

Emotion, Communication, Interaction

Modular Studies in Cognitive Philosophy

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Cognitive Science and Psychology



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Preface

This collaborative book venture has taken a long time to finally get published from a distinguished publishing house like Vernon Press, especially as the project got impeded by the onset of a global pandemic caused by the novel Coronavirus, and then other intervening factors of logistics and availability of the scholars from different parts of the world. Nonetheless, it is commendable that the editors of this volume, Tirtha Prasad Mukhopadhyay from Mexico, Shoji Nagataki from Japan, and John Baker from Vietnam, have successfully compiled and edited the different essays so as to introduce readers to a fresh set of perspectives on human emotions, and thus offer a road map on communication of emotions as it is actually effected between humans and possibly between humans and machines. The authors of this volume intend to take emotions a step ahead and provide insights into how humans react, sensitize and interact among themselves and with objects in the world. Their philosophical insights are based on evolved and advanced cognitive philosophy and related epiphenomenological inferences. Entangled interdisciplinary approaches, from more empirical and cognitivist positions, should attract contemporary readers of philosophy. A variety of approaches is clustered in the same volume as they would be in a dedicated “companion” or “reader” that seeks to expose interested readers to a broad spectrum of interpretative methodologies in cognitive philosophy.

A preliminary consideration of the chapters, therefore, demonstrates that the authors have distinctive disciplinary allegiances ranging from Cognitive Psychology, Applied Psychology, Neural Computational Sciences, to Social Psychology, Logic, Phenomenology and Aesthetics. Yet, the arrangement of scholars from various fields is justified precisely because of their disciplinary forays into emotions and their nuances or reinforcements. The disciplinary angle branches out in different directions, showing how received definitions could be challenged and modified to explain emotional dynamics across diverse fields like semantics, computational networking or social behavioralism. A correct flow chart of emotions, as they are generated or appropriated in human contexts, may be used to simulate communications with machines.

This book was jointly conceived by scholars of Philosophy at the University of Guanajuato, Mexico and Chukyo University at Nagoya, Japan. An initial agreement between the faculty of two internationally reputed Universities led to a call for contributions. The idea was to extend the horizon of emotion studies for more philosophically and humanistically inclined readers — but also take account of recent advances in neuroscientific and cognitive studies of

appraisals and effectuation. An important reference for emotion studies has recently come out of post-Jungian scholarship, especially in contemporary psychiatry, where emotional healing is prioritized. Emotional well-being, in the face of recognition of acute forms of mental impairment, depression, Alzheimer's and other kinds of mental conditions, receives proactive attention in today's medical retreats of therapy and wellness, in marked contrast to the parochial attitude towards mental sufferings observed in previous years. Thus, emotions have once again taken the center stage in research. The last century and also the most recent epoch in the academy signal far-reaching advances in the growth of awareness on well-being, both on personal and prosocial levels of experience. The question of sociopsychological well-being has taken a central position in government policy, following UN initiatives like the Mental Health and Well-Being Strategy for 2024 and beyond. The rise in awareness of the need for mental well-being, empathy, and self-esteem in a world that appears to be increasingly fragmented signals a positive development in the global context. The essays included here are all radical and progressive in their orientation and accept technological mediation for the future.

The editors have worked tirelessly with authors to come to an agreement on the common issues that emerge from emotion studies. Interdisciplinarity contributes to this process and provides a vertebral support for the epistemologically varied sets of deduction. But overall, emotions, following the insights developed here, are now worth considering as more than merely neuronal or cognitively appraised sensations. They are perhaps stranger and more complicated than basic instruments of survival. All this knowledge is made available by scholars working on similar research projects in different countries. The Japanese scholars have contributed significantly in deconstructing established models of emotional sentience. Scholars from Spain, Brazil and India have contributed discretely toward the central concerns with the nature and potential future of emotions and communication studies. The project was started and sustained with academic initiatives independent of funding or scholarships, although some of the scholars have acknowledged their sources of sponsorship. The editors are grateful to both the University of Guanajuato, in Mexico and Chukyo University, in Nagoya, Japan, for letting their scholars and scholars from various other acclaimed university departments come together for a novel effort.

