Emotion, Memory & the Mind

Event Report

7-8 July 2016, Brighton

What we remember, and how we remember it, constitutes the texture of human life. Just as emotions shape our sense of things, including ourselves and other people, so memories shape the sense of who we are and what we have become throughout history. How do memory and emotions contribute to lived experience and identity? Are current approaches across the mind and brain sciences adequate for the task of explaining the complex nature of feelings, sensations, memory and identity? Can we study memory and emotion in other species, are there collective memories, and have our emotional lives changed over time?

Authors

Dr Sofia Bonicalzi

Postdoctoral Researcher in Philosophy at the School of Advanced Study, University of London.

Dr Sofia Bonicalzi is a postdoctoral researcher currently based in the School of Advanced Study at the University of London, where she is part of the team of *The Human Mind Project*. A trained philosopher, and a Honorary Research Associate of the "Action & Body Group" at the Institute of Cognitive Neuroscience (UCL), she works on aspects of human voluntary actions, sense of agency, and responsibility, drawing on methods and insights from the humanities, as well as the psychological and brain sciences.

 sofia.bonicalzi@sas.ac.uk

Dr Jim Parkinson

Postdoctoral Research Fellow at the Sackler Centre for Consciousness Science, University of Sussex.

Dr Jim Parkinson is a psychologist and cognitive neuroscience working in the Sackler Centre for Consciousness Science and School of Psychology at the University of Sussex. His current research interests are focused on the generation of volitional action and self-control, and how these processes, classically considered conscious, might be affected by non-conscious manipulations such as the effects of subliminal emotional stimuli.

 @jimp

This report from *The Human Mind Project* aims to draw out key themes from our event for future discussion and exploration. As well as providing a material resource that allows us to take discussion started at events forward, event reports form part of our Grand Challenges; an attempt to define the major intellectual challenges in understanding the nature and significance of the human mind.

Emotion, Memory & the Mind was a two day workshop jointly hosted by the *The Human Mind Project* and the Sackler Centre for Consciousness Science.

The notes on each talk provide a summary and reflection on key themes, with questions raised in discussion highlighted in the notes on each roundtable.

Table of Contents

Opening Remarks

Anil Seth, Professor of Cognitive & Computational Neuroscience, University of Sussex & Co-Director, Sackler Centre for Consciousness Science

In the laboratory environment, the question of consciousness is reduced to one about how we become aware of things in the external world. Memory and emotions appear to be key elements of a different sense of consciousness, by deeply shaping our experience of *being a self*. Within this realm, the contribution offered by the humanities to our comprehension of what is like to be oneself is fundamental.

How do we remember and what is the role played by emotion in shaping our identity?

The Creative Navigator's Compass: Memory and Perception - and how we know where we are

Nicola Clayton, Professor of Comparative Cognition, University of Cambridge & Clive Wilkins, Artist in Residence, Department of Psychology, University of Cambridge

Nicola Clayton and Clive Wilkins emphasised the way in which memories shape our own sense of personal narrative self, and our idea of what is – or was – real. Memories are the door to identity, the bedrock upon which our selves are built. However, it would be mistaken to assume that they are perfect facsimiles of events in the world. Indeed, the act of remembering is not simply a passive evocation of a past event but an active process of reconstruction, often influenced by the self. A paradigmatic example comes from a classic work by Frederic Bartlett[1], in which participants were asked to read and later remember a Native American folk tale "The War of the Ghosts". Surprisingly, in the act of remembering, individuals' memories of the details of the tale were distorted, and some aspects were omitted or emphasised in order to fit cultural expectations.

How does our subjective 'self' affect our memories, and how does our sense of self rely on our memories?

As Clayton and Wilkins argue, we all have the subjective experience of our self as rooted in personal life-experiences, which for us are now memories. In turn, the self – our personalities, subjective perspectives, and transient emotional states – might be responsible for the distortions and filters that we apply to memories. Such a process is likely to be a sort of feedback loop: experiences generate memories, which mould the self. Further, as shown by the subjective distortion of memories, the self can go on to mould the memories we retain. As a result, the self not only reconstructs or filters existing memories, but also acts on the formation of future memories.

