

EDITED BY A. FREITAS-MAGALHÃES

EMOTIONAL EXPRESSION: THE BRAIN AND THE FACE

3RD VOLUME: STUDIES IN BRAIN, FACE AND EMOTION

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EDICOES@UFP.EDU.PT | WWW.UFP.PT

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Preface

FACE TO FACE AND EMOTION AS A COMPASS

This is the third volume of the scientific project entitled “Emotional Expression: The Brain and The Face” which I have the pleasure to lead since 2008. It is befitting on the occasion of the eighth birthday of the Facial Emotion Expression Lab (FEELab, <http://feelab.ufp.pt>) that the project is strengthened through the pages of this volume, and in first place, its scientific motto: *Always Emotional*.

However, before outlining the topics of this volume, allow me to pay a well deserved and emotional tribute to the endeavours of Prof. Salvato Trigo, Rector of the University Fernando Pessoa (UFP, <http://www.ufp.pt>), in the development of this global project.

As I am working on the final phase of this book I have just reread the article “Facial Expression of Emotion¹” for the Encyclopedia of Human Behaviour, published by Elsevier (<http://elsevier.com>), in Oxford. It is, indeed, an unprecedented emotional experience. I was invited by my colleague Vilayanur S. Ramachandran, head of the Center for Brain and Cognition (CBC, <http://cbc.ucsd.edu/>) and Professor at the University of California (<http://ucsd.edu/>) and at the Salk Institute (<http://salk.edu/>). The invitation from the most highly reputed medical and scientific publisher in the world necessitated a reflection, and

¹ Freitas-Magalhães, A. (in press). Facial expression of emotion. In V. S. Ramachandran (Ed.), *Encyclopedia of human behavior* (2nd ed.). Oxford: Elsevier.

consequent summary, in two score pages, about the facial expression of emotion, from Darwin to today.

It was a fascinating journey, a discovery through the territories of human emotion, and above all it was a privilege to revisit the scientific discussion regarding the phenomenon of the facial expression of emotion and the desire to build instruments to measure it. The scientific studies, backed up by several theories, tackle the structural and functional pillars of the facial expression of emotion and argue for the need to develop an objective and rigorous assessment method.

From the 1960s onwards, especially in the wake of the work by my friend Paul Ekman (<http://www.paulekman.com>), it became apparent that the creation of such an instrument was inevitable. Throughout the years, several analysis methods were implemented. The Facial Action Coding System (FACS, a system created by Ekman and Friesen, in 1978, and reviewed by Ekman, Friesen and Hager, in 2002²), was, and remains, the method that has gained the broadest consensus in the scientific community, despite the healthy critical reactions it has provoked.

As with the “The Brain and The Face”, the scientific work in the Facial Emotion Expression Lab (FEELab/UFP) also focuses on the development of systems that allow study and contact with human emotion, such as the Psy7Faces³ (Psy7F, Freitas-Magalhães and Castro, 2006), which is an IT system that detects emotional incongruence, and which is used in criminal investigation, and more recently i-Phobos⁴ (i-Ph, Freitas-Magalhães and Castro, 2010), which is geared towards the prophylaxis and treatment of human phobias, and the innovative

² Ekman, P., Friesen, W. V. & Hager, J. C. (2002). *Facial Action Coding System*. Salt Lake City: Research Nexus Division.

³ Freitas-Magalhães, A., & Castro, E. (2006). Psy7Faces (Psy7F) (Version 1.0) [Computer software]. Oporto, Portugal: Facial Emotion Expression Lab (FEELab/UFP).

⁴ Freitas-Magalhães, A., & Castro, E. (2010). i-Phobos (i-Ph) (Version 1.0) [Computer software]. Oporto, Portugal: Facial Emotion Expression Lab (FEELab/UFP).

i-Autism project⁵ (i-Aut, Freitas-Magalhães and Castro, 2011), to help Autism sufferers to indentify and recognise basic emotions, and which is a therapeutic and educational tool.

Following the scientific line of thought of my friend Paul Ekman, in May this year I brought out the book “*O Código de Ekman: O Cérebro, a Face e a Emoção*” (The Ekman code: The brain, face and emotion), published by University Fernando Pessoa Press. It was with my friend Paul that I learned – as I say in the book – that, indeed, it is through the face that we get there. The dream is closer to realisation...

