano Fernando E. Rosas Daniel Bor	Stock Market (A1.02)
Modeling metacognition using the HMeta – d toolbox	Stephen Fleming	A2.10
Neurophenomenology and micro-phenomenology to the study of the subjective experience	Adriana Alcaraz Sanchez Fynn-Mathis Trautwein Ema Demšar Ohad Nave	Fahrenheit (A1.03)

12:00 – 13:00

Lunch at own initiative

13:00-16:00

Tutorials session 2

Fitting SDT, meta-d' and other ordinal models using the bhsdtr2 package	Borysław Paulewicz	A2.08
Integrated information theory – overview and recent developments towards IIT 4.0	Larissa Albantakis William Marshall Melanie Boly	Stock Market (A1.02)
The ethics of animal consciousness	Timo Stein Matan Mazor	A2.10
The inner workings of registered reports	Zoltan Dienes	A2.06
Time and consciousness	Paula Droege	Fahrenheit (A1.03)

16:15 – 16:30

Opening by Lucie Charles (Executive Director) and Simon van Gaal (General Chair conference)

Windmill
(A0.01)

16:30 – 17:30

Presidential address by prof. Elisabeth Pacherie

Windmill
(A0.01)

Shared experiences

We are conscious creatures but we are also hyper-social creatures. Indeed, some of our more vivid experiences appear to be shared experiences: the joy experienced by supporters when their team wins a game, the sense of joint agency experienced by the team members when playing together or the memories evoked when old war veterans reminisce together. However, the exact nature of such shared experiences remains difficult to pin down. In what sense must experiences be related to qualify as shared experiences? What specific subjective qualities, if any, characterize them in contrast to purely individual experiences? What are the cognitive processes responsible for their emergence? What are the factors modulating these experiences? How can they be studied experimentally? I will try and provide some tentative and partial answers to these questions. Taking the experience of joint agency as my main case study, I will delineate a conceptual framework for approaching this phenomenon and present some recent empirical work. In closing, I will highlight some of the many outstanding questions we face and promising avenues of research.

17:30 – 18:30

Keynote by prof. Claire Sergent

Windmill
(A0.01)

The global workspace and the global playground: a functional perspective on consciousness beyond task-related processes

When we contrast how the brain processes the same external stimulation according to whether we report it as perceived or not, we observe a whole series of neural events that correlate with this conscious report. One of the challenges we are now facing in consciousness research is to identify, among these correlates, what corresponds to core mechanisms of conscious access, and distinguish them from upstream events, such as early sensory processing, that influence the future conscious or unconscious fate of an information, and from downstream events that reflect a mere consequence of conscious access, such as the possibility to engage in explicit decision-making tasks or reports. Here I will present the results of two experimental approaches that we are currently developing in my team to perform this dissection, and I will discuss their potential for identifying neural signatures of conscious access independent of report. These new developments call for an extension of functional perspectives on consciousness such as the global workspace model, to explain conscious experience beyond task-related processes.

19:00 – 22:00

Reception

Hotel Arena

Walking distance from the conference site. Students/organisation will show you the way. There will be small bites and some more substantial dishes.

Wednesday July 13th

9:00-11:00	Concurrent talks 1 – Perceptual Consciousness 1	Fire Hose (C1.03)
	Tonic catecholamine activity and spatial attention jointly shape visual perception	Stijn Nuiten 9:00
	Visual ambiguity facilitates access to consciousness	Nadav Amir 9:15
	Using Saccade-Induced Change Blindness to Refine Existing Theories of Conscious Perception	Brian Odegaard 9:30
	Perceptual expectations and false percepts generate stimulus-specific activity in distinct layers of the early visual cortex	Joost Haarsma 9:45
	Perceptual Awareness Negativity - does it reflect awareness or attention?	Michal Bola 10:00
	Reproduction, but not confidence, can dissociate conscious perception from non-perceptual bias	Nicolás Sánchez-Fuenzalida 10:15
	How to create new visual illusions (and why it matters)	Arthur Shapiro 10:30
	Two Puzzles for Attention Science	Rebecca Keller 10:45
9:00-11:00	Concurrent talks 2 – (Measuring) unconscious processes	Bluetooth (C1.04)
	Unconscious reactions and reactions to unconscious stimuli	Tomáš Dominik 9:00
	Progressing, not regressing: a possible solution to the problem of regression to the mean in unconscious processing studies	Itay Yaron 9:15
	Measurement Error and the Investigation of Unconscious Mental Processes	Simone Malejka 9:30
	How (not) to underestimate unconscious perception	Matthias Michel 9:45
	Feasibility of Unconscious Instrumental Conditioning: A Registered Replication	Ryan Scott 10:00
	Adaptively conscious: Stimulus awareness is necessary for both instrumental learning and responding to previously learned stimuli	Lina Skora 10:15
	Validating the threshold of conscious sensory perception	Aaron Schurger 10:30
	Bias in assessing awareness in research on unconscious mental processes	David Shanks 10:45