How to capture the complex relationship between memory, identity and time?

Clayton and Wilkins argue that, similarly to perception, memories are not mirror images of reality. Like perception, memory is deeply illusory and constantly shifting (see Wilkins's novel in four parts, *The Moustachio Quartet*[2]). Think about the visual experience of seeing two individuals dancing the tango. A minute later, we do not remember what happened in reality: what we remember becomes what happened. In this way, memory shapes what we are. In turn, everyone's memories are filtered through one's personal, unique perspective, and shaped by one's subjectivity, momentary mood, and idiosyncrasy. In the midst of all the

[1] Bartlett, F. C. (1920). Some experiments on the reproduction of folk stories'. Folk-Lore, 31, 30-47.
[2] Wilkins, Clive (2014). *The Moustachio Quartet* Caruso Maelstrom, Wind on the Wire Press.

shared experiences, we build our personal reality, forged by the reconstructive nature of memory[3]. This calls into question the authenticity of memory, and the very same belief in the existence of an external material world. What is real? What is imagined? How are the thoughts of the past transformed through time? Despite the emphasis on objectivity and accuracy, experiences are ineludibly subjective. People have a propensity for massively missing what is there. As cognitive neuroscience has shown, memory differs from an analytic repository of perceived images. It supports the ability to conjecture and to anticipate alternative scenarios, allows creative thinking and mental time travel, enables individuals to juggle multiple perspectives simultaneously, and is involved in problem solving and creativity.

How might memories and emotions guide future actions – are we trapped in an (eternally) present self?

Memories may not be just a repository of the past, but a platform from which we can project the self into the future, consider counterfactuals and conjecture about future paths. In this way memories provide the bedrock for our ability to plan and make goals for the future. But there is even more: Clayton and Wilkins argue that, as humans, we are sometimes adversely affected by our subjective existence in the present; we might make mistaken plans for the future based on our present motivational state. Indeed, psychology and neuroscience have shown that current desires not only influence our present choices, but also our decisions for the future, by determining what we think we will want or strive for.

Clayton provided evidence that some non-human animals are less prone to mistakes of this sort. Although they are able to remember and make plans, they use a different system for evaluating the future, taking their present self out of the equation. Western Scrub-Jays, for example, appear capable of planning for the future independently of current motivational states[4].

Optical illusions and false memories

An interesting aspect of optical illusions is that they force the brain to believe that a certain perceptual phenomenon might be wrong. By playing with what we see and what we know (consider the *Stroop effect*), optical illusions lead everyone to commit exactly the same mistakes, pointing to universal, shared features of the human mind. Given their systematicity, such mistakes might cast light on cognitive processes and the limitations of episodic cognition and perception. In daily life, we are biased by what we expect to see, and we remember things falsely. An example is offered by Jimmy G. ("The lost mariner"), one of the patients whose story is portrayed by Oliver Sacks in *The Man Who Mistook His Wife for a Hat*[5]. Stuck in a never-ending past, Jimmy permanently believes he is 19 years old. Sacks reported Jimmy's grief when he sees himself in the mirror, facing an old body that could not be his own. Differently from amnesiacs, healthy people regularly use imagination to reconstruct things. Their memories are flexible and malleable. For example, when asked to report the correct boundaries of a picture, we are often unable to remember the picture we actually saw. Typically, we tend to think we saw more than what was actually there – a visual illusion known as *boundary extension*[6]. This constitutes evidence both of the illusory nature of perception and memory, and of their crucial role for imagination and creativity.

---

[3] Bartlett, Frederic C., and Sir Walter Kintsch C. B. E. M. A. F.R.S. (1995) *Remembering: A Study in Experimental and Social Psychology*. 2 edition. Cambridge; New York: Cambridge University Press

[4] Correia, S. P., Dickinson, A., & Clayton, N. S. (2007). Western scrub-jays anticipate future needs independently of their current motivational state. Curr Biol, 17(10), 856-861. doi:10.1016/j.cub.2007.03.063

[5] Sacks, Oliver (2014) *The Man Who Mistook His Wife for a Hat*: Picador Classic. Pan Macmillan

[6] Intraub, H., Gottesman, C. V., & Bills, A. J. (1998). Effects of perceiving and imagining scenes on memory for pictures. *J Exp Psychol Learn Mem Cogn*, 24(1), 186-201.

