Rob Boddice

Emotions and the New History of Experience

Transdisciplinary Implications of a Biocultural Consensus

Abstract: Across the disciplines, from anthropology, sociology, and history to primatology, social psychology, transcultural psychiatry, social neuroscience, and neurophilosophy, there is a growing consensus among researchers of emotions and senses that biology and culture are dynamically related and entangled in the production of meaningful human experience. There is broad agreement about the importance of situated conceptual development, social structure, and material culture and there are emerging signs of collaborative research being undertaken to capitalize on this consensus. However, a number of obstacles remain. This article envisions a role for historical research as a stakeholder and wayfinder in a transdisciplinary space that transcends emotion research.

Keywords: transdisciplinarity, bioculture, experience, predictive processing, enactivism

Across the disciplines, from anthropology, sociology, and history to primatology, social psychology, transcultural psychiatry, social neuroscience, and neurophilosophy, there is a growing consensus among researchers of emotions and senses that biology and culture are dynamically related and entangled in the production of meaningful human experience. The nature/nurture dyad has collapsed in favour of enactivism (cognition explained as the product of the dynamic relation of brain-body and environment), predictive processing, brain-body plasticities, and a novel form of constructivism that understands body-minds and worlds as mutually, if unstably,

DOI: https://doi.org/10.25365/oezg-2026-37-1-3

Accepted for publication after external peer review (double blind)

Rob Boddice, Helsinki Collegium for Advanced Studies, University of Helsinki, Fabianinkatu 24, 00100 Helsinki, Finland; robert.boddice@helsinki.fi

co-constituted.[1] There is broad agreement about the importance of situated conceptual development, social structure, and material culture, and there are emerging signs of collaborative research being undertaken to capitalize on this consensus. This article has three aims: 1. to survey the interdisciplinary landscape to connect its common theoretical foundations; 2. to introduce the collaborative work that is already underway; 3. to consider some of the remaining obstacles – siloed knowledge-production, closed disciplinary logics, and a general discipline-based intractability – to the realization of a more substantial transdisciplinary research endeavour. Looking forward, I envision historical research playing a role as both a stakeholder and wayfinder in a transdisciplinary space that transcends emotion research.

1. Biocultural approaches across the disciplines

I begin with a recent letter to *Science* magazine by Princeton biological anthropologist and primatologist Augustín Fuentes, in which he pointedly asks whether "the sciences" are "prepared to tackle […] contemporary human experience", defined by a hopeless entanglement of technology, biology, and society. The letter is critical in its appraisal of the 'hard' sciences' capacity to adopt and operationalize biocultural theory and method – in play in anthropology since the 1960s. However, its author makes it clear just how important the biocultural agenda should be across the disciplines, especially with respect to research on the social determinants of illness and disease, health and well-being. The barriers to pursuing this agenda are, in his estimation, partly structural, partly political, and partly conceptual but, he argues, since "humans are biocultural – our science should be too".[2]

I agree with Fuentes, but what implications does this biocultural understanding have for emotion research? Here, I thread together what I read as an encouraging consensus on this topic, despite the presence of opponents and barriers across the disciplines. I will build towards situating the history of emotions within this consensual picture, not merely borrowing theories and methods from other disciplines, but

1 The notes here supply an inexhaustive list of references to this point of view. The following are indicative: Giovanna Colombetti/Evan Thompson, The Feeling Body. Toward an Enactive Approach to Emotion, in: Willis Overton/Ulrich Mueller/Judith Newman (eds.), Developmental Perspectives on Embodiment and Consciousness, New York 2008, 45–68; Jan Slaby, Emotions and the Extended Mind, in: Mikko Salmela/Christian von Scheve (eds.), Collective Emotions. Perspectives from Psychology, Philosophy and Sociology, Oxford 2014, 32–46; Rob Boddice/Mark Smith, Emotion, Sense, Experience, Cambridge 2020; Thomas Fuchs, Ecology of the Brain. The Phenomenology and Biology of the Embodied Mind, Oxford 2018.

2 Agustín Fuentes, Humans are Biocultural, Science Should be Too, in: Science 382/6672 (2023), doi: 10.1126/science.adl1517.

contributing as a major stakeholder and knowledge producer in the future of emotion research in a transdisciplinary space. However, it should be clear from the outset that 'emotions' only form part of the picture here. I maintain that a narrow focus on emotions, in any discipline, has the effect of reifying that category according to an essentialized biology and/or psychology. A better approach is to locate emotion research within the entangled fabric of human meaning-making, which includes all kinds of feelings and perceptions, as well as thought, knowledge, belief, bodily practices, and the dynamic relationships between all these things and the material and cultural worlds in which they are situated.[3]

Fuentes' definition of bioculture is on point, so I will begin with that. It establishes, in broad strokes, the ecological and experiential dynamics that I want to highlight:

> "Seeing human bodies as quantifiable features that can be measured separately from human cultural and technological experiences is erroneous; and seeing cultural dynamics and human engagements with technology as disentangled from biological form is misguided. Humans are born into a world of social and physical ecologies, patterns, institutions, and ideologies that become inextricably entangled with our biology, even before we leave the womb […] The biocultural approach […] views biology and culture as dialectically and intimately intertwined, explicitly emphasizing the dynamic processes of interaction between the physical entity of humans and their social, cultural, technological, and physical environments."[4]

Across the disciplines, scholars readily mistake this emphasis on dynamic interaction – the aspect that allows for instability, plasticity, and change – as essentially a social constructionist statement. There are good reasons for this belief, not least because certain prominent social neuroscientists frequently reference social construction.[5] But I want to stress from the outset that I am not trying to promote social constructionism or revivify a zero-sum debate between universalists and constructionists.[6] Insofar as my approach is constructionist, it is *bio*constructionist, with a commitment, as Fuentes states, to human experience as irreducible to biology *or* culture alone. The term he uses, "entanglement", seems apt to me. However, I want to emphasize that there are no distinct threads here. This is not about finding ways

3 Boddice/Smith, Emotion, 2020; with elaboration in Rob Boddice, The History of Emotions, 2nd edn., Manchester 2024, esp. 150–186.