This book is merely a simple and modest tribute, in my way, to somebody who has given me a compass to guide me through the cartography of the human face. As such, I am reminded of the unique and frank homage paid to Paul Ekman when he was attributed the Honoris Causa Doctorate in March 2008, at the University Fernando Pessoa (UFP), and the words of praise I proffered at the time and published in the first volume of this series⁶.

I remember the words written to Prof. Salvato Trigo, Rector of the University Fernando Pessoa (UFP), on 3 April 2008, included in “Three Notes that Corroborate a Special Acknowledgement”, after the Honoris Causa Doctorate ceremony for Prof. Paul Ekman⁷: “*The ceremony was an example of academic dignity and the promotion of credibility of the scientific set-up at the University Fernando Pessoa (UFP), in national and international terms. The emotion felt by Prof. Paul Ekman – who made a point of transmitting it to me, in private, and the unprecedented mobilisation of the community, are two occurrences that will go down in history. Allow me, on this matter, to inform you of the*

5 Freitas-Magalhães, A., & Castro, E. (2011). i-Autism (i-Aut) (Version 1.0) [Computer software]. Oporto, Portugal: Facial Emotion Expression Lab (FEELab/UFP).

6 Freitas-Magalhães, A. (2009). The Ekman code or in praise of the science of the human face. In A. Freitas-Magalhães (Ed.), *Emotional expression: The brain and the face* (Vol. 1, pp. ix-xvii). Oporto: University Fernando Pessoa Press.

7 <http://feelab.ufp.pt/ekmandhc.swf>

pleasure felt by scientists who dedicate themselves to the study of the facial expression of emotion all around the world, especially Nico Fridja, Professor Emeritus of Amsterdam University, who believes, and I quote, “the distinction, as well as being well deserved, is an affirmation of the Portuguese university that attributes it in the context of the science of emotion,” thus reinforcing the content of my discourse. The distinction attributed to Prof. Paul Ekman has been mentioned in the entire world’s university community, most notably in the American Psychological Association (APA). New York University will attribute an identical honour to him in September. The ceremony corroborated what we told him in a meeting we held last week – it was an act of indelible importance and a weighty contribution to the sustainability and scientific and pedagogical credibility of the University Fernando Pessoa (UFP). In addition to the professional and personal satisfaction, the ceremony was a sign that the UFP can, and should, serve as an example to the world, paying homage to people whose merit and character are deserving of such distinction, in this case as a person among the 100 most important psychologists of the 20th century⁸. To sum up, and because it is just, and I am obliged to do so, in closing this chapter on my life, allow me to put out my hand to him to thank him for his attitude, availability and above all the endeavour he has put in towards the consummation of the goal. It is comforting to know, and to share the fact that my scientific and pedagogical compass is in good hands and stimulated. Because I am grateful to he who, without being tied to any force or held to ransom, knows how to reward and to recognise. This is the case in question. Only as such does life make sense, driving forward the belief in new challenges and calling for the right conjugation of the verbs in the right tense.”

Science – as I have been saying for years – only makes sense when shared. With that in mind this year I attended, among other events, the Conferences of the American Psychological Association (APA), the Association

8 <http://www.apa.org/monitor/julaug02/eminent.aspx>

of Psychological Science (APS), the European Health Psychology Society (EHPS), the 15th European Conference in Developmental Psychology (ECDP), and the 12th European Congress of Psychology (ECP).

This third volume includes collaboration of colleagues from the Fayetteville State University (<http://www.uncfsu.edu/>), the University of Tasmania (<http://utas.edu.au/>), the Monash University (<http://www.monash.edu.my/>), the Leeds Metropolitan University (<http://www.leedsmet.ac.uk/>), the La Trobe University (<http://www.latrobe.edu.au/>), the University of West Alabama (<http://uwa.edu/>), the University of Delhi (<http://du.ac.in/>), the University of Massachusetts Amherst (<http://umass.edu/>), the Rutgers – State University of New Jersey (<http://www.rutgers.edu/>), and the Berlin University of the Arts (<http://www.udk-berlin.de/>).

The volume is split into 10 chapters and is another contribution towards understanding the mechanisms behind the processing of the emotions, from the brain structures to the stage of the human face – the part of the body that we most show in our lifetime.