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Introduction

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A Historical Understanding of Emotions

Emotions have been studied in antiquity by philosophers of both empirical and linguistic, as well as more spiritual-holistic orientations. Emotions, or 'feelings' – as they are commonly perceived and called – were considered to be integral to our holistic existence. Ancient physicians describe the natural and full range of emotions in several treatises of the ancient world, and interestingly enough, they define emotions and their functional characteristics with an insight that is, in many ways, quite eye-opening even for contemporary psychologists. Emotions were defined as distinctive categories of experience¹ — that is, "mental,"² or "intentional"³ tools of appraisal that were naturally and intrinsically borne by an animal entity and likewise manipulated to satisfy basic natural desires in real life. In case of emotions, the psychological faculty involved in gaining experience is also identified by the term "affect," which implies affectation, sensibility, or response toward feelings and their external triggers in the environment or internal triggers in the body. In fact, emotion categories were already deconstructed and analytically described in the most ancient literature on human passions and their effects.

The ancients also realized that the health of both the body and mind depended on the evocation of moderate and wholesome affection and the achievement of tranquility.

If the famous second-century medical savant Galen is considered as a reference for clinical cures of specific emotional disorders, then we must also admit that the remedies that Galen proposed were already known and

¹ "Category," or a psychological "faculty" — generally implies a faculty of cognitively produced experience.

² Rainer Reisenzein. "What is a Definition of Emotion? And are Emotions Mental-Behavioral Processes?" *Social Science Information* 46, 3 (2007): 424-428.

³ York H. Gunther. "The Phenomenology and Intentionality of Emotion." *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition* 117, 1/2 (2004): 43-55. <http://www.jstor.org/stable/4321435>.

practiced in ancient Greek and Eurasian medicine and philosophy, as in Aristotle's *Nicomachean Ethics*⁴ (which predated Galen by almost seven centuries) or Buddhist-Stoic meditative philosophies like Epictetus' *Discourses* that was published around the same time as Galen but evolved from several centuries earlier. It was well-known in the ancient world that proper cultivation of emotions inculcated the soul's equanimity (and its final salvation, in soteriological terms).

Natural emotions were expressions of a bundle of intrinsic properties of the human soul. Only educated regulation of our natural emotions — like hunger and love — could lead to the self's well-being. Emotions were increasingly recognized as indispensable or categorical means of perception by rationalist philosophers of the European Enlightenment.⁵ In post-Darwinian contexts, emotions are considered to be animal faculty. Frederick Turner considers emotions to be a source of natural law and cultural evolution: "our emotions, mediated by our hormones, neurotransmitters, and other physiological changes, were evolved to serve our individual and collective survival. Any system of laws we arrange ought to be in harmony with our emotions."⁶ The categorical definition of emotion as a psychological faculty, with its origins in natural evolution, constitutes an acceptable paradigm of knowledge on emotions to most philosophers and scientists of the last two hundred years and continues to hold a sense of utility and fascination for present-day behavioral psychologists like Paul Ekman (1992, 1999).⁷

The Embodied Display of Emotions

But the ancient literature also identified that facial and corporeal expressions indicated emotions. Ancient psychosomatic systems recommended that emotional expressions were inseparable from the moment of their appraisal,

⁴ In Roger Crisp. Ed. *Aristotle: Nicomachean Ethics*. Cambridge University Press. 2014: \$21; 1095a15–22.

⁵ Kant first developed the notion of "Categories" in philosophy. He calls emotions, especially moral emotions, a "category" of Practical Reason. See Lauchlan Chipman. "Kant's Categories and their Schematism," *Kant-Studien* 63, 1-4 (1972): 36-50. <https://doi.org/10.1515/kant.1972.63.1-4.36>

⁶ Frederick Turner. *Natural Classicism: Essays on Literature and Science*. University of Virginia Press, March 1992. The passage quoted is from an unpublished essay titled "Emotional Justice: Evolution and Natural Law," which was excerpted by Turner himself out of his classic on evolutionary aesthetics titled *Natural Classicism*.