4 Fuentes, Humans are Biocultural, 2023.

5 Lisa Feldman Barrett is wont to cite John R. Searle, Social Construction of Reality, New York 2005. Her theory of constructed emotions relies heavily on the language of constructionism, even if it departs *bodily* from its essence.

6 The debate is meaningfully over, the retrenchment of the universalists and the outlying hard-line social constructionists notwithstanding.

to disentangle this biocultural entity into its components. Rather, it is about resisting any notion of space between biology and culture, or any notion of separable components. Bioculture is a single word, a unitary concept, no spaces.

As Fuentes points out, some anthropologists have been in this space for a long time already, and I would argue that both psychology and physiology began in this place in the mid-nineteenth century, subsequently losing the cultural node of bioculture for many decades.[7] I emphasize these things because it might otherwise seem that I am going to place neuroscientific developments at the core of my argument here, but many disciplines have, it seems to me, arrived at similar views almost independently. It is important to my idea of a biocultural consensus that it does not have a central or master discipline. Historians do not all need to line up behind the neuroscientists. If anything, they can contribute to critical neuroscience, which I think a productive means of testing core disciplinary assumptions against a diversity of expertise. A dozen years ago, in a book of that title, Suparna Choudhury noted that "it is not clear how neural processes manage to realize subjective experience nor is there consensus about the relationship between neural processes and cognitive, social, and emotional capacities captured in their full complexity". She asked "whether these philosophical conundrums are at all sensible questions to ask of a science of the nervous system", suggesting expecting a scientific solution to the "big riddle of humanity" was part of the problem.[8]

I think the field has advanced considerably in many respects. It is not so much that such complexities have now been captured, but that many different disciplines, including neuroscience itself, have acknowledged that questions concerning the riddle of humanity cannot be answered by any single discipline. The realization that there *is* a relationship between neural processes and the social is, in itself, significant, for it invites talk of radical collaboration, even if realizing that collaboration remains difficult. Take, for example, a statement emanating from the world of social neuroscience, by Katie Hoemann, Madeleine Devlin, and Lisa Feldman Barrett, that the brain, aggregating experience as it develops, "hones the ability to construct predictions efficiently and *according to the concepts of its culture*", which accounts for the "highly variable and context-dependent nature of emotion".[9] This view of the pre-

7 George Henry Lewes, Problems of Life and Mind, 3rd series, vol. 1: The Study of Psychology, London 1879, 153 f.; Alexander Bain, The Senses and the Intellect, 4. edn., London 1894, 619–622; William James, The Principles of Psychology, vol. 2, London 1910, 454. For exposition Boddice, History of Emotions, 2024, 24–29.

8 Suparna Choudhury/Jan Slaby, Introduction: Critical Neuroscience – Between Lifeworld and Laboratory, in: ead. (eds.), Critical Neuroscience: A Handbook of the Social and Cultural Contexts of Neuroscience, Oxford 2012, 1–26, 2.

9 Katie Hoemann/Madeleine Devlin/Lisa Feldman Barrett, Comment: Emotions are Abstract, Conceptual Categories that are Learned by a Predicting Brain, in: Emotion Review 12 (2020), 253–255, 254.

dictive processing model of the brain demands, it seems to me, a de-centring of the brain in the neuroscientific argument, since it is so absolutely entangled with the question of "the concepts of its culture".

While neuroscientists rarely fully or explicitly acknowledge this, predictive processing is the operative assumption that has brought neuroscience to the brink of the humanities. In many ways, the popularity and visibility of Feldman Barrett's work has given impetus to scholars in other disciplines to research those situated cultural elements that no amount of brain imaging is going to reveal.[10] Among neuroscientists, the idea of an unstable material world as the source of all 'input' is often overridden by the notion that neurocognitive mechanisms "underlie the experience of body ownership and conscious selfhood".[11] Those are Anil Seth's words, but this emphasis on *underlying* biological mechanisms is widespread, and is suggestive of a root, a centre of the machine, a thing to which all experience is ultimately reduced. The reality is far more murky and it is noteworthy that Feldman Barrett et al. have said that "fully interdisciplinary collaboration is necessary to map the social, psychological, and cognitive mechanisms underlying emotional development", where the social seems to be given an equal share of the status in the "underlying mechanism" stakes.[12] I find it curious that the vision of this fully interdisciplinary collaboration is extended only to developmental and affective scientists, linguists, and neuroscientists. Given the description of the driving theory, the humanities and social sciences seem to me to be a mandatory inclusion, and they have not waited for an invitation.

Why? Without a world, there is no input. Without a collective agreement, a collective memory, a history, a culture, a politics, there is no conceptual field for what things mean or do not mean. The experience of body ownership, conscious selfhood, and subjective feeling states is part of a dynamic relation, a messy assemblage of neurocognitive stuff, sensory stuff, material stuff, and sacks of similar stuff (humans and other living organisms) that comprise the world. While the gaze of neuroscience is the interior, principally the brain, its explanatory power comes in large part from the exterior: cultural conceptual repertoires, cultural memory, and the material reality of the situated environment.

Ancient historians were among the first to the mark in understanding an implicit multidisciplinary rapprochement. Esther Eidinow, Armin Geertz, Quinton Deeley and John North, respectively ancient historian, religious historian (cognitive theo-

10 The popularization is Lisa Feldman Barrett, How Emotions Are Made. The Secret Life of the Brain, New York 2017.

11 Anil K. Seth, Interoceptive Inference, Emotion; and the Embodied Self, in: Trends in Cognitive Sciences 17/11 (2013), 565–573, 565.

