How does the experience of hearing someone speaking differ from the experience of either imagining or remembering it?

*Real Hallucinations. Psychiatric Illness, Intentionality, and the Interpersonal World* is Matthew Ratcliffe’s attempt to answer this question. In fact, the analysis of auditory verbal hallucinations (AVH) and thought insertions (TI) allows him to pursue a twofold broader aim: to provide an account of the modal structure of intentionality, and to explain how this structure – and consequently the features of both experience and thought – is shaped by subjects’ interpersonal relations. In doing so, Ratcliffe brilliantly links phenomenological analysis and empirical studies to debates from various philosophical traditions.

One of the most significant merits of *Real Hallucinations* is that it overturns the traditional philosophical approach to hallucinations. Indeed, philosophers have mainly conceived of hallucinations in terms of “possible” – rather than “actual” – experiences, that are indistinguishable from veridical perception while happening in the absence of the corresponding external object. Such a conception of hallucination has been central to several philosophical arguments, and yet *Real Hallucinations* indicates that the study of actual hallucinations is at least equally philosophically relevant. In particular, Ratcliffe effectively shows that real hallucinations are not (or not necessarily) indistinguishable from their perceptual counterparts, and he argues that they should be rather understood as intrinsically odd experiences. The oddity of real hallucinations is due to special characteristics of such experiences, which Ratcliffe regards as “mixed states”, where a content with aspects typical of a given intentional state would be paired with the sense of being in another kind of intentional state, and conflicting attitudes would be «simultaneously adopted in relation to the same content» (p. 62). To support such a claim, he focuses on specific occurrences of AVHs that seem to have little or no sensory content to the extent that they correspond to experiences of thought insertion. The content of such experiences «may continue to resemble that of a thought, but it somehow affects one in a way that is more like that of a perception. In other words, one has something of the sense of perceiving [...]» (p. 63).

If Ratcliffe is correct, in order to account for the sense of being in a perceptual state, it is not enough to appeal to either the intentional content or the intentional attitude (or a combination of the two). Rather, «the prereflexive ability to discriminate between types of intentional state can be construed in terms of access to a modal space [...]» (p. 20) that, in chapter 2, is argued to be central to the most basic sense of self, and to be both «developmentally dependent on interactions with other people» and «interpersonally sustained» (p. 17). Drawing on Husserl’s idea that the perception of an object involves the appreciation of a «characteristic horizon of possibilities, a structured system of potentialities for ongoing perceptual access» (p. 123), Ratcliffe argues that «the sense of being in a given type of intentional state depends, to a significant extent, on the temporal structure of experience and, more specifically, on patterns of anticipation fulfillment» (p. 164). When we perceive an object, we experience it as being potentially accessible by others, through other sensory modalities, from different perspectives, and – Ratcliffe adds – as being possibly involved in both our and others’ goal-directed actions. These possibilities take the form of immediate anticipation, and they delineate the typical structure of perceptual experience as a dynamic process of anticipation and fulfillment: «as possibilities are actualized (through one’s own actions, the actions of others, and/or impersonal events), other possibilities are revealed, and so on» (p. 124). This structure corresponds to the phenomenological datum that in perception we experience things as “really there” – what Ratcliffe refers to in terms of a combination of “sense of presence” and “sense of reality”. The temporal profiles of intentional states other than perception are then to be understood as departures from this structure. Imagination, for instance, typically has a less cohesive and structured anticipation-
fulfillment profile, and «the imagined entity does not call out for further exploration in the way a perceived entity does» (p. 164).

Ratcliffe further shows that for us to grasp the various temporal profiles, the local anticipation-fulfillment patterns have to be «embedded within an all-enveloping anticipatory structure that is not itself a form of intentionality» (p. 4). Indeed, although our anticipations are not always fulfilled, and neither are they always unambiguous, unfulfillment and ambiguity are experienced as anomalies, thus giving rise to disappointment and doubt. Drawing on Husserl's notion of certainty and Merleau-Ponty's notion of “belonging to the world”, Ratcliffe’s claims that disappointment and doubt would not arise if the localized experiences and thoughts were not embedded within a “global anticipatory structure”, a temporal pattern that pervades all experience and makes it possible. In other words, «our grasp of what it is for something to be present or not present, and, more generally, for it to be the case or not the case, presupposes a habitual style of immersion in a situation» (p. 130). Such a “global style of anticipation” – in Ratcliffe terms –, is associated with an affective element, namely “confidence”.