Autobiographical Memory and the Self

Catherine Loveday, Principal Lecturer in Psychology, University of Westminster

Catherine Loveday's talk emphasised the way in which our sense of personal or narrative self is rooted in autobiographical memory, the explicit form of memory describing events in one's own life-narrative. Encompassing knowledge about external events and about one's own subjective experience, autobiographical memory is an essential foundation of the personal self, informing our identity across the lifespan.

A powerful demonstration of this involves the simple completion of the phrase "I am …", leading one to define one's personal roles in life[7]. These roles, such as "father", "academic", can clearly be seen as foundational bricks of the narrative self. If prompted, people evoke rich memories that represent specific experiences of these roles in life – such as the first time one held ones' child, or a particularly successful event in one's work life. This demonstrates the degree to which the narrative self is built on strong memories of important life-events. Indeed, autobiographical memory is a complex phenomenon, consisting both of the sum of episodic details about one's own experience, and of a general knowledge of oneself, operating as an encompassing framework. Such a tool is essential to human functioning, sense of identity, and personal narrative, enabling people to set interpersonal goals, and to deal with the social world.

Autobiographical memory and storytelling

Autobiographical memories are unequally distributed over the lifespan. Memories contributing to our sense of self and identity tend inevitably to be very defining moments, whose interrelation is meant to provide a coherent narrative. Typically, to give a definition of ourselves, we resort to the first defining memories we may pick (the birth of a child, the first day of work) or to the most powerful ones ("once I played Hamlet, I became an actor").

A fascinating example of how memories support and define the self can be seen when studying the "lifespan retrieval curve"[8]. This involves studying the autobiographical memories of adults by using, for example, a form of the "I am…" cueing method above. From what ages in one's life do more or less of one's autobiographical memories come from? Psychologists are able to investigate the distribution in time of these memories. As one might expect, there is a period of "childhood amnesia" prior to 5 years, and a usual tendency for a recency effect (the number of recent memories we retain is consistently larger than the number of older ones).

Another strong and intriguing phenomenon is the "reminiscence bump"[9] : there is an increased tendency for people to recall more autobiographical memories from adolescence and early adulthood (approx. 10 - 30 years). A number of theories have been posited to account for this, including an intriguing one that emphasises narrative and self-formation. It is argued that as adolescence and early adulthood are particularly crucial for certain forms of self formation, memories generated in this time are more fully rehearsed and elaborated. The foundational experiences of these years - in family, friendships, work, romance etc. – are made integral to the personal self through memory. Catherine Loveday discusses the way in which specific

[7] Rathbone, C. J., Moulin, C. J., & Conway, M. A. (2008). Self-centered memories: the reminiscence bump and the self. Mem Cognit, 36(8), 1403-1414. doi:10.3758/MC.36.8.1403

[8] Rathbone, C. J., Moulin, C. J., & Conway, M. A. (2008). Self-centered memories: the reminiscence bump and the self. Mem Cognit, 36(8), 1403-1414. doi:10.3758/MC.36.8.1403

[9] Rubin, D. C., Wetzler, S. E., & Nebes, R. D. (1986). Autobiographical memory across the lifespan. In D. C. Rubin (Ed.), Autobiographical memory (pp. 202-221). Cambridge: Cambridge University Press.

cues unveil individual autobiographical memories. Music, for example, has a powerful ability to reawaken past memories.

What happens when autobiographical memories are disrupted?

What would it be like to lose our autobiographical memories? The things that made us the persons we are simply would have gone. But memory loss is such a complex phenomenon that amnesiac patients differ significantly from one another. This is why research about single-case studies remains highly informative. How might disruptions of memory affect not only our past, but also our present and future selves?

Loveday emphasised the role of studying individuals with disruptions of memory, especially in terms of understanding the heterogeneous nature of amnesia and how it can have very different impacts on the self in different patients. Consider the famous example of Clive Wearing, a renowned musician and musicologist at the BBC who, due to encephalitis, suffered profound retrograde and anterograde amnesia in 1985. Wearing can no longer remember anything prior to his illness, nor form new memories. This means his ongoing sense of a conscious self is severely disrupted, and he is constantly experiencing "waking up" every 20 seconds. Nevertheless, Mr Wearing can still play piano and has distinct – and sometimes uncontrollable – emotional responses to his music. His case helps scientists to understand how we might know defining aspects of ourselves, without storing any specific memory of them.