12 Hoemann/Devlin/Barret, Comment, 2020, 254.

logian), neuropsychiatrist, and ancient historian, worked together since 2014 on the implications of the turn towards predictive processing in the cognitive sciences on historical analysis. They are unequivocal in pinpointing the implications: the "theoretical emphasis has in effect restored the human subject to the social world". In turn, this "underlines the importance of humanities scholarship in revealing the 'ecology of mind' […] as the basis for differentiating cognition into locally meaningful forms". Predictive processing was a "tipping point" in the cognitive sciences. It emphasized the inability of cognitive scientists to go it alone in building a full understanding of human experience because "beliefs, expectations, and other meaningful attributions to the formation of experience" were "central" to the model and could not be reached by study of the human interior. Crucially, they note that the rapid rate of evolution of theories of cognition within the cognitive sciences was unlikely to change the general direction of thinking. The compass has been set. The bearing laid in.[13] At the same time, it is vitally important to acknowledge just how recently this knowledge has been produced. Whatever radical interdisciplinary opportunities there may have been prior to Eidinow et al.'s intervention, the simple fact is that the "tipping point" here referred to only really registered beyond psychology and cognitive science after Seth's landmark work in 2013, Jan Slaby's corpus, especially after 2013, and the widespread uptick of recognition of Feldman Barrett's work after her popularising book of 2017.[14] The speed with which the implications have been pursued within the emotion sciences has been breathtaking. The speed at which scholars across the disciplines learn to talk each other's language is, unfortunately but inevitably, much more pedestrian.

The work of Eidinow and colleagues at least is radically interdisciplinary. This adds extra profundity to the conclusion, which was an especially strong negation of the notion of the biological 'underlying mechanism'. For these scholars, "the ideational, movement, and sensory contexts of […] people are no surface-level phe-

13 Esther Eidinow et al., Introduction, in: Esther Eidinow/Armin W. Geertz/John North (eds.), Cognitive Approaches to Ancient Religious Experience, Cambridge 2022, 1–16, 11. The influence of the project is already telling. See, e. g., Blanka Misic/Abigail Graham (eds.), Senses, Cognition, and Ritual Experience in the Roman World, Cambridge 2024.

14 Seth, Interoceptive Inference, 2013; Shaun Gallagher et al., The Brain as Part of an Enactive System, in: Behavioral and Brain Sciences 36/4 (2013), 421 f.; Slaby, Emotions and the Extended Mind, 2014; Jan Slaby/Shaun Gallagher, Critical Neuroscience and Socially Extended Minds, in: Theory, Culture & Society 32/1 (2015), 33–59; Barrett, How Emotions Are Made, 2017. Barrett's significance here actually dates back to at least 2006, with two seminal articles: Are Emotions Natural Kinds?, in: Perspectives on Psychological Science 1 (2006), 28–58; and Solving the Emotion Paradox: Categorization and the Experience of Emotion, in: Personality and Social Psychology Review 10 (2006), 20–46; with the development of her ideas falling into line with the language of predictive processing gradually, culminating in Linda Feldman Barrett/W. Kyle Simmons, Interoceptive Predictions in the Brain, in: Nature Reviews Neuroscience 16 (2015), 419–429.

nomena to be accounted for by uniformly operating cognitive and brain processes, but necessary components of the network of constraint that contributes to locally distinctive sensibilities and their interpretation". Not culture as gloss on biology, but bioculture: a fully integrated and unstable system. Where historical experience looks, sounds, feels, and smells different, we must take seriously the possibility of an historically and locally situated human experience, alien to 'our' own. As Eidinow et al. put it, both historical and contemporary research models in radically different disciplines point to the "power of belief in shaping experience through effects on brain function".[15]

In various other human and social sciences, the implications are also being pursued, but in many ways they were being pursued prior to the neuroscientific influence. In the humanities and social sciences, the wearing off of the hangover from the post-modernist binge left a bunch of things looking starkly clear and in need of explanation. Social constructionism had attempted to clear away the body and the brain to make way for the discourse underpass, but the ultimate implosion of discourse under the weight of its own irony as an anti-metanarrative metanarrative left the body and brain in new need of explanation. Yet the constructedness of things did not go away. The valid elements of the cultural turn had, in the throes of fantasy, either overwritten the body with text or else dispensed with it as the crude stuff of biology, safely ignored. In the aftermath, the body came back into view as not only part of the constructionist view formed in a cultural context, but also as formative of that context. A new model of causation was required that could understand world and body as a dynamically related entity, not readable through the binaries of nature/nurture or biology and culture, but only through a relational or ecological whole. Thus, the concept of 'situated biology' emerged to explain the ways that bodies work differently and meaning is differently produced in different cultural contexts, showing that on multiple levels the body, the brain, the other organs, are plastic and contingent, working not simply mechanically or automatically or autonomically, but predictively, interactively, responsively.[16] The brain-body system, it turns out, according to various sociologists and anthropologists, but I am thinking especially of Margaret Lock, is not closed off to the world, but part of it, just as the world is part of the brain-body.

The specific role of expectation, variously described and theorized in different disciplines – script, feeling rules, emotive, affect labelling, prediction – means that

15 Eidinow et al., Introduction, 2022, 11.

16 Margaret Lock/Patricia Kaufert, Menopause, Local Biologies, and Cultures of Aging, in: American Journal of Human Biology 13/4 (2001), 494–504; Naomi Adelson/Leslie Butt/Karina Kielmann (eds.), Troubling Natural Categories. Engaging the Medical Anthropology of Margaret Lock, Montreal 2013; Maurizio Meloni, Impressionable Biologies. From the Archaeology of Plasticity to the Sociology of Epigenetics, New York 2019.

human meaning is always made in reference to foregoing meaning-making repertoires, including language, material culture, belief and knowledge systems, governmental and institutional structures.[17] The fact that expectation must be built into changing, highly specific circumstances, means that the meaning-making process might go awry, by a little or by a lot. A neuroscientist might call this a processing or coding *error*. But whatever it is called, it results in something new being added to the range of expectations in the future. Plasticity and cultural mutability, taken together, therefore help explain situated differences, continuity, *and* change. The historian, always seeking an explanation for change, always looking for a working theory of causation, *inter alia*, suddenly finds inspiration from other disciplines which, on the face of it, were only ever looking for how and why things *are*.