⁷ Paul Ekman. "Basic Emotions." In *Handbook of Cognition and Emotion*, ed. T. Dalgleish and M. Power. Sussex: John Wiley & Sons, 1999. Ekman says, "...from a basic emotions approach.... one would look to find universals in expression, in physiology, and in the antecedent events for emotion," Ekman, "Basic Emotions," 46.

and evidently enough for impulses of laughter, fear, surprise or shock. The Latin etymology of *emotion* indicates some corporal-level *movement* (function) of muscles, expressiveness or even the sense of being “moved” to tears.⁸ Expressions reflect the animal’s physical reactions or adaptations to stimuli from the outside, or to triggers within the body (as is claimed in recent interoception theory). Second, emotive reflexes or mimicry, both in animals and humans, were considered as external simulations of sympathetic or antithetical rejoinders within interactive communicative systems. Emotional expressions were tabulated as individual emotion types for the purposes of mimicry or impersonation in ritual and theater. The early practice of classifying outward expressions of emotions (as mimetic types) may thus be corroborated from the history of theater. Indeed, a range of reflexes was modelled in theatrical performances, rituals, and dances, as well as in depictions on totems, masks, and visual iconography from a great antiquity. Manifest emotion prototypes were identified in treatises on theatrical performances in Greece (*vide.*, Aristotle’s *Poetics*. Chapter IV),⁹ India (Bharata’s *Natyashastra*)¹⁰ and Daoist China (Chuang-tzù’s “Outer Chapters”).¹¹ The emotion embodying masks of Greek theater evolved in Archaic Greece of the seventh century BCE from the dramaturg’s ideations of conflict, grief or comic reversals linked to situational moods and reflexes. Masks embodied what we now call the *basic emotion types of the “characters” that “experienced” (or evoked) those emotions* in the story of a play. In all these instances, we see concrete examples of how emotions were already perceived as corporal functions, rather than as experiential abstractions, in the knowledge systems of remote antiquity.

Emotion as a Tool of (Self-)Awareness

Just as emotions could be observed on the level of physical expressions, internally, emotions constituted a gateway to the knowledge of the “self,” which is a loaded word in metaphysics. Emotional awareness, or what

⁸ OED’s earliest evidence for the word *emotion* “is from 1562, in the writing of J. Shute... *emotion* is of multiple origins. Partly a borrowing from French. Partly a borrowing from Latin. Etymons: French *emotion*; Latin *emotion-*, *emotio*.”

⁹ Samuel Henry Butcher, Aristotle, and John Gassner. *Aristotle’s Theory of Poetry and Fine Art with a Critical Text and Translation of the Poetics. With a Prefatory Essay, Aristotelian Literary Criticism*. 4th ed. [1st American ed. New York]: Dover Publications, 1951.

¹⁰ Manmohan Ghosh. *Natyashastra*. Vol 1 and 2. Kolkata: The Royal Asiatic Society, 1950: 100-147.

¹¹ We refer to chapters 8-22 of Chuang- tzù’s Book. See the following edition: Chuang-tzù. *The Seven Inner Chapters and Other Writings from the Book Chuang-tzù* trans. Angus C. Graham. Boston: Allen and Unwin, 1981.

Goldman calls its close correlate – “emotional intelligence,”¹² comprises a much more effective and fine-tuned method of interpreting and making sense of not only external objects and situations but also making sense of a subjective or “self-conscious” experience that is triggered from the individual’s inner or internalized sense of being. Emotions afford recognition of one’s own conscious essence, as a culmination or constantly evolving stream of conflict and harmony of feelings – creating what is called “self-awareness.” In conventional philosophy, the last term symbolizes a transcendent life-objectivity, which suggests that all emotion complexes could be transcended for awareness of a God-state or “Self,” which may be described as beatitude, a “Buddha-state” (as Buddhist nominalists call it) or as Enlightenment philosophers like Fichte and Hegel seemed to call it – the pure absolute “freedom.” Holistic concepts as the *Ubuntu nelli*, and the Graeco-Semitic cognates *ahava* or *agape* (i.e., affect), the Athenian-Alexandrine term of *catharsis*, the Sanskrit word *mivati*, or its derivative *bhava*, which is rooted to Proto-Indo-European — **meue*, meaning ‘move,’ — symbolize what today we compare, at the heuristic level, to neural or evocative awareness states (as is being explored in PTSD studies), or to therapeutic proposals of the accomplishment of true, unforgettable well-being, similar to calm or inspiring experiences achieved through Vipassana.¹³ Ancient mind-body systems like *Yoga* or *Dao* affirm that emotions, when regulated, facilitate a distinctive awareness, a form of knowledge or self-consciousness unrestrained by anxieties. Advanced forms of emotional self-awareness in Buddhist Vipassana and Yogic *samadhi*-like states reportedly support fresh revisionist claims for curative emotive potentials like “integration” such as were introduced into modern empirical psychology by Donald Winnicott.¹⁴ Emotional well-being anticipates “self-esteem,” and prosocial decisions and commitment. Positive emotions offer favorable reinforcements to ethics and aesthetics in real-life situations. Thus, there is reason to believe that both mental and ambient, or even proprioceptive — i.e., physiologically generative — responses lead to harmonious feelings and heightened self-awareness through appropriate methods of cultivation or curation. The rich exchanges

¹² Daniel Goleman. *Emotional Intelligence*. New York: Bantam, 1998; see also, Daniel Goleman. *Working with Emotional Intelligence*. New York: Bantam Books, 1995.