In this context, AVHs arise, facilitated by a change in the global style of anticipation, as local disruptions of the modal structure of intentionality. At the local level, Ratcliffe stresses the triggering role played by anxiety. Expanding on the failure of the source monitoring account of AVHs, Ratcliffe argues that voices would be cases of inner speech that are anxiously anticipated. In particular, «an unpleasant emotional content p […] provokes anxious anticipation of the linguistic content q, that is elicited by p and consistent with p» (p. 89). Because anxiety presents its object as unpleasant and unfamiliar, the thought that q is experienced as alien. Since anxious anticipation is a style of anticipation typical of «certain affectively charged perceptual experiences» (p. 89), the thought-content q is accompanied by a sense of being in a perceptual state. The broader context that makes such local disruptions possible, on the other hand, is what Jasper calls “delusional atmosphere”, and it is explained by Ratcliffe in terms of Husserlian certainty. Here, trauma plays a central role: while habitual anticipation has the affective style of confidence, severe trauma leads to loss of trust and, consequently, to pervasive doubt and all-encompassing uncertainty, resulting in the disruption of the modal structure of intentionality. As a result, the anticipation-fulfillment structure of perception would become closer to that of imagination, thus leaving one more exposed to the risk of localized disruptions. Ratcliffe stresses the role of interpersonal relationships, in this context, by arguing that trauma leads to disastrous consequences in particular when it is caused by other people. Since our perceptual experience is largely shaped by habitual trust in others, a change in the way one relates to others is particularly likely to lead to erosions of the modal structure of intentionality.

Real Hallucinations has the essential value of stressing the need for a more complex taxonomy of experience, one that would provide, for all types of intentional states, «an inventory of characteristics that are individually necessary and jointly sufficient for the ambiguous, unambiguous, conflicted or nonconflicted sense of being in an intentional state of that kind» (p. 224). However, Ratcliffe seems also to suggest that subtle changes in the structure of intentionality cannot be captured – and are on the contrary ultimately obscured – by the «artificially tidy philosophical language that identifies categorical distinct intentional state types» (p. 225). Although this remark correctly identifies the dismissal of important phenomenological nuances typical of a certain way of doing philosophy, if taken to its extreme consequences it would imply the impossibility to categorize intentional states altogether. It is true, for instance, that for a long time philosophers have conceived of intentional states in idealized and abstract terms. Such an approach to intentionality might have led to oversimplifications, an instance of which is the trend to reduce hallucinations to one or another kind of typical intentional state, namely perception or – more recently – imagination. Real Hallucinations shows that, if we at least want our taxonomy to be informative of actual experiences, we shall consider single instances of intentionality as integrated within a broader system of experiences and thought. Precisely the view of intentional states as interrelated and at least partly dependent on the subject’s background experiences is, in my opinion, one the most interesting and original contribution of Real Hallucinations. While the dominant trend in philosophy of mind – on the heels of the
mainstream tendency in epistemology of regarding the subject as a perfect knower – is still that of investigating intentionality irrespective of the context in which an intentional state occurs, Ratcliffe puts the subject, its current and past experiences, and its interpersonal relations back at the center of the investigation.