The overriding idea was to stimulate colleagues to reflect on the brain–face–emotion triad, with the consequent empirical and experimental, shared and proactive approaches. The following topics are tackled in this volume – Emotion: from the brain to the face and back; what the robot sees, what the human feels: robotic face detection and the human emotional response; beyond faces: the relevance of Moebius syndrome to emotion recognition and empathy; a complex case of pride: expressive behaviour, mixed emotions and the discursive approach to emotion; seeing what others feel; the sex offender and the facial expression of emotion: a brief overview and the Portuguese context; facial reactions to social threat: an investigation of the comprehensive theory of emotional reactions to social threat; knowing the self behind self-conscious emotions: cognitive and affective perspective; age, emotion expression, and cognitive load: age-related differences in attention, and under control – emotion regulation in film reception.

The heterogeneity of the articles bears out the plasticity of emotion, from its origins, the implications and the consequent implications and psychosocial applications.

For years I have been arguing that scientific work is not an isolated act, but rather a construction in a global network, with the overriding purpose of always being at the service of the people.

“The Brain and the Face” project, which has become a global interaction and scientific production tool, of inestimable usefulness in the academic world, will continue to pave the way for new volumes in the Studies in Brain, Face and Emotion series.

Finally, I would be neglecting my duty of basic justice if I failed to thank the generosity of all my colleagues. These contributions have been an example of sharing without a request for anything in return; simply a willingness to participate and generously share scientific work in the area of the facial expression of emotion.

A special word of thanks to the Rector of the University Fernando Pessoa, Prof. Salvato Trigo, who from the very start has stated that this kind of scientific and academic work makes every sense and has given his full institutional and personal backing to it, thus corroborating our feelings as regards understanding and the utility of Science.

I would also like to thank the international entities, which I am a member of, for their ready collaboration, disseminating this scientific and academic production, such as the American Psychological Association (APA, <http://apa.org>), the International Neuropsychological Society (INS, <http://the-ins.org/>), the Association for Psychological Science (APS, <http://psychologicalscience.org/>), the International Society for Research on Emotion (ISRE, <http://isre.org>), the International Positive Psychological Association (IPPA, <http://www.ippanetwork.org/>), the Society for Personality and Social Psychology (SPSS, <http://spsp.org/>), the European Health Psychology Society (EHPS, <http://ehps.net>), the Social Psychology Network (SPN, <http://www.socialpsychology>).

org/), the Humaine Association – Emotion Research (HA-ER, <http://emotion-research.net/>), the International Society for Facial Expression (ISFE, <http://facial-expression.org/>), and the International Brain Research Organization (IBRO, <http://www.ibro.org/>).

Finally, an acknowledgement and a tribute to my assistant Dr. Érico Castro for his hard work and total endeavour put into the “The Brain and The Face” project and for the emotional compass made available every day by the Facial Emotion Expression Lab (FEELab). It has now been running for eight years and counting...

Porto, 9 June 2011.

A. Freitas-Magalhães, Ph.D.

University Fernando Pessoa

Health Sciences School

Facial Emotion Expression Lab

<http://freitas-magalhaes.com>

<http://feelab.ufp.pt>

Contributors

A. FREITAS-MAGALHÃES

Facial Emotion Expression Lab (FEELab),

University Fernando Pessoa Health Sciences School, Oporto, Portugal

<http://feelab.ufp.pt>

Email: feelab@ufp.edu.pt

A. Freitas-Magalhães, Ph.D., is Professor of Psychology at University Fernando Pessoa Health Sciences School. He is also the founder and Director of Facial Emotion Expression Lab (FEELab), Editor-in-Chief of the Journal of Brain, Face and Emotion and member of the American Psychological Association (APA), International Neuropsychological Society (INS), European Health Psychology Society (EHPS), the International Society for Research on Emotion (ISRE), and the International Brain Research Organization (IBRO). Dr. Freitas-Magalhães is the author of FACE, a scientific project in Portugal that will allow neuropsychological mapping of the Portuguese facial expression. The FACE imaging technology will contribute to a database of facial expression available for the most diverse social applications, such as health, justice and education. His research focuses on neuropsychology, physiological psychology, psychology of emotions, facial emotion expression and human-computer interaction, human smile and cross-cultural non-verbal behavior. During the last twenty years, his principal research has been on human emotions and the influence of smile on emotional disorders such as depression. More recently he has conducted research on the cognitive and emotional processes of reading human faces.