¹³ Matthew Tull and Nathan Kimbrel. Eds. *Emotion in Post-traumatic Stress Disorder: Etiology, Assessment, Neurobiology, and Treatment*. Academic Press, 2020. See specific studies like: Dirk Wildgruber and Benjamin Kreifelts. “Evolutionary Perspectives on Emotions and their Link to Intentions, Dispositions and Behavior: Comment on The Quartet Theory of Human Emotions: An Integrative and Neurofunctional Model by S. Koelsch et al.,” *Physics of Life Reviews* 13 (2015): 89-91.

¹⁴ Donald W. Winnicott, “Ego Distortion in Terms of True and False Self.” In *The Person Who is Me*. Routledge, 2018: 1-7.

between Indian and Roman philosophers on emotional equanimity, in Bactrian and Hellenic periods, led to the writing of such texts as Cicero's *De Officis*, which was a treatise on the civic education of emotions and virtues.¹⁵ The Oriental philosophical influence was more directly apparent in the development of the therapeutic studies of Lucretius and later Marcus Aurelius. A global heritage of 'emotion studies' bequeathed from Asiatic-Hellenism inspires fresh approaches for a better understanding of the nuances and benefits of emotion. Revision of earlier premises and informed corrections should expedite questing, developing and retrofitting linguistic-cognitive models of emotion to the hitherto unexplored nuances of emotional life in animals and humans. There is also the underlying assumption that understanding what emotions really imply, both on the empirical and on epiphenomenal levels, could explain how they may be modelled for effective communication in society, the home, the workplace, and for interactions with machines of the future.

What to Expect from New Emotion Studies

The study of emotions has therefore evolved to this day. A legacy of thinking on emotion leads to the modern approach to emotions, communications and models of interactions for a future world where technological development will be using a more empirical model of emotions founded on a science of cognitive architectures. The authors in this volume of essays study emotions from diverse disciplinary positions to offer evolutionary (adaptive), metacognitive or logical proposals that clarify our expectations about emotions. In the essays with empirical approaches, authors offer domain-specific (behavioral or sociopolitically tested) insights about emotions, and also suggest redressals for their dysfunction. Emotional awareness, that is, emotional "knowing" or emotion epistemology of the self and the world (as opposed to rational knowing), declined in the history of science because of the primacy gained by *gnosis* over passion. The Greek word *γνῶσις*, i.e., "knowledge" or much later "cognition"¹⁶ — especially after its Cartesian appropriation — reveals an increasing trust in emotion-

¹⁵ Cicero's important observations on emotion are in (1) Cicero. *Tusculan Disputations 3 and 4*, trans. M. Graver, Chicago: Chicago University Press. 2002. (2) Cicero. *De Finibus Bonorum et Malorum*, trans. H. Rackham. London: Heinemann. 1931. Cicero. *Pro A. Licino Archia Poeta, Oratio ad Judices*, ed. G. H. Nall, London: St. Martin's Press, 1987. etc., all reflect a core of stoic teachings which emerged in the fertile intersection of Buddhist and Greek philosophical currents in Hellenic Bactria, and are perhaps more deeply embedded in Eastern thinking than ever believed by modern scholars.

¹⁶ These are linguistically cognate words with the same PIE 'kno' or 'gno' root.

independent modularity.¹⁷ Emotion never acquired the same scientific prestige after the scholarly adoption of *rational* methods in the new Enlightenment academic order of the last couple of centuries. Descartes's philosophical advocacy of rationality coincides with the technological revolution. The scholarly neglect of emotion was exacerbated by a continued transition to a more physicalist and positivist or reductionist approach to emotional disorder and healing, like in the healing of depression, anxiety, and deviant behaviors by means of sedatives and hormonal antidepressants, nor had there been any social respect for psychiatric patients. In the eighteenth century, emotional problems like schizophrenia (which were earlier believed to be tethered to spiritual causes) were now considered pathological aberrations.¹⁸ Hypothetically, emotion or mood states got relegated to questions of neurological dysfunction and pathology.¹⁹ The transcendent possibilities of emotion epistemology are completely sidelined, and their efficacy has become a theme of folklore.