Wednesday July 13th

9:00-11:00	Concurrent talks 3 – Consciousness in the clinic	Stock Market (A1.02)
	Stimulation of the subthalamic nucleus increases confidence in conscious perception	Audrey Kist 9:00
	Minor hallucinations and cognitive decline in Parkinson's disease	Fosco Bernasconi 9:15
	Neural signatures of unresponsiveness vs unconsciousness during seizures	Urszula Gorska 9:30
	Breathing patterns signal consciousness state, recovery and survival in disorders of consciousness	Anat Arzi 9:45
	Investigation of apomorphine-related neural mechanisms in severe brain-injured patients with prolonged disorders of consciousness	Emilie Szymkowicz 10:00
	Neurophysiological interpretable and quantitative screening of Disorders of Consciousness beyond behavioural responsiveness	Michele A. Colombo 10:15
	Multicentre Study on tDCS in Patients with Disorders of Consciousness: A Sham Controlled Double Blind Randomized Trial	Aurore Thibaut 10:30
	High density EEG signatures of connected vs disconnected consciousness during REM sleep	Benedetta Cecconi 10:45
9:00-11:00	Concurrent talks 4 – Philosophical and experimental approaches to understanding perceptual experience	Gin (C0.02)
	Does consciousness emerge?	Carolyn Dicey Jennings 9:00
	The Emperor's New Markov Blankets	Manuel Baltieri 9:15
	Conscious appreciation of the reliability of an inference	Nicholas Shea 9:30
	Phenomenal consciousness: in search of property Σ	Herman de Regt 9:45
	Background organismic sentience, a key bridge between life and mind	Ignacio Cea 10:00
	Sensory qualities and labelled lines: the case of thermosensation	Patrick Haggard 10:15
	Role of Conscious Perception in Semantic Processing	Nitzan Micher 10:30
	Imagination - constructing an internal conscious landscape	Oryan Zacks 10:45
11:00 – 11:30	Coffee	Hall A

Wednesday July 13th

11:30 – 12:30

Keynote by prof. Tim Bayne

Windmill
(A0.01)

Organoids, Androids and the Consciousness Club

At present, the creation of conscious agents involves techniques that will be familiar to anyone who has spent time on a farm or taken a sex education class. These techniques will surely remain popular, but we may soon have new ways to create conscious agents. One possible path to synthetic consciousness involves human brain organoids; another involves AI systems, such as the descendants of IBM's Watson and DeepMind's AlphaZero. Even if neither of these paths do in fact lead to the creation of synthetic consciousness, they are likely to lead to the creation of artefacts that might reasonably be taken as conscious. These developments raise a number of deep and difficult questions. Should we expand the membership of the 'consciousness club' by creating new kinds of conscious agents, or would any attempt to bring new kinds of conscious entities into existence be morally problematic? Whose interests should we take into account in considering whether or not to create synthetic consciousness? What difference would (or should) consciousness make to our treatment of artefacts? This talk explores these (and other) questions, focusing on how debates about the nature of consciousness might influence their answers.

12:30 – 14:00

Lunch

Hall A

13:30 -15:30

Poster session 1

Topics: time perception; confidence and metacognition; disorders of consciousness; interoception, pain and emotion; methods and paradigms; philosophy of mind; unconscious processes; volition; perceptual consciousness

'de Brug' /
the bridge

Time perception

#

Participatory time-making: the co-embodied relational basis of time-consciousness in humans

Anna Ciaunica

1

Confidence and metacognition

A low-dimensional approximation of optimal confidence

Pierre Le Denmat

2

Action planning modulates perceptual confidence

Remi Sanchez

3

Decision confidence underlies both attractive and repulsive history biases

Robin Vloeberghs

4

Expectations about precision bias metacognition and awareness

Helen Olawole-Scott

5

Getting drowsy but knowing you are doing it worse: impaired performance but preserved metacognition as we fall asleep

Joaquim Streicher

6

Identifying shared markers of evidence accumulation and confidence using stereotactic electroencephalography

Nathan Faivre

7

Individual Differences in the Vividness of Visual Imagery and Episodic Memory

Nora Andermane

8

Is Metacognition Domain-specific or Domain-general?

Astrid Emilie Lund

9

Manipulating prior beliefs causally induces under- and overconfidence

Hélène Van Marcke

10

Mind wandering as inference: contextual cues shape mind wandering reports

Naya Polychroni

11

Wednesday July 13th

Modulation of the Centroparietal Positive Potential by Strength and Amount of Evidence and its Relation to Decision Confidence	Maximilian Bruchmann	12
Noradrenaline encodes surprise and confidence during learning in stochastic and changing environments	Audrey Mazancieux	13
Reward makes it feel less costly: subjective experience of effort is constructed weighing contextual cues	Gaia Corlazzoli	14
Should I sample or should I go: Deciding when to stop sampling and how confidence relates to stopping decisions	Esin Turkakin	15
Why does it feel good to be sure? A unifying framework of decision confidence and affect	Alan Voodla	16
Comparing signal detection theoretic models of visual metacognition	Manuel Rausch	17
Pre- and post-decisional event-related potential (ERP) correlates of decision confidence are differentially related to decision accuracy	Yiu Hong Ko	18
Differential relationship between response dynamics and the formation of confidence varies across the adult lifespan	Helen Overhoff	19
Metacognitive domains do not group based on internal vs. external sources of information	Polina Arbuzova	20
Subjective attentional focus and fluctuations in objective task performance are reliable but unrelated traits	Marlou Nadine Perquin	21
Bayesian meta-analysis reveals increase in metacognitive efficiency through feedback	Sucharit	22
New goal-dependent evidence bias in human decision confidence: experimental evidence and theoretical insights	Pradyumna Sepulveda	23
Dynamic Causal Modelling of a Neural Network Supporting Decision Confidence	Yuena Zheng	24
Influence of prior knowledge on retrospective episodic memory confidence judgments	Meline Devaluez	25
<i>Disorders of consciousness</i>		
Ketamine to treat disorders of consciousness: a pilot protocol	Paolo Cardone	26
Probing the threshold of conscious perception in patients with disorder of consciousness	Martina Corazzol	27
Developing a theoretical framework for multimodal diagnostic assessment for disorders of consciousness	Jasmine Walter	28
Perturbational Complexity Index detects capacity for consciousness before recovery of behavioral responsiveness in subacute brain-injured patients	Mario Rosanova	29
Propofol-induced changes in EEG aperiodic component has diagnostic value for patients in disorders of consciousness	Charlotte Maschke	30
Differences in EEG microstates dynamics among groups of patients with disorders of consciousness	Dragana Manasova	31
Spatiotemporal causal interactions show that posterior integration and thalamo-frontotemporal broadcasting are impaired in disorders of consciousness	Rajanikant Panda	32
Network criticality and its anesthetic-induced changes are associated with level of consciousness in disorders of consciousness	Guillermo E. Martinez Villar	33
Preservation of cardio-audio regularity processing as a predictor of coma outcome	Andria Pelentritou	34
Alterations in visual function and posterior metabolism correlate with consciousness levels of brain-injured patients	Leandro R. D. Sanz	35
Transcutaneous auricular vagal nerve stimulation as a treatment for disorders of consciousness: a randomized placebo-controlled double-blind trial	Marie Vitello	36
Characterization of the endotype of disorders of Consciousness responders to tDCS	Alice Barra	37