Loveday also described the process of working with Claire C., in collaboration with neuropsychologist Martin Conway and filmmaker Shona Illingworth. An amnesic patient showing little recollective experience, Claire knows who she is, but has lost her ability to recognise herself, suffering also from prosopagnosia. In her account of her work with Claire, Loveday describes Claire's grainy memories of her past. Whilst she does retain her sense of personal identity, she describes the past as cut-off from her, whereas the future is frightening: because she lacks memories of the past, there is little for her to use in order for her to project herself into the future. Imagination, mind-wandering and daydreaming are lost to her. Claire also shows a characteristic lack of ownership of her own memories, which appear to be less flexible and malleable than healthy people's ones. As shown by the examples, memories are not just a window into the past, but can define the present self and our sense of the future.

A conversation with Nick Payne & Anil Seth: On Memory & Self

Nick Payne, Playwright & Anil Seth, Professor of Cognitive & Computational Neuroscience, University of Sussex & Co-Director, Sackler Centre for Consciousness Science

Nick Payne's trilogy of plays, *Constellations, Incognito*, and, most recently, *Elegy* are in part inspired by deep scientific and philosophical questions, such as the notion of infinite parallel universes, quantum physics, free will and determinism, and recently, amnesia, memory, and how the self is created. In his work, Payne explores the potentialities and the limits of the interplay between science and the humanities. His conversation with Anil Seth demonstrated the potentiality for collaboration between artistic and scientific explorations of memory loss, as well as the ability of theatre to explore and mimic the functioning of the brain. There is a sense in which the self seems to be infinite: if we consider memories as its building blocks, we can then launch the self into the future, considering all the possibilities of what we could, or could not, do. This evokes the philosophical (and scientific) concept of "free will": a consideration of a possible action and that "one could do otherwise".

What constitutes the self? How fragile is it?

Payne and Seth raised the question as to whether the self is a continual work of fiction: is the brain a story-telling machine, and is the self its continuous tale, with the brain continuously telling, retelling and editing stories (memories) in different ways?

What if several versions of me could co-exist simultaneously in different areas of the multiverse? Could faith, or love, just reside somewhere in the brain? Is there anything like a soul pilot, or do different mental processes underlying the self come together just in fictional terms? Is there anything more to the self than the capacity to tell stories?

Memory and creativity

Payne and Seth compared this conception of the self to art and drama specifically: a play provides its audience with a holistic and continuous present tense experience, continuously changing, full of fabrication and confabulation.

Does the analyticity of the scientific method have anything to do with the process of drafting and re-drafting a play? In the age of science, what space is left for other forms of knowledge? In our attempt to decipher the inner and the external world, can we limit ourselves to one form of knowing? Providing a sort of vicarious experience, theatre allows the audience to get out from its habitual perspective, directly facing questions that lie at the border of science, ethics and emotional life. What sort of issues would remain unanswered if the mysteries of the brain were unveiled? Are scientists ignoring deep ethical issues? What if, as it happens in *Elegy*, parts of the brain storing specific fragments of one's own life can be replaced with artificial circuits carrying out the same operations and encoding new episodic memories? What is identity if we become the persons we never wanted to?

Roundtable on Memory

How is episodic memory represented in the brain? Is it based on action, is it symbolic, or is it always mediated by language? In other words, is memory to be understood as a series of stored pictures, with language as only a secondary medium? Or are memories even more symbolic than pictures? Is memory rather to be understood as a distributed pattern of synchronous activity?

To what degree is the self based upon a constantly evolving tableau of memories?

We quickly forget things that happen to us. Memories suddenly become very generic boxes. Why does the brain retain only some pieces of information? Remembering meaningless things appears to be incredibly difficult, but how does the brain select the relevant bits?

If the self is constructed by the stories we tell to ourselves, what else is left beyond narrative? How is such a narrative integrated with our sense of being, agency, and volition?