Conceptualist Departures on Basic Emotion

Yet, the perspectives offered on emotions, and the belief in the etiological depths of effective communication that are explored in the essays of this book, anticipate a fresh look at the potential of emotion as a psychological tool for

¹⁷ See Charles Scott Sherrington. "Experiments on the Value of Vascular and Visceral Factors for the Genesis of Emotion." *Proceedings of the Royal Society of London* 66, (1900): 390-403.

¹⁸ See the interesting case study of schizophrenia and related conditions in *Pathomachia; or the Battel of Affections: Shadowed by a Feigned Siege of the City Pathopolis. Written some years since, and now first published by a friend of the deceased author. London.* This is a University play possibly written by Henry More, and an example of the interest in affects, yet from a Humanist viewpoint. One should look at Timothie Bright, *A Treatise of Melancholie.* London, England: Vautrollier. 1586., to consider how in England the idea of treatment for a happy mind was shifting from the strong authority of the ancient Galen toward the Galen of contemporary England Robert Burton (author of the famed *Anatomy of Melancholy*, first published 1621). Burton incorporates his advanced knowledge of dysfunctional traits and their cures with the help of pharmacological and medicinal interventions in the *Anatomy*.

¹⁹ "The ... 18th-century shift from spirits and blood-humors to the nerves as the principal site of the emotions. Physicians and laypersons alike began to associate emotions more closely with the peculiar nervous sensibility and irritability of individuals and groups." Michael Stolberg. "Emotions and the Body in Early Modern Medicine." *Emotion Review* 11, 2 (2019): 113-122. See also H.J. Diller, "Emotion" vs. "Passion." The History of Word-Use and the Emergence of an A-moral Category." *Archiv für Begriffsgeschichte* 52, (2010): 127-151. Then there is Harvey's classic which introduces the first precepts of blood-circulation and physiological laws. See, William Harvey. *Oratio anatomica de motu cordis et sanguinis in animalibus.* Frankfurt am Main, 1628: 17.

human expansions and experience in a newly organized world. The initial section of this book deals primarily with the rock concept of emotion and explores several ways in which empirical emotionality must be understood as a material or epistemological function. In other, more disciplinary approaches, observations based on language analysis and syllogistic reasoning are employed to explain how emotional enunciations are generated in the public sphere and thereafter accepted or used in actual communicative environments. The initial essay, therefore, initiates a revision of the fundamental tenets of a behavioralist approach to emotion. The author undertakes a survey of the concept of “basic” emotions as it grew from Darwinian evolutionary theory. In the last 50 years, a decisively cognitivist position on “basic” emotional states was suggested by Paul Ekman. The “basic” states came to serve as the most primordial architecture of the cognitive-behavioural system. The theory of built-in modularity of emotions was extended by Ekman to include micro-emotional animal reflexes or microtones of emotions. The basic emotion theory (BET) branched effectively into a functional model for applied psychology and its specialized subdisciplines, such as criminal psychology. The architecture of basic emotions has been developed by BET theorists²⁰ like Eckman (1992),²¹ Levenson (2011),²² Keltner, and his colleagues (2019).²³ Yet the author shows that in the last two hundred years of studies on basic emotion, from Mouere, the French biologist of the sixteenth century,²⁴ and Darwin²⁵ alike to contemporary BET theorists, there is no reference to *aesthetic* emotions as a separate category of emotions. The significance of this conclusion that basic emotions need to be broadened to include “aesthetic” reflexes is immense. Tirtha Prasad Mukhopadhyay’s essay *Emotion According to the Ancients*, with its proposal for the recognition of a concrete aesthetic emotion-category, points to deficiencies in that model. The same Basic Emotion prototype can be valenced on a third axis of the emotion-valence experience, implying that the same “basic” expression types — like “fear” or “anger” — may be realistically excited but also aesthetically simulated on an axis of positive and curative perceptions. Basic emotions have

²⁰ D. Keltner, Jessica L. Tracy, Disa Sauter, and Alan Cowen. “What Basic Emotion Theory Really Says for the Twenty-first Century Study of Emotion.” *Journal of Nonverbal Behavior* 43 (2019): 195-201.

²¹ Paul Ekman, *Are There Basic Emotions?* 1992: 550-553.