Wednesday July 13th

<i>Interoception, pain and emotion</i>		
Body-Wandering: Investigating the Subjective and Physiological Fingerprints of Interoceptive Mind-wandering	Leah Banellis	38
Distinguishing Interoceptive Accuracy and Precision: A Multidimensional Psychophysical Approach	Nicolas Legrand	39
Heartbeat-evoked response and ongoing brain oscillations during interoceptive and exteroceptive information processing predict attentional focus	Emilia Fló	40
Incongruent interoceptive signals shift our attention to ourselves	Paradeisios Alexandros Boulakis	41
The predictive brain in pain, cross-views from Bayesian inference and meditation	Arnaud Poublan-couzardot	42
The perception of interoceptive signals in blind individuals	Dominika Radziun	43
Neural dynamics during experiencing different types of interoception	Yusuke Haruki	44
Affective expectations are modulated by the interplay between visceral signals and uncertainty of the sensory environment	Alexandrina Vasilichi	45
Conscious agency over breathing movements is coupled with automatic breathing motor adaptation	Sophie Betka	46
<i>Methods and paradigms</i>		
Consciousness Science needs some Rest	Marcin Koculak	47
Contextual Cueing: Evidence for Implicit Recognition or Not?	Sascha Meyen	48
Exploring Causal Emergence in simulated networks	Nadine Spsychala	49
Tackling the Sampling Bias Problem when Estimating Information Decomposition Measures from Neuroimaging Data	Juan Carlos Farah	50
Telling between strong and weak null results using non-directional tests	Itay Yaron	51
The Consciousness Questionnaire	Renate Rutiku	52
Listening to experience: Improving neuroimaging with micro-phenomenology	Chris Allen	53
Dissociating subjective visibility and objective accuracy in time	Zefan Zheng	54
Dynamical Independence: Discovering emergent macroscopic processes in complex neural systems	Lionel Barnett	55
Disentangling Unique and Synergistic Components of Information Flow in Neuroimaging Data	Sebastián Dohnány	56
Role of Synergy and Redundancy in neural information flow of conscious and unconscious subjects	Alberto Liardi	57
<i>Philosophy of mind</i>		
Qualia as Perspective-Induced Nonstructural Impressions	Kristjan Loorits	58
Conscious and unconscious phenomenality: changes in the conceptual relations between phenomenality, what it is likeness and consciousness	Michal Polák	59
Illusionism or non-computationalism: no easy solution to the problem of consciousness	Yair Pinto	60
How to get rich from inflation	Simon Brown	61
<i>Unconscious processes</i>		
Semantic evidence accumulation without metacognition and awareness: evidence from psychophysical and fMRI decoding studies	Patxi Elosegi	62

Wednesday July 13th

Statistical learning facilitates access to awareness	Luzi Xu	63
Unconscious Processing in the Wild: Multi-trial Inattentional Blindness in Virtual Reality	Rony Hirschhorn	64
Reversed association between discrimination performance and visibility reports	Pietro Amerio	65
Prime-induced illusion of control: The role of regression-to-the-mean artifacts	Fabian Kiepe	66
Awareness, attention, and threats - exploring the limits of unconscious fear reaction	Łucja Doradzińska	74
<i>Volition</i>		
Patterns of Introspection: Awareness of Intention in Matsushita task	Ondrej Becev	67
The Role of Mental Imagery in the Experience of Volition	Paulius Rimkevičius	68
How are the awareness of voluntary actions and the readiness potential impacted by peripersonal space and action-outcome?	Gaiqing Kong	69
Pupillary antecedents of spontaneous voluntary action	John Gavenas	70
<i>Perceptual consciousness</i>		
Presence-absence asymmetries in predictive perception	Matan Mazor	71
Implicit learning of realistic body movements in a virtual reality environment	Razvan Jurchis	72
Is informational overflow enough? A plea for dimensionality measures in consciousness science	Jérôme Sackur	73

15:30 – 19:30

The Great Consciousness Debate
Moderated by prof. Lucia Melloni & prof. Liad Mudrik

Windmill
(A0.01)

Prof. Stanislas Dehaene, prof. Stephen Fleming, prof. Melanie Boly,
prof. Anil Seth, prof. Victor Lamme

19:00 – 22:00

Student Social boat party

Eye museum

Organised by the ASSC Student Committee, open to all undergraduates, graduates, and postdocs.

