Experience of Reality a Conceptual Framework and its Implications

Dr. Enrique Aramendia-Muneta

ABSTRACT

The experience of reality (EoR, sometimes also known as subjective veridicality) is a relevant part of our everyday conscious experience. EoR holds the potential to shape reasoning, reporting, and acting. EoR helps us navigate goals, but it also can be an instrument for social control and manipulation, and may contribute to explaining phenomena such as gaslighting, epistemic stubbornness, or fake news dissemination. Here, I propose a distinction between three types of EoR: EoR out there, EoR of the experience itself and EoR somehow (which is a kind of experience of just reality, with no related content). I also put forward two key ideas concerning EoR. First, I argue that EoR is not always aligned with reality. In other words, the content we experience as real does not always correspond to what is really the case. Therefore, even though misalignment can be reduced through a diverse range of dynamics, the succession of the processes of acquisition of sense data, alignment dynamics, objective veridicality, and subjective veridicality is not a one-way, transitive, straightforward pathway. Second, I identify a rare but significant exception to this rule: EoR somehow. Since EoR somehow lacks content, it admits no misalignment. The existence of such a kind of experience suggests that the processes that underpin EoR are specific, interacting but not fully dependent on content.

Keywords: experience of reality; perceptual presence; reality; subjective veridicality; object veridicality; process; pure consciousness events misalignment; hallucinations.

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The experience of reality (EoR, sometimes also known as subjective veridicality) is a relevant part of our everyday conscious experience. EoR holds the potential to shape reasoning, reporting, and acting. EoR helps us navigate goals, but it also can be an instrument for social control and manipulation, and may contribute to explaining phenomena such as gaslighting, epistemic stubbornness, or fake news dissemination. Here, I propose a distinction between three types of EoR: EoR out there, EoR of the experience itself and EoR somehow (which is a kind of experience of just reality, with no related content). I also put forward two key ideas concerning EoR. First, I argue that EoR is not always aligned with reality. In other words, the content we experience as real does not always correspond to what is really the case. Therefore, even though misalignment can be reduced through a diverse range of dynamics, the succession of the processes of acquisition of sense data, alignment dynamics, objective veridicality, and subjective veridicality is not a one-way, transitive, straightforward pathway. Second, I identify a rare but significant exception to this rule: EoR somehow. Since EoR somehow lacks content, it admits no misalignment. The existence of such a kind of experience suggests that the processes that underpin EoR are specific, interacting but not fully dependent on content.

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> *Morpheus: This is your last chance. After this there is no turning back. You take the blue pill, the story ends. You wake up in your bed and believe whatever you want to. You take the red pill, you stay in Wonderland, and I show you how deep the rabbit hole goes. Remember, all I'm offering is the truth. Nothing more.*
>
> *Neo: And how will I know that you are not fooling me?*

I. INTRODUCTION

You wake up. Draw the curtain. Everything is there, in its right place. Just the way it was yesterday. There is a proper alignment between what you feel that is out there, what you believe that is out there and what is really out there, overt for you and the others. Now you are having your breakfast. Coffee, bread, and butter. Some breadcrumbs have fallen onto the kitchen floor. You have Parkinson's disease, and you feel as though some ants are walking on the floor between your feet. Alignment fades away.[1]

Generically, the term experience of reality (EoR) refers to the conscious experience of something as really being the case. The debate about the experience of reality (EoR) has typically focused on the question about presence, that is, the question about whether our senses are genuinely revealing some presence out there or they are just deceiving us.[2] Hallucinations and illusions

[1] Visual hallucination is, by no means, a general symptom in all Parkinson's patients. Still, it is relatively common, particularly in the form of kinetopsia and object misidentification (Nishio, Yokoi et al. 2018). There may be a relationship between impaired saccadic movements in Parkinson's patients and the occurrence of visual hallucinations.

[2] This is nothing new (cfr. Dorsch and Macpherson 2018). In fact, the reliance of sense data has been a main worry in epistemology since Aristotle. A renewed interest has been gained from the naturalization and even algorithmization of attribution of sense sources coming from predictive processing and other techniques based on neural networks. See Friston (2010), Seth (2014) or Dijkstra, Kok and Fleming (2022).

constitute two cases where the alignment between what I feel is out there and what is really out there fails. For instance, some Parkinson's patients may feel the ants crawling on the floor, even though there is really no ant, but just breadcrumbs. Delusion reflects another factor, namely, that hallucinations are sometimes accompanied with beliefs and even confabulations about the causes of this apparent presence. For example, a person suffering from hallucinations may make up explanations to justify those perceived presences. However, the EoR encompasses more than just experiences about presence in the external world. For instance, someone may experience the reality about their own experience, that is, about the fact that is a subject and is having an experience.[3] In these cases, misalignments are less common, but still possible. For instance, individuals with schizophrenia may experience their thoughts as not indeed their own but being inserted by an external agent or an inner voice Similarly, people with PTSD (Post-Traumatic Stress Disorder) can experience episodes of dissociation where beliefs, desires, or even behaviors may be felt as disconnected from the self.