What is the role of sleep and dreaming in relation to memory? Some theories from the predictive coding stance in cognitive neuroscience suggest that dreaming is a "safe" way for the brain to test and refine its internal models and predictions of the world.

Body Memory and Affectivity

Giovanna Colombetti, Associate Professor of Philosophy, University of Exeter

Giovanna Columbetti's talk drew on phenomenological perspectives and emphasised the embodied nature of emotions. Introducing us to the '4 Es' of cognition, she argued that the mind is embodied, embedded, enactive and extended. She emphasised that we need to combine subjective experiences and phenomenological intuitions with psychology and cognitive neuroscience.

Cognition is not all in the head

Are we simply biological entities? What is the relation between body, cognition, and affectivity? Arguing against traditional cognitivism, 4E Cognition supports the view that cognition works in a dynamic relationship with the body and the environment. Colombetti's work aims at bridging the gap between cognition and affectivity, applying to the latter the same sort of categories that philosophy of (cognitive) science applies to the former.

Could affectivity also be embodied, embedded, enactive, extended? Under the assumption that both cognition and affectivity have physical bases and are supported by bodily processes, what does it mean to localise them? Within this realm, how could theoretical reasoning and the scientific enterprise be mutually beneficial?

Colombetti recovers Merleau-Ponty's notion of body memory[10], according to which memory is implicitly present in bodily scheme and action, combining it with Bergson's[11] distinction between *souvenir image* (an imaginistic form of memory) and *memoire d'habitude* (the act of remembering via repetition). In opposition to Descartes's mind-body dualism, Merleau-Ponty defends the notion of a habitual body, in which our memories are engrained. Reinterpreting Descartes's famous saying in Merleau-ponty's spirit: *I am a bodily being. I can*.

We are essentially possibilities of action and we cannot doubt the experience of ourselves as having the capacity to move in the world. In this sense, the body that I am is not just a thing, a physical object (*Körper*), but a subject of experience, a locus of subjectivity (*Leib*). Memories become engrained in the body through habituation. We acquire bodily and motor skills, and perform actions spontaneously and pre-reflectively. Our habitual actions become the ways in which the world opens up to us. As in a sort of continuous object incorporation (another Merleau-Pontian concept), the body is an ever-changing entity that also continuously modifies itself in relation to the lived world. As an example, consider learning to rock climb: as the body accumulates new motor skills for climbing, the way in which one is open to bodily interaction with the world is changed. One starts to look at different surfaces in the environment in terms of how one would climb them.

It is in this sense that memories are engrained in the body itself: a child learns a musical instrument slowly at first, until the skills for playing individual notes, then chords, passages, whole pieces, are imbued with expressivity and incorporated into the body and repertoire of motor skills. This can be understood as the *sedimentation* of bodily skills, in which memories become layered accumulations of the body's past.

[10] Merleau-Ponty, Maurice (2013) *Phenomenology of Perception*. Routledge

[11] Bergson, Henri, Nancy Margaret Paul, and W. Scott Palmer (2004) *Matter and Memory*. Courier Corporation

Interestingly, many of these acquired bodily skills are subsequently performed pre-reflectively, without a large degree of conscious thought or analysis.

What is the connection between body memory and affectivity?

Affectivity can be understood as the capacity to be affected, as the lack of indifference to the external world: an affective being displays a characteristic capacity to care. Human beings may show a variety of affective states. In particular, philosophy distinguishes between emotions (about specific objects), moods (feeling states), and motivational states.

The relation between affective states and body memory is multi-faceted. Objects can be affectively incorporated in the habitual body. And it is with our body that we learn – through time, culture, and mimicry – to express emotions. Our body can also retain specific memories of traumatic events, which affect how we experience the world and our possibilities of action.

Body memory and the world

Colombetti describes emotions and affective states as embodied responses, representing the capacity to be affected by the external world. The skills for firstly being open to affectivity/emotion, and secondly expressing emotion and acting towards the world are learned in the body.

In other words, the body is thus not just a tool for communicating emotions, but also a way of interacting with the world in an affective way. One might not just look and speak in a happy, sad or angry manner as a way of communicating those emotions to others, but also perform goal-oriented actions in a happy, sad or angry way, as a system to achieve those goals in a different manner, or towards a different outcome.