Thursday July 14th

9:00-11:00	Parallel symposium 1 – The interplay between beliefs and perceptual awareness	Fire Hose (C1.03)
	How do beliefs shape perception?	Clare Press
	How do we separate beliefs from perception?	Floris de Lange
	Epistemic structures in perception	Zoe Jenkin
	Learning, influence, and psychopathology impact perception	Philip Corlett

9:00-11:00	Parallel symposium 2 – Global Neuronal Workspace vs. Integrated Information Theory: Methods, predictions, and competing interpretations from the COGITATE adversarial collaboration	Bluetooth (C1.04)
	War of the Worlds: A dramatic reading of the COGITATE project	Francis Fallon
	GNW vs. IIT: How to integrate and test the theories' predictions	Urszula Górska
	GNW vs. IIT: From theoretical predictions to empirical tests	Oscar Ferrante
	GNW vs. IIT: Decoding of consciously perceived stimuli in the brain	Ling Liu (presented by Gabriel Kreiman)

11:00 – 11:30	Coffee	Hall A
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11:30 – 12:30	Keynote by prof. Pieter Roelfsema	Windmill (A0.01)
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Interactions between cortical neurons that give rise to conscious perception

Why are some visual stimuli consciously perceived, whereas others remain subliminal? I will discuss how weak but simple stimuli reach access consciousness once they elicit a minimal level of activity in the frontal cortex, leading to their storage in working memory. For simple stimuli, the visual cortex apparently acts as a relay station that needs to pass the information to higher cortical areas but is not essential for report. However, we found that the perception of more complex visual stimuli relies on a more sustained interaction between visual cortex and associative brain regions, related to scene segmentation and visual attention. The implication is that the processes subserving conscious perception depend on the complexity of perceptual processing. These results pave the way for a genuine understanding of mechanisms for phenomenal and access consciousness in perception. I will propose a generalization of the distinction between phenomenal and access consciousness to memory, where some items are in iconic memory, others are in the focus of attention within memory and yet others are accessory, i.e. stored for later use. I will demonstrate how iconic memory corresponds to a decaying neuronal activity trace in early visual cortex whereas items in working memory are stored by persistent firing. Items in the focus of attention within working memory elicit more persistent activity than the ones that are accessory. The new results call for a re-evaluation of the relationship between consciousness and attention.

Thursday July 14th

12:00 – 13:00

Lunch at own initiative

13:30 -15:30

Poster session 2

Topics: models and theories of consciousness; body, agency and the self; animal and machine consciousness; neural correlates and mechanisms; functions of consciousness; ethics and morality; development and learning; states/levels of consciousness

'de Brug' /
the bridge

Models and theories of consciousness

#

Attributing awareness to the self and others Rachel Metzgar 1

Deep neural networks trained for speech recognition do not generalize to sine-wave speech Yunkai Zhu 2

Filled/non-filled pairs: An empirical challenge to integrated information theory Amber Hopkins 3

Modelling the Dynamics of Consciousness with Mean-Field Differential Equations Cornelia Sheeran 4

Unfolding underdetermination in consciousness science Marlo Paßler 5

Attractor landscapes in the (conscious, behaving) Bayesian brain Eelke Spaak 6

Matching integrated information with the external world Niccolo Negro 7

Minimal Models of Consciousness Wanja Wiese 8

RateML: A Code Generation Tool for Brain Network Models Michiel van der Vlag 9

Towards integrating mathematized phenomenology with the scientific study of consciousness Robert Prentner 10

Phenomenal content and nondual awareness Zoran Josipovic 11

Brainish: Formalizing A Multimodal Language for Intelligence and Consciousness Paul Pu Liang 12

Integrated Model for Consciousness by Incorporating an Operator in Orch-OR Theory Gregory Mathew 13

Self-Consciousness, Anxiety Management and Foresight. An Evolutionary Approach Christophe Menant 14

A Genetic Basis for 16 Variations in Consciousness James Olson 15

Explaining awareness with precision? Daniel Yon 16

Axiomatic and graphical mathematics to describe the structure of experience Camilo Miguel Signorelli 17

Fluency Alone Does Not Explain Illusory Truth Nicolas Porot 18

The computation of conscious representations: questions and challenges Monika Derda 19

Body, agency and the self

Choice blindness persists despite explicit instructions to detect false feedbacks: preliminary evidence for a Bayesian model of choice blindness Gabriel Vogel 20

Conscious and unconscious influences on self-face perception Tommaso Ciorli 21

Exploring Sense of Agency with Noninvasive Brain Stimulation: a tRNS/tACS study Olga Laskov 22

I move therefore I am or I move therefore he is. Do motion kinematics encode information regarding agency processes? Asaf Applebaum 23

Thursday July 14th

Inducing presence hallucinations by sensorimotor conflicts during locomotion	Selim Habiby Alaoui	24
Interplay of tactile and motor information in constructing spatial self-perception	Antonio Cataldo	25
Living in a Dream: Body and self experience during waking and dreaming states in depersonalisation.	Matt Gwyther	26
Neural Correlates of the Bodily Self: an fMRI study of Ownership and Agency	Ariel Shaked	27
Rekindling childhood memories by generating ownership for one's own younger face	Utkarsh Gupta	28
Bias-free quantification of body ownership in the rubber hand illusion: a signal detection study	Renzo Lanfranco	29
Inducing Out-of-body experiences through visuo-vestibular stimulation using mixed reality on a motion platform	Hsin-ping Wu	30
A non-linear relationship between self boundaries and perspectival ownership of experience	Lena Lindström	31
Tactile self-other-distinction in anorexia and autism	Rebecca Boehme	32
Being and having a body in development: what modulates bodily-self-consciousness during adolescence?	Raoul Lisa	33
Making 'sense' of agency: the self is coded with reference to its location in space	Debbie de Boer	34
On the influence of hierarchical environments on the human sense of agency	Emilie Caspar	35
Alleviating the measurement crisis in the body ownership field through the use of a dual target presentation format	Piotr Litwin	36
Somatic Alienation: what it's like, a hypothesised mechanism, and in investigative method	Kranti Saran	37
<i>Animal and machine consciousness</i>		
Jack of All Trades, or Master of One: Distinct Features Between Generalizable and Specialized Artificial Neural Representations	Alexandra Proca	38
On the link between conscious function and general intelligence in humans and machines	Ryota Kanai	39
<i>Neural correlates and mechanisms</i>		
"Laurel & Yanny": EEG Neural Correlates of an Auditory Bistable Language Stimulus	Alexander Franklin	40
A no-report dichoptic color fusion EEG paradigm for isolating NCCs	Madeleine Fenner	41
Cognitive control neural reconfiguration styles when under attentional or alertness stress	Margot Steijger	42
Disentangling Psychophysiological Correlates of Consciousness and Attention. The effects of cueing on the detection, identification and visibility.	Wiktoria Jakubowska	43
Domain-specificity of error monitoring: an ERP study	Sabrina Lenzone	44
Electrophysiological correlates of auditory and visual awareness: in search for domain-specific and domain-general mechanisms of conscious perception	Kinga	45
Graviceptive contribution to first-person perspective: behavioral and fMRI neural correlates	Estelle Nakul	46
How working memory load affects conscious and unconscious neural processing of task-irrelevant acoustic stimuli	Laura Brockhoff	47
Identifying content-independent neural correlates of awareness	Benjy Barnett	48
Laminar Specificity of the Auditory Awareness Negativity Under Multitone Masking: A Biophysical Modeling Study	Andrew Dykstra	49