²² Robert W. Levenson. “Basic Emotion Questions.” *Emotion Review* 3, 4 (2011): 379-386.

²³ Keltner *et al*, “What Basic Emotion Theory Really Says,” 195-201.

²⁴ Johann Caspar Lavater. *L'art de connaître les hommes par la physionomie: ornée de 600 gravures en taille-douce*. Vol. 1. Depelafol. 1835.

²⁵ See Paul Ekman and Charles Darwin. *The Expression of the Emotions in Man and Animals*. New York. 1998: 8. Darwin discusses Moreau’s treatise *L'Art de reconnaître les hommes* in the “Introduction” to *The Expression of Emotions*.

isometric three-dimensional multimodality, with valenced aesthetic excitation as an additional property. Thus, the same emotion may be appraised aesthetically on another scale of effects in human actions. Such valenced and enjoyable excitations are always visible in iconic cultural or ritual artefacts and celebratory festivals in collective or social contexts.

Dualism, Reality, and Inter-Personal Emotionality

Revision of philosophical questions is now imperative as new empirical knowledge on emotions has accrued. Humans may be inherently moral and communicative beings. This fundamental proposition is examined by Japanese philosophers such as Shoji Nagataki and Tatsuya Kashiwabata, who make comprehensive references toward phenomenology, analytic philosophy and cognitive science on a new spectrum of theories about emotion and communication. Both of them refer to strategies within communication systems that they have identified through their individual and collective research in Japan's academic institutions in Nagoya and Tokyo; their theoretical contributions are also firmly situated within the broader framework of communication science research in Europe and, increasingly, also as it evolves throughout Japan and Asia, especially in contexts of the recent development of machine learning and computational systems. It is worthwhile that we have brought together a selection of chapters that offer adjustments to some of the assumptions on the primitive view of emotional interactions. The revisions to primitive or natural emotion-evocation modules have implications for neural networking, but more so because they retroactively shed new light on emotional communication. For example, perspectives developed by essayists of this volume are based on discoveries made by Husserl, who shows that all human knowledge is constrained by subjective appropriations. After Husserl, Merleau-Ponty declares the importance of body-centred subjectivism. Following Husserl, Merleau-Ponty effects a shift in the philosophical understanding of the "Self." Merleau-Ponty is consistent with the empirical information being harnessed by psychobiology and neuroscience in the same epoch as Husserl derived a notion of the "self" as a phenomenological construct. Merleau-Ponty's ontological proposal suggests that acts of comprehension are oriented by the body's inter-relationship with a physical environment and that there is a constant inter-subjective back-and-forth that generates the entire splay of sensations in a certain given, and including what may be a transcendentally significant world. Furthermore, in his article *The Self as a Surface Phenomenon: Emotion and its Bodily Expression*, Nagataki demonstrates that the Scheler-Merleau-Ponty tradition of embodiment phenomenology has achieved a decisive breakthrough beyond modern concepts of subjectivity — such as the

Cartesian notion of a hidden ego — through its focus on emotions as phenomena that are simultaneously mental and manifestly corporeal.

The world that Husserl calls the life-world came back in Heidegger's momentary philosophy in *Sein und Zeit*.²⁶ This is the massive change in perspectives from a more archaic idea that the emotions were somehow generated solely by or inside of the organism. There was no further clarification regarding the fact that these body-generated cognitive states were actually also dependent on information or sensations that were coming from an external world. After Merleau-Ponty and Heidegger's contributions, it was no longer possible to consider emotions as anything other than moments within an interconnected behavioural matrix of social and environmental realities that continuously impacted upon a consciousness evolving in time. Merleau-Ponty's specific contribution recommended that emotions had to be placed in a context of inter-relationships.²⁷ Body-mind subjectivism and its branches in environmentalist intersubjectivity have therefore had a profound influence on how philosophers think about emotion and communication. Nagataki and Kashiwabata's insightful essays on the inter-subjectivity of the "self" and a corresponding inter-subjectivity of emotional life demonstrate how we make meaning in a world (by means of emotional cognition) in which we are extrapolated by media and other kinds of digital technology. Nagataki's article, grounded in the phenomenology of embodiment and cognitive science, and Kashiwabata's, founded on Davidsonian theory of action, demonstrate how emotional life is played out in the real world. In their respective theoretical approaches, the authors do not defining a single emotional process since there may actually be no one kind of uniquely "basic" Ekmanian emotion at work in our mental-corporeal reality, but rather an emergent (or entropic) network of neural systems or training retinues of mixed or implicit relations. Human emotions may be event-oriented towards appraisal, and may also be, in effect, evoked by modulated discharge of neural triggers, some of which may also be internally (psychosomatically) regulated by physiological processes. How emotions are triggered and appraised will also explain how subtle, variant and diversely transient complexities of emotional states are *predicted* in real-life situations. The authors of this book are concerned with how domain-centered emotional modules are symbolically appraised by means of physiological, i.e., psychosomatic or interoceptional, mediation, and how, as such, they build discrete existential *Umwelts*. Tatsuya Kashiwabata, in his essay on communicative emotion *Communication, Emotions, and Morality: Cases of*