Body memory can also be normative: over the course of our lives we accumulate body memories or habits which are engrained by more or less explicit rules present in our social environment, via encouragement, engagement, or scolding. Mimicry of others can also be implicated in the production of body memory – especially in the social normative realm, since we often mimic (consciously or not) the actions and mannerisms of those we wish to affiliate with.

A neuroscience of phenomenology?

A final striking question for the study of mind and consciousness in a cognitive neuroscience arena is how best to scientifically study phenomenological reports. How should we link phenomenological reports to neuroscientific measurements?

Anatomizing the Emotions: The Human Mind in History

Thomas Dixon, Reader in History, Queen Mary University of London; Director, Centre for the History of the Emotions

Thomas Dixon is a historian – or, better, an anatomist – of living and lost emotions. A history of emotions, of human feelings throughout the centuries, is primarily a history of psychological categories. His work is an attempt to break emotions down into their constituent parts, both historically and in the present. The historical perspective is emphasised in Dixon's research demonstrating that a culture's conception of emotional life changes over time.

People started talking about emotions only recently. The term *emotion* appears in common speech only after the first half of the XIX century. The previous psychological terminology for defining affective states ranged

from *appetites* to *passions* and *affections*. The invention of emotions is credited to philosophers and scientists like Spencer and Darwin. And, like concepts, emotions change over time. According to historian Lucien Febvre, the science of contemporary psychology has no genuine applications to the past, and contemporary psychological concepts cannot be used for interpreting our ancestors' feelings and mentality[12]. Indeed, the way in which we feel emotions today has little in common, for example, with how people perceived themselves in the middle ages.

How do we define emotions, and what do those definitions mean?

At the extreme of the historical perspective, entire categories of emotions (or affects or motivations or passions) that once existed do so no longer. It is not just that the content of emotions that change, but that their actual embodied production can change within cultures over time.

Are emotions natural kinds or are they artificially "created" as concepts are? Indeed, at least in conceptual terms, *altruism* seems not to exist before Auguste Comte's *religion of humanity*[13]: are we born selfish and do we learn generosity later in time[14], or is altruism a natural, *blessed misfiring*[15]? How could science treat emotions without becoming moralist (see Darwin's claim that "the virtue will be triumphant"[16])? How does our *affective style* change over time (from Darwin's assumption that "Englishmen rarely cry"[17] to Dixons' *Weeping Britannia*[18]). How does the style change what we actually perceive? What is cross-cultural and what is not?

How does the public sphere engage with emotions?

Consider the usage of anger in politics: what are the implications of the public attempts to control and guide emotions[19]? What is constant – from Aristotle's first reference to *political* anger[20] to Darwin's distinction between *animal* and *moral* anger[21] – and what changes in the way in which humans experience shared affective states?

Can the scientific study of emotions benefit from a historical perspective?

Dixon's perspective cautions against neuroscientific reductionism regarding emotions. This speaks to the study of emotions with respect to consciousness and first person experience. Dixon suggests that the reduction of emotions to stereotyped categories - consider classic work in the 1970s and beyond such as Paul Ekman's[22] emotional faces - may not always be sensible.

In considering the question "what is anger?", Dixon asks if anger is a coherent emotional entity or multi-faceted. What does it mean for a person to be in anger? How do other people react to individual expressions

---

[12] Febvre, Lucien (1941) "La Sensibilité et L'histoire: Comment Reconstituer La Vie Affective D'autrefois?" *Annales D'histoire Sociale (1939-1941)* 3, no. 1/2 : 5–20.
[13] Dixon, Thomas (2008) *The Invention of Altruism: Making Moral Meanings in Victorian Britain*. OUP/British Academy, 2008.
[14] Dawkins, Richard (1989) *The Selfish Gene*. Oxford University Press.
[15] Dawkins, Richard (2016) *The God Delusion. 10th Anniversary Edition*. Random House, 2016
[16] Darwin, Charles (1981) *The Descent of Man*. D. Appleton and Company
[17] Darwin, Charles (1872) *The Expression of the Emotions in Man and Animals*. Impression anastalitique Culture et Civilisation
[18] Dixon, Thomas (2015) *Weeping Britannia: Portrait of a Nation in Tears*. Oxford University Press
[19] Stearns, Carol Zisowitz, and Peter N. Stearns (1989) *Anger: The Struggle for Emotional Control in America's History*. University of Chicago Press
[20] Aristotle (2010) *Rhetoric*. Cosimo, Inc.
[21] Darwin, Charles (2010) "A Biographical Sketch of an Infant." *Annals of Neurosciences* 17, no. 4: 187–90.
[22] Ekman, P. (1992). *Are there basic emotions?* Psychological Review, 99(3), 550-553.