Thursday July 14th

Mindful mental states can modulate neural signals that encode food preferences	Constanza Baquedano	50
Modality-specific and modality-general electrophysiological correlates of visual and auditory awareness: Evidence from a bimodal ERP experiment	Dmitri Filimonov	51
Noradrenaline as a key neurotransmitter in modulating consciousness	Olympia Karampela	52
Propofol disrupts asynchronous functional connectivity architectures in the human brain that are associated with the processing of complex stimuli	Greg Cooper	53
Synergistic and redundant patterns of information across cortical regions underlie visual and auditory perception	Florian Burger	54
Thalamocortical causal communications in conscious perception	Byoung-Kyong Min	55
Tracking unexpected sensory events at different time scales dissociates modality-specific and supramodal dynamics along a cortical hierarchy	Maria Niedernhuber	56
Visual retro-cues reactivate past spoken words in a dichotic listening paradigm	Axel Garnier-Allain	57
Preserved electrophysiological markers of confidence in schizophrenia	Rouy Martin	58
EEG correlates of bodily self-consciousness during spatial navigation	Emanuela De Falco	59
Investigating the spatiotemporal dynamics of intracerebral EEG recordings to sounds around the perceptual threshold in the presence and absence of a task	Daphné Rimsky-Robert	60
Early visual potentials at the sensory threshold are selectively modulated by cardiac and respiratory cycles	Viviana Leupin	61
The 2-feature Simultaneous Type/ Serial Token model: behaviour and event related potentials for distractor intrusion errors and a link between selective attention and access to consciousness	Mahan Hosseini	62
A mechanistic model of the neural entropy increase elicited by psychedelic drugs	Rubén Herzog	63
Information flow among visually responsive ECoG sites in human cortex	Guillaume Corlouer	64
Functional MRI investigation of the brain networks subtending task-related versus task-free auditory conscious perception	Julie Boyer	65
Neurophysiological mechanism imaging during xenon-induced reduction of consciousness: Whole-brain-to-posterior shutdown process	Levin Kuhlmann	66
Conceptual associations generate sensory expectations throughout the visual system	David Richter	67
Neural correlates of subjective attention focus and objective task performance	Aline Bompas	68
A new low: Reassessing (and revising) the local recurrency theory of consciousness	Benjamin Kozuch	69
Neural Correlates or Difference Makers for Consciousness?	Sascha Fink	70
Training individual differences in color qualia: representations in time and space	Olympia Colizoli	71
The three major features of consciousness naturally emerge from non-deterministic computation in cortical neural networks	Elizabeth Stoll	72
A connectome-based model of conscious access in monkey cortex	Ulysse Klatzmann	73
<i>Functions of consciousness</i>		
How alertness affects detection and discrimination decision-making performance as we fall asleep	Yanzhi Xu	74
The two lives of visual working memory – what we remember and how we perceive it.	Renate Rutiku	75
<i>Ethics and morality</i>		
Majority of Consciousness Researchers Surveyed Support Open Science Practices Despite Perceptions That Their Peers Are Less Supportive	Olivia Lowrey	76

Thursday July 14th

Development and learning

Can we train students to predict their sports performance?

Lise Brun

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States/levels of consciousness

Spatiotemporal dynamics of flow experience: an EEG microstate analysis

Shiva Khoshnoud

78

Age-dependent attentional style and arousal regulate reportability of spontaneous mental states

Matthieu Koroma

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Thursday July 14th

15:30-17:30	Concurrent talks 5 – Models and theories of consciousness	Fire Hose (C1.03)
Representation of content in sustained viewing conditions: a case study for consciousness theories	Gal Vishne	15:30
What do recurrent processing theories predict about infant consciousness?	Claudia Passos	15:45
Can introspection rescue causal structure theories, such as IIT, from the unfolding argument?	Michael Herzog	16:00
New developments of sensorimotor theory of phenomenal consciousness: how different types of voluntary control determine the 'what it's like' of sensory, bodily, emotional and mental conscious experiences	J. Kevin O'Regan	16:15
A Model of Unintentional Mind Wandering	Isaac Christian	16:30
Ontogenetic emergence as a criterion for theories of consciousness: Comparing SOMA, GNW and REF-CON	Asger Kirkeby-Hinrup	16:45
The Strength of Weak Integrated Information Theory	Pedro Mediano	17:00
How long-lasting postdiction challenges local theories of consciousness	Adrien Doerig	17:15

15:30-17:30	Concurrent talks 6 – Neural correlates of consciousness 1	Bluetooth (C1.04)
Decoding perceptual awareness across the brain with a no-report fMRI masking paradigm	Michael Cohen	15:30
Distinct EEG bifurcation dynamics in report and no-report conditions of a visual masking paradigm	Michael Pitts	15:45
Modeling bifurcation dynamics in neural networks during access consciousness: adding distributed coding and computations in the Global Neuronal Workspace Model.	Esther Poniatowski	16:00
Large-scale, MRI-based neuroarchitectural mapping of consciousness	Kristian Sandberg	16:15
Neural correlates vs. mechanisms of consciousness: a cautionary tale from mouse experiments	Umberto Olcese	16:30
NMDA receptor antagonist memantine selectively affects recurrent processing and impairs conscious perception	Samuel Noorman	16:45
Neural correlates of consciousness in an attentional-blink paradigm with uncertain target relevance	Torge Dellert	17:00
Separate auditory and motor contributions to sound-evoked activity of neurons in primary visual cortex	Cyriel Pennartz	17:15