²⁶ Dan Zahavi. "Merleau-Ponty on Husserl: a Reappraisal." In *Merleau-Ponty's Reading of Husserl*, ed. Ted Toadvine and Lester E. Embree. Dordrecht: Springer Netherlands, 2002: 3-29.

²⁷ Emiliano Trizio. "Husserl and the Mind-Body Problem." *New Yearbook for Phenomenology and Phenomenological Philosophy* 11, (2012): 1-15.

Humans, Animals, and Artificial Intelligence, confirms that the language of communications comprises a neural-memorial continuum of a long, historical and morally configured context of communications. Organismic interdependence of the communicator on his or her context of communication is necessary for any successful, morally relevant communication to occur. The question of emotion simulation, or how emotions are evoked and function, is relevant to the ethical values associated with Machine Learning and AI in emotive communications of the future.

Approaching Emotions in Terms of Interoception and Cognitivism

Language analysis helps us understand how emotions exist in our life-world and function in communication. There is consensus among theorists that emotions are codifiable (logical) statements and may be broken up or programmed back through logical analysis. Again, it may be true that — as language analysts believe — all language-based utterances involve the appearances of emotions in communicative strategies. Hideki Ohira, in *Computational and Neural Basis of Interoception, Decision-making and Affect: Basic Mechanisms and Clinical Applications*, demonstrates how interoception analysis may be related to emotional output in understanding the ways we emote and possibly appropriate a feeling-world for ourselves. Such insights are helpful for understanding the causal networks that determine stressful emotion processes resulting from physical limitations and impairments. Ohira's neural networking paradigm will provide readers with crucial empirical grounding for deconstructing the cultural, historical, and philosophical perspectives on emotion for a positivist psychological constructivist theory of the emergence of emotions. The founding assumptions of constructivism are indeed complex and based in interoception, imbricating levels of reflexes in the bodily state that affect neural excitations and networking for a parallel apprehension of affective conditions. Although Ohira does not offer conclusive solutions he does good service to the discipline of body-oriented clinical emotion philosophy by enunciating very clearly that the essay "does not provide explanations or predictions for concrete psychological and physiological indices in real situations, the model is useful in providing an integrated description of the functions of the brain and body and explaining accumulated empirical findings on emotions." In a way, Ohira's integrated approach also breaks down some of the universal assumptions of Basic Emotion theory, just as Mukhopadhyay approaches Basic Emotions to raise empirical questions about the experience that underspin the post-Darwinian view of emotions. Toshihiko Miura, in *Emotion and Cognition in Gender Dysphoria*, analyses emotional reflexes to determine feelings of gender identity.

But at the same time, the role that humans play within their surrounding collectives, and cultural, social, and political vistas involves overlapping forms

of communications from various spheres of expression like culture, religion, law or civility. Miura offers a set of claims for a cognitivist (body-involving) model of gender identity, where the consciousness of identity is verified as part of an interpretive process, more like post-modern assumptions of identity and feelings of the same. Miura suggests that if the various cognitivist claims about identity can be defended, it would at least be impossible to restrict gender identity solely to bodily claims, as it is susceptible to changes in non-biological categorization, by means of role-playing or otherwise. We could also explain and thus redress Gender Dysphoria in a manner that goes around cognitivist classifications of feelings. Miura examines each of the nine options he enlists, one by one, and then considers a non-cognitivist model; that is, a model that interprets Gender Dysphoria through emotions and performative actions, rather than cognition, and inclines to the idea that emotive appraisals are a fundamental part of gender identity, like all other modes of social identity and role-playing models.