Why is the analysis of EoR necessary? Why should we be interested in EoR rather than solely in reality itself? To begin with, there is a pragmatic reason. The EoR is itself real. Therefore, the EoR helps explain our biases towards some contents and not others. This understanding is crucial for addressing pressing issues both at a personal level and at a social level. At a personal level, the EoR has explanatory roles for phenomena such as vividness (the sensation of being alive and awake), epistemic stubbornness (the refusal to change beliefs despite being poorly justified), or gaslighting (a form of manipulation that forces the person to question their perception of reality). At a social level, the explanation of phenomena such as post-truth, social control, or the tendency to elaborate conspiracy theories may leverage the specific dynamics that define the relationship between EoR and reality itself and, especially, its flaws.

[3] This is also nothing new. Cartesian cogito can be understood as a kind of experience of reality of the experience itself as thought.

However, there is also a philosophical reason for analyzing the EoR. The EoR has been a central concern in philosophical studies, from the cogito to the very nature of reality itself. It would be a mistake to banalize these questions by imposing rigid boundaries between EoR and reality in the name of objectivity. The EoR is part of reality Hence, it has a functional role that should not be neglected.

This paper presents an analytic approach to the experience of reality. It is divided into three main parts. In Section II, I will focus on establishing a consistent conceptual framework for EoR from a processual and realistic perspective. I will propose a taxonomy that comprises three main kinds of EoR: *EoR out there*, *EoR of the experience itself* and *EoR somehow*. This taxonomy is significant because it contributes to appreciating that EoR is richer than it may initially appear, and that not all types of EoR deal with content out there, nor with the distinction between subject and object.

This taxonomy also shows how EoR and objective reality do not always align. In Section III, I will discuss the problem of alignment in the *EoR out there* and its relation to the *EoR of the experience itself*. The discussion will focus on three main issues. First, I will analyze this kind of experience of reality in relation to its phenomenology, namely, that it is personal, felt as immediate, and carries a force of imposition. Second, I will explain how it is possible to achieve a reasonable alignment between reality and *EoR out there*. Third, I will claim that EoR is not merely an epiphenomenon produced by the alignment dynamics. Rather, it has specific functions highlighted by its phenomenological properties.

Finally, in Section IV, I will briefly address the *EoR somehow*. This constitutes a particular EoR that is not tied to any content and is always aligned with (a non-determined) reality. I will argue that, far from being just an irrelevant, extremely rare kind of experience of reality, it constitutes a key concept and has profound implications both in understanding reality and conscious experience.

II. A CONCEPTUAL FRAMEWORK FOR EXPERIENCE OF REALITY

The experience of reality is, first and foremost, a kind of conscious experience. In other words, there is something that it is like to be in an experience of reality.[4] There is something that it is like to perceive a tomato as being really out there in front of me. There is something that it is like for me to be part of the reality as a sentient partner. There is also something that it is like for a person with Parkinson's disease to be in a hallucination where things, objects, or people are perceived as if they were really there, even if they are not. In a nutshell, the experience of reality is something that we need to accept as part of the conscious experience.

From this perspective, the analysis of the EoR involves the analysis of a kind of conscious experience that must meet two conditions: (1) it must engage with the existence of the experience of something as being real, and (2) it must address the fact that the reality is not always aligned with what we experience to be real, meaning that the content we experience as real sometimes may be at odds with what it is really (objectively) the case. Most conceptual frameworks about the EoR focus on the notion of presence and the conditions that enable a proper perception, while relegating to the background other questions such as the experience of reality concerning the subject/ object distinction or the particular phenomenological status of experiencing something as real.[5] Here, I will introduce an extended framework for the EoR based on the notions of process and experiential parts, and I will establish a conceptual distinction between experience of reality and perception itself. First, I will characterize the EoR as an experiential part of the conscious experience, a process that is fundamentally understood as a *mode of presentation* of reality (contrasting but also relating to the content of the experience), and I will distinguish three different types of EoR —*EoR out there*, *EoR of the experience itself* and *EoR somehow*—. These three types may not exhaust the richness of the conscious experience about reality but help us navigate it. Then, I will introduce the problem of alignment between reality and experience of reality in each type.

2.1 A Framework for EoR

Here, I will present a framework to define EoR and its different kinds. Let's proceed step by step.

i: Conscious experience is a process.[6] By this, I mean that (1) it is complex, (2) it can be functionally/causally specified and (3) it unfolds over time. So, conscious experience is not simple, it is not an epiphenomenon and it cannot be taken as an instantaneous state. Sometimes "conscious experiences" are referred to as "conscious mental states".[7] We may stick to this term, provided we acknowledge the dynamic and process-oriented nature of that state.