The neuroscientific division between interior and exterior starts to look like an illusion. The barrier, if there is one, is, at the very least, permeable in both directions. Meaning is not made in the brain, but only in the *encounter*, in the *dynamic*. Thus, neurophilosopher Thomas Fuchs presents the "*mediated immediacy* of the relation between the subject and the world", and the "intersubjectivity of perception" that must "be acquired and learnt in early childhood". "Insights into neuronal plasticity", he says, "reveal that *it is the interaction with the environment that creates the necessary conditions of experiencing the environment*". Human perception, he avers, "is a form of *socialized and cultivated perception* enabled by joint attention and shared intentionality. This holds equally true for human feeling, thought and action."[18] Whatever the machinery of the human being may be, it is utterly meaningless – its operations utterly insignificant – if it does not function *as part of* a world of which it is both formative and formed. Fuchs points out that "neurobiology is not in a position to infer a single intentional meaning from its main object of study – that is, the brain – which was not previously gleaned from introspection or intersubjective communication and only then attributed to its object". He goes on to say that "there is no one-sided, monolinear relationship between 'biology' and 'culture', but rather a circular connection. Neuronal dispositions are largely traceable to an individual's life experiences, especially if these relate to a person's cultural capacities. As regards

17 In order of mention, Anna Wierzbicka, Emotion, Language, and Cultural Scripts, in: Shinobu Kitayama and Hazel R. Markus (eds.), Emotion and Culture: Empirical Studies of Mutual Influence, Washington, D. C. 1994, 133–196; Arlie Russell Hochschild, Emotion Work, Feeling Rules, and Social Structure, in: American Journal of Sociology 85/3 (1979), 551–575; William M. Reddy, Against Constructionism. The Historical Ethnography of Emotions, in: Current Anthropology 38/3 (1997), 327–351, esp. 331–335; Valeria V. Vlasenko/Emma G. Rogers/Christian E. Waugh, Affect Labelling Increases the Intensity of Positive Emotions, in: Cognition and Emotion 35/7 (2021), 1350–1364; Andy Clark, Whatever Next? Predictive Brains, Situated Agents, and the Future of Cognitive Science, in: Behavioral and Brain Sciences 36/3 (2013), 181–253.

18 Fuchs, Ecology, 2018, 170 f.

their functional description and even more their explanation, recourse is essential to an individual history of *lived meanings*".[19]

Something similar has been expressed by Laurence Kirmayer, a prominent cultural psychiatrist, and others: "Older brain-centric views are giving way to more integrative pictures", Kirmayer says, "in which the cultural world shapes and reshapes our neural circuitry even as our brains cooperate to produce the social world […] the brain is the organ of culture; mind and experience are processes located in loops of active engagement of the brain and the body with the social world". To study these phenomena requires a general view – "social, cultural, and historical specificity" – and, moreover, if we are to hope to answer "the question of what makes us human", then we need, in Kirmayer et al.'s estimation, "an evolutionary story in deep time, but also cultural and personal stories in historical, developmental, and biographical time".[20]

These reference points seem similar to the neurohistorical project of Daniel Lord Smail, for whom everything from the atmosphere humans breathe to the stuff they put in their mouths and guts to the media by which they put stuff into their brains all *counts* as part of the way experience is made and unmade. And to be clear, this making and unmaking has to do with the imprint of culture, including discourse but not limited to it, on the physical stuff of human being – flesh, viscera, neurons, hormones, blood pressure, cascading electrical and chemical flows – as well as the disruptive effect of this human *being* on the weaving, re-weaving, and renting of the fabric of culture.[21]

The same is true in the social sciences. Nikolas Rose and Des Fitzgerald, for example, point to a widespread inspiration among social theorists prompted by "the emergence of a range of approaches – whether in neuroscience, epigenetics, or microbiomics [the study of all the microorganisms living on and in human bodies and how they change over time]– that are beginning to tease out the precise biosocial *mechanisms* through which the bodies and brains of the human organism are developmentally shaped from conception, if not before, by their dynamic transactions with their environments." "To think of human neurobiology, today", they say, "requires us to think of a dynamic interplay in which human bodies and human environments constrain each other, mark each other, intermingle in an awk-

19 Ibid., 283.

20 Laurence J. Kirmayer/Carol M. Worthman/Shinobu Kitayama, Introduction. Co-constructing Culture, Mind, and Brain, in: Laurence J. Kirmayer et al. (eds.), Culture, Mind, and Brain: Emerging Concepts, Models, and Applications, Cambridge 2020, 1–50, 1, 35.

21 Daniel Lord Smail, On Deep History and the Brain, Berkeley/Los Angeles 2007. For a development of the original thesis, see Rob Boddice, Neurohistory, in: Marek Tamm/Peter Burke (eds.), Debating New Approaches to History, London 2019, 313–318; with Smail's reply and Boddice's rejoinder, 301–325; see also Boddice, History of Emotions, 2024, 170–186.

ward, shuffling, embrace".[22] And of course, the implication is that the knowledge requisite to understand this embrace must depend on insights from across the disciplines, and given their full expression only in the light of culturally and socially and environmentally grounded analyses of equal sophistication to the neuroscientific, epigenetic, and microbiomic. Much of that sophistication is coming from the comingling of cognitive science with philosophy, especially in the work of Giovanna Colombetti.[23] The application of Colombetti's enactivism to emotion research (and to the history of emotions in particular) seems set to further underscore the biocultural emphasis of the field.[24] An additional effect is to de-centre the brain, which is a much-needed impetus in critical neuroscience. Research across the disciplines on interoception – a 'sixth sense' pertaining to internal perception that is embodied, embrained, innervated, *and* culturally situated – is complemented by an array of research, including various branches of medical research and experimental therapeutics, on the stimulation of the vagus nerve as part of the biocultural sensory array.[25]

The picture is completed from the world of social psychology. Paul Stenner observes the "profound distortion" of the "psychological dimension (often discussed in terms such as 'subjectivity', 'affect', 'experience' and 'desire')", when it is "studied in abstraction from the social, cultural and historical context", a distortion that is "endemic in the circumstances of the received disciplinary organization of research into departments".[26] It is an explicit call for a sustained "transdisciplinarity".