DANIEL MONTOYA

Department of Psychology, Fayetteville State University, Fayetteville, NC, USA

<http://www.uncfsu.edu/psychology/>

Biopsychology Laboratory, Fayetteville State University, Fayetteville, NC, USA

http://www.uncfsu.edu/psychology/Dept_Web_Pages/Biopac/Biopsychology_Lab.htm

Email: dmontoya@uncfsu.edu

Daniel Montoya, Ph.D., is an Assistant Professor at the Department of Psychology and current Director of the Biopsychology Laboratory in Fayetteville State University. He teaches undergraduate courses in the Biopsychology Concentration and Graduate courses in the Master of Arts in Psychology, Experimental Track. His background includes experience with electrophysiology and behavior in small animals, cats and monkeys and neural networks, with a focus on the physiological bases of learning and memory. Recently, his research has widened to include Cognitive Neuroscience and the possibilities of Embodiment using robotics to model cognitive processing and the interaction between human and robotic agents.

ALISSA BAKER-OGLESBEE

Department of Psychology, Fayetteville State University, Fayetteville, NC, USA

<http://www.uncfsu.edu/psychology/>

Email: abakerog@brncos.uncfsu.edu

Alissa Baker-Oglesbee, is a graduate student at Fayetteville State University finishing her Master of Arts in Experimental Psychology. Her prior research experience includes the study of personality traits associated with acts of academic dishonesty. Her current thesis focuses on the question of whether an adult is able to learn motor tasks from a robot teacher as effectively as when taught by a human teacher. She is making plans to continue her education through pursuit of a PhD in psychology and with the ultimately goal of teaching psychology at the collegiate level.

SAMBIT BHATTACHARYA

Department of Psychology, Fayetteville State University, Fayetteville, NC, USA

<http://www.uncfsu.edu/psychology/>

Email: sbhattac@uncfsu.edu

Sambit Bhattacharya, Ph.D., is an Assistant Professor at the Department of Department of Mathematics and Computer Science in Fayetteville State University. He teaches undergraduate courses in CS1 and CS2 using object oriented programming (Python/Java/C++ or other language); algorithms and data structures; Programming Languages and Operating Systems; Computer Organization and Architecture; Software Tools; Image Processing and Computer Vision. His current research interests include Bio-medical image analysis; bio-computing; computer vision and image processing; Robotics; undergraduate Computer Science education; Computational geometry and Computer Forensics. His research focuses on bioinformatics and robot navigation in indoor environments.

SIMON VAN RYSEWYK

School of Psychology, University of Tasmania, Australia

<http://fcms.its.utas.edu.au/scieng/psychol/index.asp>

Email: spvan@postoffice.utas.edu.au

Simon van Rysewyk is a Ph.D. candidate in the School of Psychology, University of Tasmania, in Australia. He is investigating whether pain facial expressions potentiate approach-motor behaviours during pain observation.

GAVIN BRENT SULLIVAN

Department of Psychology, Leeds Metropolitan University, United Kingdom

<http://www.leedsmet.ac.uk/>

<http://leedsmet.academia.edu/GavinSullivan>

School of Psychology and Psychiatry, Monash University, Australia

<http://monash.academia.edu/GavinSullivan>

Email: gsullivan34@yahoo.com

Gavin Brent Sullivan is an Adjunct Senior Lecturer in the School of Psychology and Psychiatry, Monash University. Currently Dr. Gavin is a Senior Lecturer in the Department of Psychology, Leeds Metropolitan University. He has been an Alexander von Humboldt Research Fellow and a Guest Professor at the Languages of Emotion Cluster of the Free University Berlin. His research focuses on self-conscious, moral, and mixed emotions as well as collective positive emotion and climates of national pride and euphoria.

EDOARDO ZAMUNER

Philosophy Department, School of Communication Arts and Critical Enquiry,

La Trobe University, Bundoora, Australia

<http://www.latrobe.edu.au/humanities/about/staff/profile?uname=EZamuner>

Email: e.zamuner@latrobe.edu.au

Edoardo Zamuner received his doctorate in Philosophy from the University of Edinburgh in 2008. In the same year, he was research associate at the Wellcome Laboratory of Neurobiology of University College London. In 2007, he held an Endeavour Research Fellowship at the philosophy department of the University of Melbourne. In 2006, Zamuner was awarded a Jacobsen Research Fellowship from the Royal Institute of Philosophy. He has been a visiting researcher at the Wittgenstein Archives of the University of Bergen and research fellow at the Centre for Theoretical and Applied Linguistics of the University of Bologna. His research interests include philosophy of mind, with special emphasis on perception and emotion, self-knowledge, and the philosophy of Wittgenstein.