A conscious experience being complex means that it consists of parts. In particular, a conscious experience typically consists of experiential parts. So, a conscious experience is not a simple, monolithic phenomenon, even though it appears with an aspect of unity. Some have attempted to explain this aspect of unity in conscious experience by stating that there is no experiential part in it.[8] This is the case of the *no experiential parts view* about consciousness. However, rather than solving the unity of consciousness, the attempt to explain conscious experience as a simple phenomenon (without experiential parts) explains the unity of consciousness away, since it contradicts phenomenology and portrays a static view of conscious experience.[9]

[4] To rephrase Nagel's famous definition of conscious experience (Nagel 1974). This definition is ostensive, that is, it shows what a conscious experience is by pointing it, the same way a horse is defined to a child by pointing it.

[5] Cfr. Dorsch and Macpherson (2018) and Dijkstra, Kok and Fleming (2022), respectively.

[6] Aramendia-Muneta (2024).

[7] Rosenthal (2005).

[8] Tye (2003).

[9] The framework I am presenting is a kind of *experiential parts view*. The unity of experience is one of the most relevant properties of conscious experiences, both etymologically and phenomenologically. Some *no experiential parts views* of the conscious experience amplify this fact by claiming that "there are no experiences to be unified. [...] There is a single multimodal experience, describable in more or less rich ways." (Tye 2003: 28). However, this sort of views (where there is no experiential

On the contrary, a more comprehensive approach must acknowledge that conscious experience is typically composed of experiential parts that are intertwined and unified within dynamical processes. The EoR is just one of the experiential parts that contributes to that complex conscious experience.

ii. From the point of view of intentionality, intentional states and, by implication, most of the conscious experiences, have two kinds of experiential parts: contents and modes of presentation. The content is the object of the conscious experience, while the mode of presentation is the way the object is presented to the subject.[10] For example, when I see a tomato, the content of my experience is the tomato and the mode of presentation consists in perceiving it *visually*, rather than by touching or tasting it. Some authors claim that conscious experiences have only contents, that is, that all modes of presentation are really contents. This is the *no mode of presentation* view.[11] However, the denial of any mode of presentation stems from another factor, namely, that modes of presentation are extremely elusive, as far as they become contents if focused or conceptualized. Nevertheless, not all modes of presentation are focused or conceptualized. Indeed, some modes of presentation, such as pure consciousness, do not allow for conceptualization. Hence, the notion of mode of presentation must be understood as a particular kind of experiential part of the conscious experience. Similarly, the EoR must be understood as a mode of presentation where contents, things, objects, or even the very same experience appear *as being real*. Conceptually, the experience of a content and the experience of a content *as* real must be distinguished. The notion of EoR as a part of conscious experience supports this distinction.

iii: Perhaps the most well-known EoR in literature is the *EoR out there*.[12] This experience of reality is about a content that may appear as belonging to me or not, but that always appears as existing somewhere. For example, when I see a tomato, or I feel back pain, I experience the tomato and my back *as being really out there*.[13] The *EoR out there* has two main features:

- It is an experience of reality of a content *as* being or existing somewhere.
- It is an experience of distinction between the carrier of experience and the object of the experience.

Hence, in *EoR out there* the content of the conscious experience appears as located in a (more or less defined) place. Second, the *EoR out there* comes with the experience of a distinction between the self and the other. There is something, the object, that is felt as different from the experience itself and, mostly, different from the carrier of this experience.

There is, despite, a third feature regarding the *EoR out there*, namely, that it is *sometimes*

part) hamper the processual analysis and doom any attempt to analyze the phenomenon to failure. On the other side, this *experiential parts view* approach also contrast with some high-order theories about consciousness such as the Perceptual Reality Monitoring theory (Lau 2019, Michel forthcoming) where conscious perception occurs "if there is a relevant higher-order representation with the content that, a particular first-order perceptual representation is reliable reflection of the external world right now." (Lau 2019:3). For the *experiential parts view* approach, the experience of reliability in perception is just a part of the conscious experience, not the foundation of it.

[10] The notions of content and mode of presentation are theory-laden and admit different interpretations within each theory (from physical object in naive realism to intentional object in representationalism). Here, I aim for a general, aseptic approach. The notion of *mode of presentation* comes from Frege's *Art des Gegenbenseins*, which is an objective (and not subjective) part of the sign (Frege 1892). One of the most well-known examples of the *mode of presentation view* applied to intentional states is Searle (1983).