2. Implications for the discipline of history

It will be noted, perhaps, that much of this implicates the discipline of history, though some of it remains at an arm's-length understanding of what history might

22 Nikolas Rose/Des Fitzgerald, The Urban Brain. Mental Health in the Vital City, Princeton 2022, 5.

23 Giovanna Colombetti, The Feeling Body. Affective Science Meets the Enactive Mind, Cambridge, MA 2014.

24 Marie van Haaster, Both Meaningful and Embodied. Moving Towards Dynamical Approaches in the History of Experience, in: Emotion Review 16/44 (2024), 211–223.

25 Manos Tsakiris/Helena De Preester (eds.), The Interoceptive Mind. From Homeostasis to Awareness, Oxford 2018; Mark S. George et al., Vagus Nerve Stimulation. A New Tool for Brain Research and Therapy, in: Biological Psychiatry 47/4 (2000), 287–295; Lauren B. Marangell et al., Vagus Nerve Stimulation. A New Tool for Treating Depression, in: Primary Psychiatry 12 (2005), 40–43; Bruno Bonaz/Valérie Sinniger/Sonia Pellissier, Vagus Nerve Stimulation. A New Promising Therapeutic Tool in Inflammatory Bowel Disease, in: Journal of Internal Medicine 282/1 (2017), 46–63; Adam Broncel et al., Vagal Nerve Stimulation as a Promising Tool in the Improvement of Cognitive Disorders, in: Brain Research Bulletin 155 (2020), 37–47.

26 Paul Stenner, Liminality and Experience. A Transdisciplinary Approach to the Psychosocial, London 2017, 203.

actually bring to the table. Historians, like anthropologists, have pursued the social and cultural specificity of emotions and senses and other aspects of human experience for decades, but we have, I think, tended to be a borrowing discipline more than a lending one.[27] There are good reasons now to change this, not least because history is the only discipline that seriously and consistently adds a temporal axis to the social and cultural. I will not dwell, therefore, on what the history of emotions does for historians and the discipline of history, but rather on the implications for those other emotion research disciplines in taking history seriously as a producer of emotion knowledge.

To begin to entertain the richness of the history of emotions, it is necessary to abandon recourse to human nature as a timeless fact. As Ute Frevert has put it, the "concept of a body that both expresses and produces emotions swiftly acquires an alluring quality of timelessness", but the "body that Augustine referred to was different from the body that contemporaries have in mind", and the same is true of brains.[28] Nevertheless, Frevert is dismissive of collaborations with psychology or neuroscience in the pursuit of this changeable body-mind, which I think is a mistake. As Piroska Nagy has said, in response to Frevert, the social neuroscientific turn toward plasticity, bioconstructionism, and predictive processing has underscored the importance of context and situation in brain sciences, leading them to a "recognition of the cultural dimension" of emotions. It makes "interdisciplinary discussion possible", and in my view it makes it wholly necessary.[29] And, to be absolutely clear, it is not that historians particularly need neuroscience, but that neuroscience particularly needs history. I am not *only* interested in historians' employment of neuroscientific insights (and contra Ruth Leys' assessment of it) in adding to what historians "have always tried to do".[30] I am interested in historians adding to what emotion researchers in *other* disciplines are trying to do, and that involves a critical convergence. *History is a knowledge producer in emotion research. Its findings have a bearing*

27 It is difficult to give substantive evidence for this, precisely because it would require the measurement of an absence. An impressionistic account goes as follows: reading widely in the history of emotions across different periods, one finds many references to sociological theory, psychological theory, social neuroscience, social medicine, neurophilosophy, affect theory, 4E cognition, theories of materiality and spatiality borrowed from cultural studies and environmental studies, and cultural constructionism borrowed from anthropology. Conversely, reading widely in emotion research in non-historical disciplines reveals virtually no references to historical work and virtually no influence of decades of work in the history of emotions on emotion research per se. This is an extraordinary failure, in my view, given the body of evidence historians have produced to demonstrate the historical mutability of emotion concepts and emotional experiences.

28 Ute Frevert, Comment in response to Piroska Nagy, History of Emotions, in: Tamm/Burke (eds.), Debating New Approaches, 2018, 202–207, 204.

29 Piroska Nagy, Response, in: Tamm/Burke (eds.), Debating New Approaches, 2018, 208–210, 208.

30 Ruth Leys, Reply to my Commentators, in: History of the Human Sciences 33/2 (2020), 150–159.

on the emotion research of other disciplines. As for neuroscientists, we should recognize their own academic integrity and their will to produce good knowledge. If historians produce knowledge that is in any way an irritation to the operative assumptions in any other discipline, the best practitioners of those disciplines will understand that critical engagement is imperative. In either direction, dismissal on the basis of disciplinary politics or inconvenience is a sign of a bad scientific practice.

A good expression of the productive possibilities of collaboration was penned in 2020 by Daniel Gross, a scholar of rhetoric and well-known as a leading figure in the history of emotions, and Stephanie Preston, a neuroscientist. Their original historical argument is aimed at revolutionizing the way in which emotion science is done in the present. Noting the influence of Charles Darwin's work on emotions, they demonstrate how far Darwin's method has been lost in the process of pinning specific psychological research goals on an eminent genealogy. Re-visiting Darwin's own method, they find fault with the current preoccupations with controls, delimitation of focus, and an overall level of specialism that leads to laboratory and experimental results that have no connection to the lived experience of emotions. Gross and Preston call for nothing less than a re-embrace of generalism within emotion science that would include the humanities in all aspects of emotion research, an insight they reach only through close historical analysis. Their exhortation to "always historicize" seems like a fitting slogan for cross-disciplinary research that is aimed at making visible the hidden assumptions that prompt research and at limiting the kinds of claims that can be made about research that is necessarily always itself situated in time and place. They say that a failure to historicize – that is, a failure of the researcher to temporally locate herself and her subject – is a failure in general terms.[31] Whatever hopes might have been entertained in the psychological laboratory of deriving or divining a general law all go up in smoke when generalities neglect the particularities of history. Just because it works on a WEIRD (Western, Educated, Industrialized, Rich, and Democratic) lab subject under the gaze of WEIRD scientists does not mean it will work for all humans everywhere or every*when*.[32] How are emotion scientists effectively to historicize if they do not productively involve historians? Otniel Dror has gestured at the same implication when suggesting that when historians enter the psychological laboratory, it will not be to *learn* so much as to *teach*.[33] The same applies when historians are engaged in medi-

31 Daniel M. Gross/Stephanie D. Preston, Darwin and the Situation of Emotion Research, in: Emotion Review 12/3 (2020), 179–190.