Thursday July 14th

15:30-17:30	Concurrent talks 7 – Time and volition	Stock Market (A1.02)
	Do Magnetoencephalography signals reveal a function that limits the pace of perceptual experience?	Chris Allen 15:30
	Timekeeping in cortex: primary somatosensory cortex encodes time and temporal surprise	Rikki Rabinovich 15:45
	From perceptual change to the experience of time via event segmentation	Alberto Mariola 16:00
	No evidence for relationship between basic visual temporal precision and time estimation abilities	Isabel Maranhao 16:15
	Voluntary action, sense of agency and uncertainty	Silvia Seghezzi 16:30
	Baseline correction can lead to spurious results in readiness potential research	Lucas Jeay-Bizot 16:45
	On the relationship between cardiac and skin-mediated interoceptive submodalities	Laura Crucianelli 17:00
	The Cardiac Timing Toolbox (CaTT): Testing for physiologically plausible effects of cardiac timing on behaviour	Maxine Sherman 17:15

15:30-17:30	Concurrent talks 8 – Body, agency and the self	Gin (C0.02)
	Tracking conscious intentions during action formation	Uri Maoz 15:30
	Sense of agency within a metacognitive framework: The role of visual feedback of movement and outcome on metacognitive representations of agency	Angeliki Charalampaki 15:45
	My Uncertain Body: proprioceptive uncertainty and body ownership	Marie Chancel 16:00
	Hierarchical Processing of the Embodied Sense of Agency and Its Metacognition	Amit Regev Krugwasser 16:15
	Disrupting the sense of agency via closed-loop TMS-EMG	Alice Wong 16:30
	Bodily self-consciousness impacts naturalistic episodic memory reinstatement	Nathalie Meyer 16:45
	Depersonalization affects self-prioritization of bodily, but not abstract self-related information	Mateusz Wozniak 17:00
	Volitional embodied-self dissolution in meditators is associated with beta attenuation in multisensory regions – a neurophenomenological MEG study	Fynn-Mathis Trautwein 17:15

Thursday July 14th

17:30 – 19:00

Canal boat tour (to conference dinner)

Departure near conference site at Amsterdam Boat Adventures, Amstel 51 (near Hermitage Amsterdam). Four boats will leave between 17:45 and 18:00. If you miss the final boat, you can take the ferry at Amsterdam Central Station to NDSM (timetable here: <https://reisinfo.qvb.nl/en/lijnen/F4/dienstregeling/terug/4257>)

19:00 – 22:30

Conference dinner

Noorderlicht

A canal boat will take you to the dinner location. Vegetarian BBQ.

To go back across the water after the dinner, you can take a free ferry from NDSM (walking distance from Noorderlicht) to Amsterdam Central Station. The ferry will leave every 30 minutes and the last one leaves at 23:30 (Full timetable here: <https://reisinfo.qvb.nl/en/lijnen/F4/dienstregeling/heen/4257>).

Friday July 15th

9:00-11:00	Parallel symposium 3 – Evidence accumulation and consciousness	Fire Hose (C1.03)
	A leaky evidence accumulation process for perceptual experience	Michael Pereira
	The accumulation of evidence for perception and confidence	Tarryn Balsdon
	Conscious correlates of evidence accumulation in perception and action	Elisabeth Pares Pujolras
	Mapping evidence accumulation to decision confidence	Kobe Desender

9:00-11:00	Parallel symposium 4 – Thought-full or thought-less: how empty can the conscious mind get?	Bluetooth (C1.04)
	Introduction: Motivation of symposium (3 minutes)	Athena Demertzi
	Kinds of empty minds	Jennifer Windt
	Exploring the presence and absence of mental objects during mindfulness practice	Antoine Lutz
	Sleep-like brain activity predicts when the mind goes blank	Thomas Andrillon
	At the boundaries of mental state reportability: the case of mind blanking	Athena Demertzi
	Panel discussion (final 17 minutes)	

11:00 – 11:30	Coffee	Hall A
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11:30 – 12:30	Keynote by prof. Irene Tracey	Windmill (A0.01)
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Can we ever really 'see' pain or consciousness?

Pain is a conscious experience, and the brain is key to the experience of pain and pain relief. In addition to understanding acute and chronic pain as major medical health problems in their own right, we have additionally worked at the interface of pain perception and conscious awareness using advanced neuroimaging and electrophysiological techniques combined with anaesthesia. The interrelationship between pain perception and consciousness is fascinating to understand as it potentially unlocks a better understanding of both domains.

Relating specific neurophysiological mechanisms from the brain, brainstem and spinal cord, identified using neuroimaging, that are relevant in acute and chronic pain experiences has tremendous value. Chronic pain is one of the largest medical health problems in the developed world with one in five adults suffering. Relating these neural mechanisms to individual pain experiences, measures of pain relief, persistence of pain states, degree of injury and genetics as well as determining neural network vulnerabilities towards chronic pain development has neuroscientific and potential diagnostic relevance. Advanced neuroimaging can powerfully aid explanation of a

subject's multidimensional pain experience, analgesia and even what makes them vulnerable or resilient to developing chronic pain.

This framework of understanding provides a foundation to better interpret changes in conscious awareness. Our multimodal neuroimaging work explores how anaesthetic agents produce altered states of consciousness such that perceptual experiences of pain and awareness are degraded. This is bringing us fascinating insights into the complex phenomenon of anaesthesia, perceptual awareness and the concept of self-hood.