In so doing, however, Ratcliffe may run the risk of overlooking the methodological intricacy of such an undertaking. In the first place, a phenomenological investigation of real hallucinations necessarily relies on verbal reports, which can be more or less reliable depending on different factors such as, for instance, the introspective – and linguistic – skills of a subject. Moreover, a purely phenomenological approach to intentionality is based on the disputable assumption that every aspect of a given experience is phenomenally accessible to the subject. In the introduction, Ratcliffe recognizes that «phenomenology alone does not always suffice to determine one’s actual intentional state» (p. 2) and anticipates this line of criticism stressing that *Real Hallucinations* is «phenomenological in emphasis» (p. 2), and therefore non-phenomenal aspects are irrelevant to his argument. However, it cannot be simply ruled out that non-phenomenal aspects might influence the overall phenomenology of the experience in ways that are not accessible to the subject. For instance, if the goal is to understand what the sense of being in a given intentional state is and how it arises, and if it is admitted that it depends importantly on other mental states, phenomenally inaccessible aspects of past (or co-occurrent) experiences might significantly influence the phenomenology itself of the state under consideration. Furthermore, even granting that non-phenomenal aspects are irrelevant to the investigation of experience, a certain level of abstraction seems to be hardly avoidable. For instance, the description of conflicted states would require a clear-cut and therefore idealized definition of typical cases of standard intentional states (e.g., perception, memory, imagination) and of their features. In order to tell what aspects of what kinds of intentional state come together in conflicted and ambiguous experiences, we need to make categorical and somehow artificial distinctions not only among different kinds of intentional states, but also among the different aspects of a given experience and their unique contribution to the overall phenomenology. Similarly, it is unclear in what way we could investigate how and to what extent an experience is affected by other intentional states without artificially isolating it from past and future experiences, and from co-occurring intentional states.

Certainly, however, a complete and satisfying taxonomy of experience goes way beyond the scope of *Real Hallucinations*, which has the undeniable merit of highlighting the complexity of human experience, and of demanding to anyone genuinely interested in bridging the gap between phenomenological accounts and other more objective ways of describing intentionality, to be aware of such complexity.

Veronica Valle
Faculty of Arts and Humanities
University of Macau
(or circuits), mostly involving anatomically ancient structures. To find these underlying mechanisms, classify and methodically investigate the influence they have on the behaviour of animals, has been one of Jaak Panksepp’s most important contributions to the fields of neuroscience and psychology. In essence, he gave birth to the field of Affective Neuroscience.

Affective Neuroscience is the study of the subcortical affective BrainMind (the term Panksepp used to underline the assumption of monism). One of Panksepp’s main works, The Archaeology of Mind: Neuroevolutionary Origins of Human Emotions, offers an evidence-based taxonomy of the seven primary emotional systems that explain why and how we behave the way we do. These systems have been found to be common across all mammalian species and constitute effective evolutionary solutions for successful animal life on earth. The seven circuits (and corresponding behaviours) Panksepp identified in his research are: SEEKING (exploration, motivation), RAGE (anger), FEAR (anxiety), PANIC (sadness), PLAY (joy), CARE (nurturance), LUST (sexual arousal).

In fact, since the primary emotions that are generated in those systems have intrinsically pleasant or unpleasant affects, they have a learning-facilitating function that is basically a “birthright survival system” for all mammals. This has already been thoroughly demonstrated by Panksepp (see J. PANKSEPP, L. BIVEN, The Archaeology of Mind, W.W. Norton Company, 2012) using a variety of methods. For example, he showed that the artificial stimulation of some of those systems can be used as reward/punishment in a behavioural task with high effectiveness. The system of PLAY for instance, when activated, produces an internal state so pleasing that the animal actively seeks it; connecting the pressing of a lever (or whatever action needs to be trained) with the stimulation of this system leads to the reinforcement of that behaviour. Since the way we react to external stimuli, both in terms of our explicit behaviours and our internal states, can be considered to constitute our personality, these subcortical systems are the causal mechanisms that give rise to personality. Hence their importance in Panksepp’s work.

The theory of personality built on the principles of affective neuroscience proposes the existence of endophenotypes, which are primary emotional-affective personality profiles generated initially from our individual genomes; LUST has been inexplicably excluded from the systems that define our personality. Items in questionnaires such as the Big Five Questionnaire (BFQ) do not tap directly into the primary emotions that define endophenotypes, hence cannot be used to measure them. However, the Affective Neuroscience Personality Scale (ANPS) was specifically built to test Panksepp’s hypothesis that such endophenotypes exist. Its items are very explicit in asking about primary emotions so that only a minimum degree of cognitive processing is required to answer. Of course, ANPS is only a language-based report. More direct data will be needed to support Panksepp’s view, which, given the present level of technology, is still difficult to obtain. The ANPS is composed of 112 items arranged in fourteen blocks that include one question for each system plus one related to Spirituality and a filler research question; the complete version can be found in the appendix of the book.