32 Joseph Henrich/Steven J. Heine/Ara Norenzayan, The Weirdest People in the World?, in: Behavioral and Brain Sciences 33/2–3 (2010), 61–135.

33 Otniel E. Dror, Comment. Historians in the Emotion Laboratory, in: Emotion Review 12/3 (2020), 191 f.

cal education (of professionals and patients alike), with respect, for example, to the socio-emotional quality of chronic-pain diagnosis and care, diagnostic categories of mental illness and associated therapies, and broader social and medical problems associated with widespread loneliness, the politics of victimhood, and the intersectional politics of social exclusion.[34]

And there are, in a preliminary way, signs of this kind of collaboration in a number of projects around the world. The Centre for the Politics of Feeling at the School of Advanced Study, University of London, is predicated on the potential for interdisciplinary knowledge building across the sciences and humanities. Led by Manos Tsakiris, whose expertise lies in the fields of cognitive neuroscience and neuropsychology (and especially interoception),[35] the Centre explicitly invokes "parallel epistemological changes" in the disciplines of history, political science, psychology, and neuroscience, that have turned them all towards situated physiology, affect, and emotions. Its intention is to "occupy precisely that new space" between the disciplines in order to address the dynamic relation of feelings and politics and the "visceral" quality of political behaviour in democratic crisis.[36]

A new centre of excellence in culture and the mind has been established at the University of Copenhagen, housed in the department of English but also incorporating history, anthropology, comparative literature, linguistics, psychology, and psychiatry. Its mission is to explore "how the human mind and common humanity have been imagined in different cultural, socio-political and disciplinary contexts, examining the assumptions and forces which shaped such definitions".[37] The centre is pursuing a post-binary aim: a "historically and clinically nuanced model of interaction between socio-cultural contexts and ideas of the psyche".[38]

In some ways, this mirrors the Culture, Mind, and Brain programme at McGill University's Division of Transcultural Psychiatry, which incorporates psychiatrists,

34 Historians' production of knowledge in these areas clearly equip them for more wide-reaching roles beyond the discipline of history. Rob Boddice, Knowing Pain. A History of Sensation, Emotion, and Experience, Cambridge 2023, 110–136; Deborah Padfield, Perceptions of Pain, Stockport 2003; Mark Neuendorf, Emotions and the Making of Psychiatric Reform in Britain, c.1770–1820, London 2021; Katie Barclay/Elaine Chalus/Deborah Simonton, The Routledge History of Loneliness, London 2023; Laura Jeffrey/Matei Candea (eds.), The Politics of Victimhood, History and Anthropology 17/4 (2006); Xine Yao, Disaffected. The Cultural Politics of Unfeeling in Nineteenth-century America, Durham 2021.

35 Tsakiris/De Preester (eds.), Interoceptive Mind, 2018.

36 Centre for the Politics of Feelings, Our Research Center, https://www.politics-of-feelings.com/about (14 February 2024). See the key publication Manos Tsakiris/Neza Vehar/Raffaele Tucciarelli, Visceral Politics. A Theoretical and Empirical Proof of Concept, in: Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences 376/1822 (2021), article 20200142, 1–8.

37 Centre for Culture and the Mind, https://cultmind.ku.dk/ (14 February 2024).

38 Centre for Culture and the Mind, About the Centre, https://cultmind.ku.dk/about-the-centre/ (14 February 2024).

neuroscientists, anthropologists, and, on a couple of occasions, myself as the sole historian. The programme aims to explore "the interplay of biological, psychological, and social processes in brain function, cognitive development, and mental health" and "the societal and political implications of brain research". It is actively looking for ways in which the "neurosciences can engage the social sciences and humanities to produce new concepts and methodologies that advance our understanding of the brain as situated in social and cultural contexts".[39]

Psychology's historical turn has also taken root at Harvard University, where it is described as "an emerging field that examines the ways in which histories and psychologies co-evolve in a continuous way, seeking to understand how psychology changes over historical time and how the origins of our present-day psychology [that is, how our minds work, not the discipline] lie in historical processes".[40] The Culture, Cognition, and Coevolution Laboratory won NEH funding for a new research initiative on historical psychology, with expertise from a wealth of disciplines, including classical linguistics, history, computer science, and biology. Jennifer Deveraux was to pursue "computational methods for historical psychology: a case-study in Latin, c. 200BCE–1700CE", forcing a radical confrontation of classics, sentiment mining, and linguistic analysis. However, American politics have since intervened.

And there is the new "emotions in history" initiative at UC Santa Barbara, with funding from the Interdisciplinary Humanities Center, comprising a collaboration between historians of emotion and faculty of psychological and brain sciences. They talk of facilitating "inclusive and probing methodological conversations on how humanists can contribute to assessing human emotions, how psychologists can add historical nuance and depth to their inquiries, and how we can generate truly interdisciplinary research in a joint effort". Moreover, they emphasize that "historians and psychologists share a fundamental belief in the cross-cultural variation of emotions", which are "neither constant nor universal across time and space; instead, they are systematically shaped by social and cultural environments".[41] I think this represents the most profound statement of common purpose between psychologists and historians, who, in this case, just happen to be working on ancient and middle period Chinese materials. It is a challenge to the WEIRD perspective in psychology just as much as it is a challenge to the global north focus of emotions historiography.