JOÃO LEAL

Facial Emotion Expression Lab (FEELab),
University Fernando Pessoa Health Sciences School, Oporto, Portugal
<http://feelab.ufp.pt>
Email: feelab@ufp.edu.pt

João Leal received his Bachelor's Degree in Psychology from University Fernando Pessoa, Oporto, Portugal, and has been Master's student in Forensic Psychology under the supervision of Prof. Freitas-Magalhães. He has been an internship researcher at Facial Emotion Expression Lab (FEELab/UFPP) where he started his thesis on the recognition of basic facial expressions of emotion in sex offenders within the project "Psychopathy and Emotions in Portugal".

ÉRICO CASTRO

Facial Emotion Expression Lab (FEELab),
University Fernando Pessoa Health Sciences School, Oporto, Portugal
<http://feelab.ufp.pt>
Email: feelab@ufp.edu.pt

Érico Castro is a doctoral student in Psychology of Basic Emotions Recognition, under the supervision of Prof. Freitas-Magalhães, and conducts research, since 2003, in the Facial Emotion Expression Lab (FEELab) at the University Fernando Pessoa. His thesis looks at the effects of alcohol on the processing of emotional facial expression. He is co-author of several research projects, empirical studies, articles, and IT applications and interfaces of facial expression of emotions.

MARK D. DAVIS

Department of Behavioral Sciences, The University of West Alabama, Livingston,
Alabama, USA

<http://facstaff.uwa.edu/mdavis/>

Email: mdavis@uwa.edu

Dr. Mark D. Davis received his Bachelor's Degree in Psychology from Western Washington University in Bellingham, WA, and his Master's in Experimental Psychology and Ph.D. in Social Psychology from New Mexico State University in Las Cruces, NM. He is an Assistant Professor of Psychology and the Department Chair of Behavioral Sciences at the University of West Alabama. His research interests are in intergroup relations, threat, emotions, psychophysiology, and the social aspects of psychostimulant addiction.

STEPHANIE MURRAY

The University of West Alabama, Livingston, Alabama, USA

<http://www.uwa.edu/>

Stephanie Murray is a University of West Alabama senior with a double major in Psychology and English. She is a member of seven academic and service honor societies, and has received creative and critical writing awards from the university. Stephanie is involved in research on social rejection and the internet, and she collaborates in research on Methamphetamine Lab Identification designed to instruct first responders of dangers associated with methamphetamine labs and drug usage. She also researches the effects of stereotype priming on academic performance. She will graduate from UWA in May 2011.

MEETU KHOSLA

Department of Psychology, University of Delhi, Delhi, India

<http://du-in.academia.edu/meetukhosla>

Email: meetukhosla@yahoo.co.in

Meetu Khosla is Associate Professor in Psychology with 15 years of teaching experience. She was Qualified the University Grants Commission (UGC), National Test for Junior Research Fellowship and eligibility for Lecturership (Master's Level), in Psychology, January 1993, and Ph.D. in 2001. Her area of Specialization is Affect, Cognition and Clinical Psychology. Affect and Cognition; M.Phil (1994) Clinical Psychology; M.A. (1991) Clinical Psychology Arts Faculty, Psychology department, University of Delhi, Delhi; B.A (Hons) (1989) Psychology, Jesus & Mary College, University of Delhi, Delhi. Her research interest is to understand the phenomenon of affective processing, to examine the role of affect in promoting, inhibiting and explaining consciousness, to explore the duality of the affect-cognition relationship, the underlying mechanisms predicting cognitive functioning, affective, social and, emotional well-being and quality of life, to examine psychophysiological aspects of affect like mood, memory (recall, recognition, autobiographical), time estimation, comprehension, stress, optimism, coping resources, coping skills, wellbeing, quality of life, post traumatic growth, intrusions, resilience, benefit finding, mood regulation, health, emotional intelligence, positive meaning making, mindfulness and heart rate, skin conductance, blood pressure, EEG measures among non depressed, mildly depressed, induced depressed, PTSD, breast cancer patients, happy and unhappy normal participants, optimists, pessimists.