Artificial Intelligence to Artificial Emotions

The recent debates on artificial intelligence have also invited a question of unending interest — can the machine ever simulate or achieve human intelligence? It has likewise led to the question of whether machines would ever successfully simulate or achieve human-like emotions during communication. Of course, the question is closely linked to the idea of modular language, which might interactively generate emotions. AI sceptics opine that the volume of layered programming required for a definitively humane and emotional communication to emerge would be so enormous that it could be practically ruled out. If artificial emotions are a theoretical possibility, they can never become achievable under the limitations of hardware that is imposed on the problem from outside. The counterargument in this respect is that other heuristic methods may provide alternatives to the semantic understanding of emotions. The answers to these questions are not yet fully known in science. No extensive algorithmic programming has yet been developed to suggest whether machine learning can actually pick up emotional cues from contexts analogically similar to those in which zero-shot programming is used for cases of pattern recognition. In the essay by Mario Verdiccio, the problem of intelligence has been considered from solid empirical foundations to assess whether a post-human, emotionally communicative machine can be developed through evolution.

The Prosocial Antecedents of Emotions

A group of scholars led by Jose Ignacio studies the effect of emotions in the context of competitive rewards and situations. Statistical analysis of motor

reflexes in response to emotions is used to create a map of emotional effects. Authors draw from the perspective of sports philosophy and consistently maintain that emotional well-being is facilitated by sports such as competitiveness. In the Olympics, for example, guided normative pleasure-seeking competitiveness leads to better performance and self-esteem. Sports and competitions have accordingly always been part of life. This is evinced in prehistoric societies such as those of the Mesoamerican Aztecs, but also in more historically known societies like that of the Greek-Athenian civilisation, which promoted gymnastics and competitive sports for the well-being not just of the body but also of the mind. Sports have been an intrinsic aspect of Eastern cultures. Archery and martial arts have augmented concentration, productivity, resilience and above all, pleasure. Sports philosophy recommends competitiveness as a healthy attribute of human life. In psychosocial contexts, meaningful and healthy practice of emotional well-being promotes prosocial behaviours.

Another context that allows us to study how humans interact emotionally under collective stress was induced by the COVID-19 pandemic of 2020. The coronavirus spread as a global pandemic, with its associated fallouts like home isolation and lockdown. The breakdown of interpersonal contacts and communication was often achieved by means of political coercion or violence. It has been difficult to gauge the effects of a pandemic on human empathy, medical care, and services, and geriatric care. Nonetheless, observations show that even under the stress of isolation and fear of contracting the virus, people have been able to sustain themselves with the help of guidelines from organised groups and service sectors. Sonia Gondim considers a host of variables, suggesting that emotions coexist with a moral sense of shame, guilt, or social justice and have continually been at work times of isolation and stress. Morally responsible behaviour cannot be ruled out even during a time of demand, and anxiety, especially a consciousness of self-conservation and threat of diseases or terminal illness. The prosocial character of emotions is evinced in the role played by emotions in human adaptation. Emotions can guide human behaviour even when threats to life emerge in the biological environment. Hence, such studies are both empirically important and epiphenomenally significant as they show us that emotions control, modify and help individuals re-integrate and adapt to the demands of the greater *habitus*. This is also true of the emotion of nostalgia. In an interesting interdisciplinary study on prosocial behaviours, Javier Gonzalez develops the theme of nostalgia, again a very ancient thematic subject in emotion studies. Gonzales concludes that nostalgia is one of those emotions that helps in restoring the individual's self-esteem by orienting the individual to the memory of past events. These memories may be generally filtered for pleasure and reinforcement. Nostalgia may be a positive emotion that reinforces collective prosocial behaviours.

Conclusion

Thus, all in all, this collection of essays suggests new pathways to the observation, study and understanding of the emotion-phenomenon. Built on the distinctive premises of their approach, each chapter is uniquely designed to reveal what emotions might mean and how they function in a scheme of appraisal. But the common revelation here is that emotions are integral to meaning and the source-springs of knowing or building. Emotions may also transcend epistemological limits to reveal what they really imply for evolution—the fact that they tug at intraspecies adaptation and help in the development of extraordinary intuitions.

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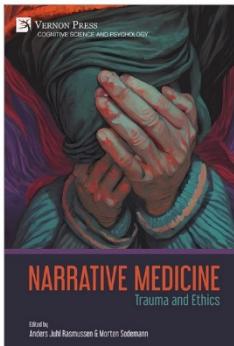
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