One of the main problems identified in clinical applications of the BFQ is the genericity of the factor Emotional Stability, which lumps together an array of negative affects, that correspond to activity in the FEAR, RAGE and PANIC emotional systems. Considering that the extremes of each of these emotions lead to different psychopathologies, it is important that the tests we use can distinguish between them. A person might have considerable issues in controlling anger but not suffer from depressive feelings and/or anxiety. Yet, this simple example would result in a medium to high score in the Emotional Stability factor, which does not give the clinician any insight whatsoever into the specificity of the patient’s sufferings. The Affective Neuroscience Personality Scale, instead, classifies symptoms on the basis of the dysregulated emotional system that brought them about. For this reason, the resulting scales are more useful for diagnostic purposes than the Emotional Stability factor in the BFQ.

Considering the shortcomings of the Big Five model and the fact that Panksepp does not rely on it but developed the ANPS as an alternative scale to measure personality, it is perhaps strange that such a large portion of the book is dedicated to it. However, the attention he devotes to the Big Five is justified by the deeply-rooted position this model holds in the field of personality psychology worldwide; to challenge such a pillar of the field requires extensive discussion of its merits and
flaws, otherwise the author’s proposal for a new system would lack legitimacy.

As Panksepp underlines in the chapter on Epigenetics and Psychopharmacology, the new model for personality has had an enthusiastic reception as well as many successful applications. Biotechnological studies have shown that personality traits acquired through epigenetic mechanisms are among the characteristics which can be inherited. Spending quality emotional time with parents can, thanks to epigenetics, promote the development of these emotional systems in such a way that reduces the incidence of problems like Attention Deficit Hyperactivity Disorder (ADHD) and the necessity for pharmaceutical treatment later on. The same principle applies at a cultural level: in play-promoting environments, the PLAY system is more stimulated and becomes stronger, providing a protective factor against the development of personality related disorders. This feature is also inheritable due to epigenetic mechanisms.

In the field of neuropsychopharmacology, the research conducted on the mammalian BrainMind on the basis of Panksepp’s model has led to the development of three new antidepressant treatments: the molecule GLYX-13 for the treatment of depressive symptoms has already passed toxicology tests and is having significant effects; deep-brain stimulation (DBS) of the SEEKING system is effective in counteracting major depression symptomatology, up to the point of eventually reversing it; and the opioid buprenorphine has been shown to be highly effective for the treatment of suicidal thoughts deriving from hyperactivity of the PAIN/Sadness system.

The Emotional Foundations of Personality can be considered a textbook, both in terms of its content and structure. The background topics, especially Affective Neuroscience and the history of personality studies, are discussed in the beginning of the book, providing the necessary foundation for the more technical chapters at the end, which present neuroimaging studies and evidence from the field of neuropsychopharmacology. The book is structured in a way that allows the reader to peruse any chapter independently of the others. On the one hand, this is positive as the reader can focus only on the sections they are particularly interested in; on the other hand, the price paid for the independence of the chapters is a certain repetitiveness: the most crucial information is examined time and again throughout the book, excessively prolonging the reading experience, which, at times, can also feel a little fragmented.

In spite of this, Panksepp’s work is certainly worth reading. This insightful book not only puts forward a fascinating new approach to personality theory but also provides a thorough account of all the steps taken to make it useful also for clinical purposes. At various points throughout the discussion, the author states that further research is needed to develop the field of Affective Neurosciences and to improve its clinical applications; still, plenty has already been done. To all interested in knowing more about the subject, Panksepp’s book and the twenty-eight pages of references included in it are undoubtedly a very good starting point.

Jacopo Baldi
Dipartimento di Psicologia e Scienze Cognitive
Università degli Studi di Trento