of anger? The experience of anger may imply further moral implications for the person – that is, how do I feel about feeling this way? Do we, as humans, experience Darwin's *animal anger*, and does this lead to conscious, first-person assessment of whether that feeling was moral?

Mass Observing Emotion in Post-War Britain

Claire Langhamer, Professor of Modern British History, University of Sussex

Claire Langhamer gave us a historical perspective of self-understanding, in terms of memory and emotion, using primary historical sources. She described the British Mass Observation study system, a vast archive of interviews, media, and first person reports (such as diaries) that set out to ascertain the self-image of Britain following the Second World War. Set up by a group of people led by Charles Madge, Tom Harrison and Humphrey Jennings, Mass Observation was meant to promote a "science of ourselves", or a photograph of contemporary life, through the contribution of a huge panel of volunteers.

Can emotions become a category of historical analysis?

By using direct questionnaires, Mass Observation included for example questions about emotion in the workplace; the impact of work on the emotional wellbeing; people's feelings about the atomic bomb and the death penalty. Does Mass Observation work as a reliable source for the historian? Given the subjectivity and the plasticity of emotions and of emotional codes, can the historian draw general conclusions from single cases? Is it legitimate to interpret emotions as a proxy for thoughts?

The emotional nature of Mass Observation resided in the fact that the focus was not on what society looked like, but on how it was subjectively perceived. How could the historian interpret the subjective expression of individual feelings in order to say something about a particular historical moment? This appears to be particularly relevant in reference to post-war Britain and to an age in which, in the attempt to reconstruct Britain, attention to public emotion was extended. In the mobilisation of emotional experience following the Second World War, so well captured by contemporary movies (*A diary for Timothy*, *The captive heart*, *A matter of life and death*, *The way to the stars*), and in the collapse between personal and social boundaries, we find here the roots of contemporary usage in psychology, and in political theorising.

How do "ordinary people" narrate their own lives, describe their own sense of selves, and categorise and live with their own emotions?

Academics, both in the humanities but certainly in the sciences, may be in danger of studying emotion and memory in too reductionist a manner. Can we, studying the human mind, gain valuable clues and insights from everyday narratives and "folk psychology" as to exactly which questions we should be asking, and how to ask them?

Emotional politics

One intriguing point Langhamer made was with regards to the use of emotion to support knowledge (or at the very least, the communication of an emotion as a way to support one's assertion in the absence of concrete evidence). We are all familiar with public figures asserting that something is so because *they feel it to be so*, even to the point that their emotional feeling about the point trumps the objective facts. This might beg the question as to the exact emotional (and indeed physiological) accompaniments to confidence in a judgement (misplaced or otherwise). Is the politicians' appeal to *feeling this is right* truly an emotional response? In the lab, is confidence in a particular judgement accompanied by a measurable affective reaction?

Roundtable on Emotion

What is an emotion?

This is a simple question with far-reaching consequences. Giovanna Colombetti said we need to distinguish between emotions *now*, as an immediate subjective embodied state, as distinct from long term emotions – or perhaps emotional memories. Thomas Dixon suggested that an emotion is an embodied representation about the world, citing Darwin's idea (also present in current psychology) that one cannot experience an emotion without some form of bodily response, but also that emotions are *about* the world, which is what distinguishes them from sensations. They are a shorthand for whether the state of the world is or isn't how I want it to be. Claire Langhamer maintains that her interest is less in defining emotions as such – perhaps in an objective sense – but more in what, historically and within society, an emotion such as love actually meant to the people experiencing it. Shamil Chandaria emphasised the distinction between mood and emotion (the latter being more about something) and suggested that an emotion alters the dispositional nature of the actions one might perform (for example, performing an action in anger, or whilst happy) fundamentally changing the actual motor output of the action, or indeed the likelihood of actually performing one action or another.