Friday July 15th

13:30 -15:30	Poster session 3	'de Brug' / the bridge	
<i>Perceptual consciousness</i>			#
	Topics: perceptual consciousness; sleep and dreams; altered states of consciousness; states/levels of consciousness; consciousness in the clinic		
	A neural field model of synergistic interactions across cortical regions during auditory prediction error.	Louis Roberts	1
	EEG Lempel-Ziv diversity is related to meaningfulness of a stimulus - differences between sensory modalities	Pawel	2
	Evidence accumulation explains the duration of perceptual experience and its associated confidence	Michael Pereira	3
	Forest before trees, or trees before forest? Temporal hierarchy of gist and object recognition in scenes	Natalia Rutkowska	4
	Generating veridical and informative experiences via prediction	Kirsten Rittershofer	5
	Informative cue on stimulus frequency affects criterion in somatosensory near-threshold detection	Carina Forster	6
	Investigating the appearance of perceptual richness: A systematic review	Sophonria Barone	7
	Looking at blindsight: a complete perceptual profile characterisation of heminaopic patients	Diane Derrien	8
	Pre-stimulus alpha-band power predicts both objective task accuracy and subjective perceptual awareness	Aleksander Zębrowski	9
	The forest, the trees, or both? Hierarchy and interactions between gist and object processing during perception of real-world scenes	Marcin Furtak	10
	Virtual Veridicalism, Cognitive Orientation, and Fregean Representationalism	Yen-Tung Lee	11
	Visual imagination and visual working memory performance in older and younger healthy adults	Christopher Atkin	12
	We are just friends – the complicated relationship between occipital cortex excitability, occipital cortex TMS and visual perception	Justyna Hobot	13
	Choice behavior is optimal at intermediate levels of pupil-linked arousal across various modalities and decision types	Lola Beerendonk	14
	Why do some people seem more observant of changes in their environment? The role of mental imagery	Giulia Cabbai	16
	Loss-gain asymmetries in perceptual decisions	Matan Mazor	17
	Common and divergent cortical mechanisms of auditory prediction error across mammalian brains.	Andrés Canales-Johnson	18
	Processing of threatening bodies under different levels of perceptual awareness	Marta Poyo Solanas	19

One-shot perceptual learning from brief exposure to prior information	Adelina-Mihaela Halchin	20
The Perception Census: An extremely large-scale online study of perceptual diversity	Anil Seth	21
Cardio-audio and auditory regularity encoding during human wakefulness and sleep	Andria Pelentritou	22
Time-varying functional whole-brain connectivity synchronizes between individuals during movie watching	Basak Turker	23
Effect of individual differences in perceptual precision on central tendency effects	Reny Baykova	24
Capturing the experience of (artificial) touch	Ceci Verbaarschot	25
Friday July 15th		
Are phantom people analogous to phantom limbs?	Paul Corballis	26
Examining differential access of fear- and disgust-conditioned stimuli to visual awareness	Piotr Litwin	27
Divergent perception: linking creativity with perception of ambiguous visual stimuli	Antoine Bellemare	28
Sleep and dreams		
A relationship between lucid dreaming and metacognitive capacity	Mariana Pereira	29
Auditory adaptation dynamics across the sleep-wake cycle	Anat Arzi	30
Identifying the Neural Correlates of Dreaming with Intracranial Recordings	Csaba Kozma	31
Negative dream experiences predict waking emotional reactivity and emotion regulation	Enyu Lin	32
The phenomenological construction of lucid dreaming: a case study	Teresa Campillo Ferrer	33
Learning new vocabulary implicitly during sleep transfers with cross-modal generalization into wakefulness	Matthieu Koroma	34
Sleep Misperception in Insomnia is associated with Verbal Memory Erroring	Afik Faerman	35
Neurocognitive (dis)continuities between waking and dreaming states of consciousness	Valdas Noreika	36
Altered states of consciousness		
Altered states of consciousness: NLP and qualitative analysis of online reports	Conor Murray	37
Integration and neural propagation: empirical evidence for the usefulness of intrinsic ignitions	Glenn van der Lande	38
Measures of information processing reveal common and distinct features between propofol, ketamine and dexmedetomidine-induced sedation	Naji Alnagger	39
Mindfulness meditation state and traits modulate the brain gradient connectome in expert and novice meditators	Sébastien Czajko	40
Neural and phenomenological dynamics of psychedelic-like states through breathwork induced hypoxia	Evan Lewis-Healey	41
Syncope models the near-death-like experience	Charlotte Martial	42
A Specification of the Consciousness State-Space: Let's Split it!	Cyril Costines	43
Can psychedelics alter metaphysical beliefs?	Christopher Timmermann	44
Cross-study comparison of resting-state fMRI altered states of consciousness datasets: Establishing relationships between connectivity changes and phenomenology	Timo Torsten Schmidt	45
Psychedelics and schizophrenia: Distinct alterations to Bayesian inference	Hardik Rajpal	46