REBECCA E. READY

Department of Psychology, University of Massachusetts Amherst, Amherst, MA, USA

<http://www.psych.umass.edu/people/rebeccaready/>

The College of Natural Sciences (CNS), University of Massachusetts Amherst, Amherst, MA, USA

<http://www.cns.umass.edu/faculty/directory/rebecca-e-ready>

Email: ready@psych.umass.edu

Rebecca (Becky) Ready, Ph.D., is an Associate Professor in the Department of Psychology and a faculty member of the Neuroscience and Behavior Program at the University of Massachusetts, Amherst. Dr. Ready received her doctorate in clinical psychology from the University of Iowa in 2001. Predoctoral training was funded by a grant from the University of Iowa Center on Aging. Postdoctoral research at Brown University, Department of Psychiatry and Human Behavior was funded by an NRSA from NIH and a postdoctoral fellowship from the University of Pittsburgh, Department of Psychiatry, Late Life Mood Disorders program. Dr. Ready studies the interface between cognition and emotion in normal aging and in older adults suffering from dementia and Mild Cognitive Impairment. She oversees an active research lab at the University of Massachusetts and current studies focus on quality of life in Huntington's disease and how stress might increase risk for Alzheimer's disease. The overall goal of Dr. Ready's research is to understand how emotional experiences and stress change in the context of normal and abnormal aging and to identify means to assess and improve emotional well-being and life quality. Dr. Ready has authored or co-authored over 43 articles and chapters. Her research has been funded by the University of Massachusetts, the CHDI foundation, and the National Institutes of Health.

MATTHEW DAVIDSON

Department of Psychology, University of Massachusetts Amherst, Amherst, MA, USA

<http://www.psych.umass.edu/people/matttdavidson/>

Email: davidson@psych.umass.edu

Matt Davidson received his Ph.D. from the University of Oregon and is currently an Assistant Professor at the University of Massachusetts in Amherst. His research interests include the development of cognitive and emotional abilities in both typical and atypical children. Current projects are investigating the effects of physical activity on the development of these abilities for children and young adults. These studies include assessment of genetic and hormonal factors across development, with an emphasis on identifying the physiological mechanisms that underlie the psychological benefits produced by physical activity. Additional studies use fMRI to assess emotional reactivity in adolescents and young adults before and after exercise. These studies will use exercise intervention protocols to measure these benefits in adolescent females at risk for depression in hopes of developing a more natural therapy for mood disorders, and to further our understanding of the mechanisms that underlie these disorders.

MICHAEL NIZNIKIEWICZ

Department of Psychology, Rutgers University, Newark NJ, USA

<http://psychology.rutgers.edu/neuroscience/Mike.html>

University of Massachusetts Amherst, Amherst, MA, USA

<http://www.umass.edu/>

Michael Niznikiewicz received his B.S. from the University of Massachusetts – Amherst in 2007 and is currently working as a research assistant and lab manager at Rutgers University – Newark. Under the guidance of Dr. Mauricio Delgado, PhD, he is researching the underlying processes behind learning and motivation using fMRI. Specifically, his studies investigate the differences between positive and negative reinforcement, the effect of social closeness on the experience of reward, and the Pavlovian instrumental transfer effect. While each of these projects is distinct, they all utilize fMRI and focus on the neural circuitry associated with reward related processing with the goal of understanding the way this system behaves in healthy adults. In his graduate studies, Michael hopes to study the neural correlates of affective disorders, such as depression, anxiety, and bipolar disorder, within the context of aging and development. His goal is to receive training both as a clinical psychologist and as a neuroscientist, and use neuroscience research to improve therapeutic outcomes for patients afflicted with these disorders.

FLAVIA BLEUEL

Communication and Media Research Department, Berlin University of the Arts, Berlin, Germany

<http://www.gwk.udk-berlin.de/fachgebiete/kommunikationsforschung/personen/bleuel/>

Email: bleuel@udk-berlin.de

Flavia Bleuel studied Media and Communication Science, Psychology and Linguistics at Friedrich-Schiller-University Jena. Since April 2006 she is Research Associate at the Communication and Media Research Department at the Berlin University of the Arts. Here research interests are: emotional and cognitive reception processes and media effects, aesthetic emotions, visual preferences, emotion regulation in media reception, visual stereotypes, online sorting studies/segmentation and online experiments.

MONIKA SUCKFÜLL

Communication and Media Research Department, Berlin University of the Arts, Berlin, Germany

<http://www.gwk.udk-berlin.de/fachgebiete/kommunikationsforschung/personen/suckfuell/>

Email: suckfuell@udk-berlin.de

Dr. Monika Suckfüll studied Psychology. In 1997, she completed her dissertation entitled “Experiencing Film“. In 2004, she published a new approach to differentiate modes of media reception. Since October 2005, she has been the chair of Communication and Media Research at the Berlin University of the Arts. She has written numerous articles on the psychological impact of films and on methodological problems in this field of research.