---

39 McGill, Culture, Mind and Brain Program, https://www.mcgill.ca/culture-mind-brain/ (14 February 2024). It has fostered two key radically interdisciplinary publications: Choudhury/Slaby (eds.), Critical Neuroscience, 2012; and Kirmayer et al. (eds.), Culture, Mind and Brain, 2020.

40 Historical Psychology Project, http://historicalpsychology.fas.harvard.edu/ (14 February 2024). See Michael Muthukrishna/Joseph Henrich/Edward Slingerland, Psychology as a Historical Science, in: Annual Review of Psychology 72 (2021), 717–749.

41 Interdisciplinary Humanities Center, Emotions in History Research Focus Group, https://ihc.ucsb.edu/emotions-in-history/ (14 February 2024).

All of these initiatives, research programmes, and interdisciplinary collaborations were, I think, probably still inconceivable in the first decade of the twenty-first century. It should be a matter of the utmost concern that most historians are unaware of these developments. While I do not want to use this space to appraise the publications emerging from these projects, I believe it is essential that historians take notice, lest something like 'historical psychology' assume an exclusive epistemological and methodological bearing that will denude it of its transdisciplinary usefulness. Early attempts that did not include any consultation with historians, and that duly blundered, already received criticism.[42] It is essential that the historian's role comes to be well defined in future collaborative endeavours if we are to overcome some large and difficult obstacles.

3. Entanglement

Otniel Dror summarizes his view of the historian's role across disciplinary lines, highlighting a specific challenge:

> "The historian's contribution is […] to make immanent in scientific emotion that which is missing from contemporary science: the cosmology, the vocation, the perspective of the humanities writ large. It is to exemplify how cultural assumptions are implicitly integrated into laboratory experiments. It is to explicate how (seemingly) natural kinds are, in fact, social kinds. It is to reconceive private acts (e. g., of "irrationality") in terms of their social rationality. It is to demonstrate how our basic and intimate experiences are constituted in part by our moral-social valuations. It is to make ostensive the cultural scripting of seemingly reflex and pre-programmed physiological reactions. It is to challenge basic scientific tenets by studying the emotion-history of the science of emotions (rather than only the science-history of emotions). It is, in short, to infuse the historian's know-how into emotion […] [The] foundational challenge for a science-humanities/bio-cultural emotion is […] how do we infuse the know-how of the humanities into the laboratory and into scientific protocol?"[43]

I am often asked what an interdisciplinary methodology might look like, but unless and until existing methodologies and operating assumptions are mutually understood, we are unlikely to proceed productively. Dror's comment seems to refer sci-

42 Thomas T. Hills/Eugenio Proto/Daniel Sgroi, Historical Analysis of National Subjective Wellbeing Using Millions of Digitized Books, in: Nature Human Behaviour 3 (2019), 1271–1275; Rob Boddice, The Happy Emotions are Not Necessarily What they Appear, in: Aeon, 15 January 2020, 2.

43 Dror, Comment, 2020, 191 f.

entists to science studies (of which history has a piece), which is both a good idea and fraught with political obstacles. It is to politics, ultimately, that we must refer to find critical common ground, but it has the inevitable appearance of putting history on the offensive.

At the core of what we do as historians is to emphasize and document the contextual and conceptual contingency in emotional and experiential development, practice, and sharing. We try, as best we can, to reconstruct these contingencies and mark their distance from contemporary Western psychological framing of emotional and sensory experience, building an understanding of situated material affordances, knowledge systems, and beliefs. This is work that disrupts any notion of a timeless, biological seat for emotions and senses while emphasizing the possibilities of recovering the how and why of situated experience and, crucially, the how and why of experiential change. This is clearly of import for the discipline of history, but what does it do beyond that discipline?

Not only does it provide a set of theories and methods for interrogating social, cultural, and linguistic contexts, which loom large in social and cultural neuroscience, but without any clear indication of what to do with them, it also fundamentally disrupts foundational assumptions in emotion research in other disciplines, which tend to begin with definitions and framings that render invisible their own historical situatedness. I am often struck, for example, that the insistence on conceptual situatedness among social neuroscientists comes with no awareness of the field of conceptual history, and that their attachment to conceptual contingency as a working theory has not prevented them from mobilizing tight and timeless definitions of emotion, affect, and so on, and sub-categories of individual emotions, without due scrutiny of the intellectual and ethical implications of this tension or contradiction.

So far, historians sit beyond the neuroscientific disciplinary boundary and, if they take note at all, they offer criticism that is easily ignored. What if they impose themselves on the inside, not as post facto commentators, but as research collaborators? The influence of historians could make for both tighter primary questions and experimental design, with the potential for further-reaching research outcomes. Casting back to Gross and Preston's exhortation to "always historicize", I ask to what extent this can be professionally realized in the emotion sciences unless the expertise of historians themselves is directly recruited. We historians might wait in vain to be invited, but there is nothing to stop us from developing our own experimental research projects and recruiting *them*.

The influence of historians should also apply to the practical applications of emotion science. Both basic emotions and bioconstructionist emotions are in thousands of schools, as formal programmes of teaching children emotional literacy. In the case of basic emotions, the conviction that emotions are universal serves as a

justification, which historians among many others are able to unpick and challenge. But the presence of bioconstructionist models in classrooms is equally politically and ethically suspect. Feldman Barret and others have noted that "emotion concepts are tools for physiological and behavioural coregulation", with experiential and social implications.[44] What qualifies the research psychologist, in the name of conceptual plasticity, to deploy specific presentist and American conceptual definitions of emotion as part of the early school curriculum? Historical analysis of how emotional regimes have been formed and implemented is directly relevant to the need to scrutinize emotional-regime building in the present. Emotional prescriptions always serve someone or something. This is as true of the present as it is of the past. History and other humanities disciplines are fundamentally interested in the operation of power and authority, often implicitly loaded into social and cultural structures that are crucial parts of the dynamics of experience. Historical analysis helps understand how experience is delimited and directed *as if* it were natural. This kind of analysis should register across the disciplines, but it demands of other disciplines to self-examine their implicit politics and introduce a historical check before turning science into pedagogy.