Is there such a thing as a neutral emotion?

Dixon suggests all emotions are valenced and evaluative. However, Colombetti suggests that indifference may be a form of valenced affective state. Langhamer points out that a neutral position is a power-claim, and that a "neutral" position implies the possession of more knowledge.

Can one live without emotion?

Dixon described the Stoic method of separating oneself from emotion. Is mindfulness a (less extreme) form of this, a way of becoming detached from emotions? Chandaria describes meditation as becoming more deeply attuned to the bodily sensations linked to the emotion, and breaking the feedback loop between bodily sensations and reacting to them.

Emotional capitalism: how has modern culture affected emotions?

One audience member raised the issue of emotional capitalism in society, whereby over the last half century or so, emotion has become a commodity in politics and economics, whereas emotional social relationships between people have become increasingly invested with questions of equity and bargaining. Langhamer points out that we have reached a situation in the last 50 years where a person's argument might be considered stronger if it comes from a position of "authentic" emotion – speaking to conscience – rather than detached objectivity, especially in the political sphere. Langhamer raised an interesting point whereby culturally there might be a "hierarchy of emotional actors", in that more import is attached to the person in a debate who is seen to be more "emotionally authentic".

Open Roundtable on the Future of Research

Chaired by Colin Blakemore, Professor of Neuroscience and Philosophy & Project Leader, *The Human Mind Project*

What is an emotion? Can emotions be localised in the brain? How could we distinguish between different affective states (emotional episodes, dispositions, feelings, moods)? Do emotions always involve sorts of *bodily agitations*, to use Darwin's own words? Is the bodily component what distinguishes emotions from

thoughts? What (if anything) does come first, the bodily movement or the subjective feeling? Can beliefs precede action? Do single emotions always imply a sort of Dennett's *intentional stance* towards something? What is the causal sequence between the subjective experience of an emotion and the bodily response? Or is such distinction only artificial because beliefs, potentially triggering an emotional response, are themselves embodied?

How do we integrate humanities and sciences? Are these approaches ultimately compatible or not? In his book on the philosopher Baruch Spinoza[23], Damasio reports the case of a Parkinson's patient who, after being treated with deep brain stimulation, developed depression, due to a misplacement of electrodes in the brain. Such a depressive mood immediately went away once the current was switched off. Does this suggest that emotion is "just" a brain response? To what extent might it be valuable to find a correlation between such a scientific framework and what we learn from the humanities? Is it really useful to squeeze those paradigms in equivalent psychological categories? And how can interdisciplinary approach benefit both science and the humanities, without the latter surrendering to the former? How valuable is it to try and find correlations between, on the one hand, cultural and historical aspects of emotion, and on the other, what neuroscience understands about emotion?

What does change through time? Emotions or the language we use to express them? How do different interpretations of our emotional states arise from the same biological roots? To what extent are emotions culturally informed? Is it legitimate to employ ancient words (e.g. "free will"), to interpret the results of (neuro)scientific experiments? Are we talking about the same issues? Can scientific knowledge influence and change the content of our conceptual categories?

Do different subjective qualities of emotions arise depending on the sophistication of the cognitive appraisal and the degree of possible freedom the individual has in a given situation? For example, if a poor outcome arises from a choice, there is a qualitative distinction between the emotions of "disappointment" and "regret"? – the latter having a quality of "I could have done otherwise", an implication of freedom of choice, and perhaps a stronger motivation on future situations.

Are the emotional reactions to a given situation fundamentally different from sensory *qualia*? When you see a fearful face, what is its intrinsic difference with respect to other visual *qualia*?

In investigating emotional experiences, could we give more space to the variety of subjective reports without sacrificing scientific rigour, repeatability and statistical significance?

[23] Damasio, Antonio R. (2004) *Looking for Spinoza: Joy, Sorrow, and the Feeling Brain*. Vintage Books