Effects of psilocybin on neurophysiological and phenomenal correlates of interoception	Marieke Weijs	47
Neurochemical profiling of psychedelic states of consciousness	Pablo-Alexandre Mallaroni	48
Quantitative phenomenology of serotonergic and anticholinergic hallucinogens: Evidence for multiple pathways to hallucinatory consciousness	George Fejer	49
Neural markers of cognitive control in high arousal	Chiara Avancini	50
The role of subjective experience in psychedelic therapy: Psychedelic-inspired VR-augmented therapy for treatment of mild-to-moderate depression	Karl Kristjan Kaup	51
Friday July 15th		
Subjective and EEG effects of the extended DMT experience	Lisa Luan	52
Consciousness and Blended Reality: The Alice Dali Augmented Reality Experience	Svetlana Rudenko	53
<i>States/levels of consciousness</i>		
Ketamine and sleep modulate neural complexity dynamics in cats	Claudia Pascovich	54
Sleep-related brain functional reorganization varies by task engagement	Samika Kumar	55
Brain complexity increases as conscious level decreases in order to maintain task performance	Laura Stolp	56
Characterising the behavioural and neural signatures of switching between internally and externally directed processes.	Sara Calzolari	57
<i>Consciousness in the clinic</i>		
Altered awareness in patients with Korsakoff syndrome living in long-term care facilities; a network analyses	Anouk van Loon	58
Assessing consciousness in people with advanced Alzheimer's disease in care homes using Bispectral index monitoring - a feasibility and pilot study	Jonathan Huntley	59
Conscious perception and the role of the basal ganglia: preliminary findings from a deep brain stimulation study	Evert Boonstra	60
Phenomenological experience and clinical benefits of hypnosis and cognitive trance	Nolwenn Marie	61
Functional near-infrared spectroscopy as a tool to assess residual and covert consciousness in the intensive care unit	Karnig Kazazian	62
Neural Synchrony and Complexity to Index Consciousness and Coma Patient Outcome	Sigurd Alnes	63
Development of an automated pipeline for the analysis of [18F]FDG-PET images in disorders of consciousness	Arianna	64
Revisiting the domain of suggestion: A meta-analysis of suggestibility across different contexts	Madeline V. Stein	65
Capturing Real World Driving Behaviour and Neural markers of reduced Conscious Awareness in Sleep Apnoea Patients	Kieran Lee	66

Friday July 15th

15:30-17:30	Concurrent talks 9 – Neural correlates of consciousness 2	Fire Hose (C1.03)
	Graded conscious perception during the attentional blink	Anna Eiserbeck 15:30
	Investigating the relationship between evidence accumulation and perceptual experience using sEEG	François Stockart 15:45
	Sequential sampling models for confidence in perceptual decision-making	Sebastian Hellmann 16:00
	Implicit inference of 'what's next' in a dynamic world	Martijn E. Wokke 16:15
	The role of structuralism in NCC research	Lukas Kob 16:30
	Bidirectionally connected cores of the human functional connectome	Tomoya Taguchi 16:45
	Hemispheric decoupling of awareness-related activity in human auditory cortex under informational masking and divided attention	Andrew Dykstra 17:00
	Influence of signal strength on conscious and nonconscious neural processing of emotional faces	Insa Schlossmacher 17:15

15:30-17:30	Concurrent talks 10 – Perceptual consciousness 2	Bluetooth (C1.04)
	Useful Misrepresentation: Perception as Embodied Proactive Inference	Joshua M Martin 15:30
	Position representations of moving objects align with real-time position in early visual cortex	Philippa Johnson 15:45
	Expectations boost the reconstruction of auditory features from electrophysiological responses to noisy speech	Thomas Andriillon 16:00
	Gaze stability does not fully explain perceptual filling-in	Max Levinson 16:15
	The capacity of iconic memory: how high is ultra-high?	Karla Matic 16:30
	Young children's subjective and objective thresholds and emergent process of visual consciousness using a backward masking task	Ryoichi Watanabe 16:45
	Phenomenological control in 'top-down' and 'bottom up' effects.	Peter Lush 17:00
	A nasal visual field advantage in interocular competition	Andre Sahakian 17:15

Friday July 15th

15:30-17:30	Concurrent talks 11 – (Altered) states of consciousness	Stock Market (A1.02)
What is it like to become aware that you are dreaming? Examining accounts of meta-awareness in lucid dreams	Ema Demšar	15:30
Nightmare frequency is associated with connectivity between the amygdala and prefrontal cortex	Mariana Pereira	15:45
Alert even in full unconsciousness! The Brain Selectively Tunes to Unfamiliar Voices during Deep Sleep	Manuel Schabus	16:00
Signs of consciousness in fetal magnetoencephalography	Joel Frohlich	16:15
Beyond informational complexity – reduced conscious level associated with increased redundancy and reduced synergy.	Daniel Bor	16:30
Auditory processing across different levels of arousal and consciousness	Amit Marmelshtein	16:45
Is microdosing with psychedelics more than a placebo-effect?	Michiel van Elk	17:00
A brain pattern of high integration and low segregation is recurrently observed after psilocybin administration	Sepher Mortaheb	17:15

15:30-17:30	Concurrent talks 12 – Confidence and metacognition	Gin (C0.02)
Optimal metacognitive decision strategies in signal detection theory	Lucie Charles	15:30
Intrinsic decision biases are under cognitive control	Clémence Compain	15:45
Differential effect of prior information on discrimination decisions and subjective confidence	Marika Constant	16:00
Effects of perceived numerosity on confidence	Nora Bradford	16:15
Is there a g factor for sensory metacognition? A large sample investigation of metacognition across sensory modalities	Katarzyna Hat	16:30
Evidence of tuned inhibition as the underlying mechanism of perceptual metacognition via fMRI	Shaida Abachi	16:45
The immediate effects of accuracy feedback on metacognitive processing	Marta Siedlecka	17:00
Confidence is detection-like in high dimensional spaces	Stephen Fleming	17:15

Friday July 15th

17:45 – 18:15

William James Prize

Windmill
(A0.01)

19th edition – winner 2022 - Ishan Singhal

The nineteenth William James Prize for Contributions to the Study of Consciousness was awarded to Ishan Singhal in 2022. Ishan's article "Time and time again: a multi-scale hierarchical framework for time-consciousness and timing of cognition" was published in Neuroscience of Consciousness in 2021 (<https://doi.org/10.1093/nc/niab020>). The paper proposes a new hierarchical model of time-consciousness that provides a theoretical framework for the phenomenology of temporal experience.

18:15– 18:45

Closing ceremony

Windmill
(A0.01)

21:00 – 3:00

Conference party

Brazilian Roots