Anything that threatens to disrupt disciplinary boundaries or to expose the limitations of the disciplinary silo is going to face internal resistance. I spend a lot of time trying to persuade my historian colleagues to look over the fence. While I am encouraged by the connections I am making across those boundaries, I am aware that this activity is perforce disruptive. The disciplinary pullback is, I think, a major barrier to making good on a ripe intellectual opportunity. In a special section of *Emotion Review* in 2020, I wrote that "to fail to come together and, at first at least, to recognise one another, will be a lost opportunity of enormous magnitude", for "emotion research can only count for something if it ceases to be on parallel or divergent tracks according to outmoded and sealed disciplinary logics".[45] This means raising the volume of criticism within the discipline of history with regard to those who resist the path to common research goals across the disciplines, for example, or with those who have doubled down on psychoanalytic or basic emotions models of explanation, who either fail to address the critical evidence against their approaches or else foreground no theoretical awareness at all for their choices. Putting our own house in order is a necessary condition of building new interdisciplinary bridges.

44 Katie Hoemann/Fei Xu/Lisa Feldman Barrett, Emotion Words, Emotion Concepts, and Emotional Development in Children. A Constructionist Hypothesis, in: Developmental Psychology 55/9 (2019), 1830–1849, 1840 f. For a discussion, see Rob Boddice, Epilogue, in: Katie Barclay/Peter Stearns (eds.), The Routledge History of Emotions in the Modern World, New York 2023, 557–562.

45 Rob Boddice, History Looks Forward. Interdisciplinarity and Critical Emotion Research, in: Emotion Review 12/3 (2020), 131–134, 132.

Even then, the challenge of funding remains, which still tends to be organized according to departmental logics. Multidisciplinary consortia are a potential route forward (especially in funding landscapes that actively encourage them, such as in the EU). But major endeavours are contingent on an attitudinal change. Historians can neither close their eyes and hope other disciplines will mind their own business nor pretend that interdisciplinarity is as simple as mere token associationism.

I have, elsewhere, already registered my criticism of an article in *Nature Human Behaviour* that inadvertently and ineptly aligned the history of emotions with psychological universalism, basic emotions and the like.[46] The article formally unites Paul Ekman and Antonio Damasio (among many other basic emotions scientists) with Ute Frevert and Peter Stearns (among other historians who, presumably, would argue that their work is incompatible with basic emotions science), as 'co-authors'. It is inadequate to advertise, as here, "the era of affectivism" – the latest iteration of the 'emotional turn' – without recognizing that historians have nothing much in common, nor anything practical to do with, the assembled scientists in the list of authors. Interdisciplinarity is not as simple as signing up to a broad statement about the popularity of emotion research when there are such profound differences in first principles. Such an article does representational harm to the history of emotions and risks undercutting the more substantial work taking place to build intellectual bridges across the disciplines. The challenges of substantial interdisciplinary engagement are great, and the work is difficult. This is just as it should be. If it seems easy, as in the case of the *Nature Human Behaviour* article, it is probably flawed.[47]

Still, I am cautiously optimistic. The evidence of substantial theoretical consensus and practical beginnings of collaboration signal a clear opportunity here. My question, for both historians and emotion researchers in other disciplines, is whether there is any broad-based will to take it. Do disciplinary logics and politics, and the comfort of not having core assumptions and guiding principles challenged,

46 Boddice, History of Emotions, 2024, 185.

47 It is customary to reduce the listed authors to the first three, but here it is essential that all the names are included because the list of names seems like the main point of the article: Daniel Dukes/Kathryn Abrams/Ralph Adolphs/Mohammed Emtiaz Ahmed/Andrew Beatty/Kent C. Berridge/Susan Broomhall/Tobias Brosch/Joseph J. Campos/Zanna Clay/Fabrice Clément/William A. Cunningham/Antonio Damasio/Hanna Damasio/Justin D'Arms/Jane W. Davidson/Beatrice de Gelder/Julien Deonna/Ronald de Sousa/Paul Ekman/Phoebe C. Ellsworth/Ernst Fehr/Agneta Fischer/Ad Foolen/Ute Frevert/Didier Grandjean/Jonathan Gratch/Leslie Greenberg/Patricia Greenspan/James J. Gross/Eran Halperin/Arvid Kappas/Dacher Keltner/Brian Knutson/David Konstan/Mariska E. Kret/Joseph E. LeDoux/Jennifer S. Lerner/Robert W. Levenson/George Loewenstein/Antony S. R. Manstead/Terry A. Maroney/Agnes Moors/Paula Niedenthal/Brian Parkinson/Ioannis Pavlidis/Catherine Pelachaud/Seth D. Pollak/Gilles Pourtois/Birgitt Roettger-Roessler/James A. Russell/Disa Sauter/Andrea Scarantino/Klaus R. Scherer/Peter Stearns/Jan E. Stets/Christine Tappolet/Fabrice Teroni/Jeanne Tsai/Jonathan Turner/Carien Van Reekum/Patrik Vuilleumier/Tim Wharton/David Sander, The Rise of Affectivism, in: Nature Human Behaviour 5/7 (2021), 816–820.

trump the critical benefits of difficult collaboration? Does the inertia of the institutional framing of research, coupled with both siloed training and funding, stand in the way of making good on a clear chance to produce transdisciplinary knowledge? Are we ready to embrace uncomfortable situations – the historian in the laboratory, the psychologist in the archive? Do we have the necessary vision to be able to formulate what a meaningful collaboration really looks like, in practice? Are progressive funders, like the European Commission, prepared to fund transdisciplinary research across the emotion sciences with historians and other humanities scholars as principal investigators? We must push for this. But for me, the vision of this transdisciplinary future is predicated on a number of concessions: no single discipline is the master discipline of emotion research; emotion researchers across the disciplines will have to acknowledge that some core assumptions must be challenged and rejected if we are to be collectively and critically productive; 'emotion' itself is not a sufficient category of analysis, much less a master category: it simply is not broad enough to capture the vicissitudes and historical specificities of human experience. We all have quite a bit to lose, but the price, in my view, is fair.