[11] Sometimes, also known as *no mode of representation* view. According to it, visual, auditory or any other supposed "modes of representation" are just contents. This view comes usually associated with higher-order views of consciousness (Cfr. Lau 2019).

[12] For instance, the perceptual reality monitoring theories (PRM, Lau 2019; Michel forthcoming) or the empirical approaches (Dijkstra, Koch and Fleming 2022; Dijkstra and Fleming 2023) that deal with source attribution are committed to this *EoR out there*.

[13] There are also a bunch of problems derived from this *EoR out there*. Let's take the example of perceiving a tomato. How can I have an experience of reality out there about the parts of the tomato that I cannot really see (the backside, the inside)? This is the puzzle of perceptual presence (Noë 2006; Seth 2014). More on this in section 3.2.2.

misaligned with reality. By misalignment I refer to the fact that the content experienced as being really out there may conflict with what it is really out there. For example, when suffering from a hallucination or in an optical illusion, someone can have an EoR of something as being really out there when there is really no such a thing. In *motion induced blindness* (an optical illusion where, when the observer focuses on a central dot, the movement of a background leads to misperception of foreground objects such as fixed points), the foreground fixed points are experienced as disappearing, even though they are really there all the time.[14] Regarding pains and proprioceptive perceptions, the misalignment is more rare. Nevertheless, it is not entirely impossible. For instance, in people suffering from phantom limb syndrome (a disorder in which a person that has lost a limb still feels pain in it) the experience of reality of the lost limb does not align with the actual loss of the limb.[15]

iv. There is another kind of EoR that is not *EoR out there*. It is the EoR inside or, more precisely, the *EoR of the experience itself*.[16] This is the kind of EoR someone has when there is still content experienced *as real* and, therefore, there is a distinction between subject and object but the content does not appear as being somewhere out there.[17] As a part of the conscious experience, *EoR of the experience itself* rarely appears separate from *EoR out there*. Subjects usually experience as parts of their conscious experience both, the object of the pain (let's say, my back) and the pain itself. So, it is hard to find pure instances of *EoR of experience itself*. However, there are reasons that point to the necessity of a clear distinction between both EoR. I will mention two. First, when I imagine an invented house with its different rooms and sites, the conscious experience of this content does not include an *EoR out there*, so, it is not an experience of reality as existing somewhere, but it includes an *EoR of the experience* of being really spatially imaging. Second, there are cases of pure instances of *EoR of experience itself* with no particular content other than having the experience itself. Cartesian *cogito*, the experience of being just thinking, a diffuse pain (with no particular location), or melancholy may serve as examples. The *EoR of experience itself* has two main features:

- It is an experience of something *as* real, but not *as* being or existing somewhere.
- However, it is still an experience of distinction between the carrier of the experience and the experience itself.

Regarding misalignment, the *EoR of the experience itself* is rarely a wrong experience. It is hard to conceive a situation where I feel that I am thinking about something, but I am not really thinking about something. However, the converse is not impossible. Conditions such as inserted thoughts and other schizophrenic disorders reflect the misalignments between having thoughts and the EoR of those thoughts as belonging to (or being created by) the subject.[18] In Post-Traumatic Stress Disorder, it is also possible to experience disconnections between the self and the beliefs, desires, and behaviours the person is experiencing.

[14] Bonneh, Cooperman and Sagi (2001).

[15] Ramachandran (2012). The phantom limb may be a rare condition in the population, but is not a rare condition among amputees. Almost 80% of amputated patients seem to feel some kind of phantom pain (Hanyu-Deutmeyer, Cascella and Varacallo 2024).

[16] In the realm of experience of reality, this distinction is parallel to the distinction between object-directed presence and experience-directed presence in the realm of phenomenal presence (Dorsch 2018: 3-4). The greenness experience of the meadow is an object-directed presence while its blurriness in a foggy day is an experience-directed presence. In the same way, the experience of perceiving a real tomato has an *EoR out there*, while the experience of being really perceiving (rather than imaging) has an *EoR of the experience itself*. Nevertheless, the question remains open as to whether the reality of apparent properties (such as the elliptical form of a tilted coin) constitutes an *EoR out there* or an *EoR about the experience itself*. My intuition is that the answer to this question depends on the theory of perception adopted, because it also depends on whether we assume that those apparent properties are experienced as real or are not experienced at all (at least, during normal perception) . More on the discussion in O'Dea (2018).

[17] I may, of course, think of an imaginary house with its different rooms and sites. However, the EoR about this conscious experience does not include an *EoR out there*, so, it is not an experience of reality *as* existing somewhere.

[18] Frith (2014).

v. Nevertheless, the experience of reality does not end here. To be precise, we should acknowledge the existence of another sort of EoR. I will coin the term *EoR somehow* to denote a distinct and specific kind of EoR that:

- It is not an experience of reality of a content, neither as being or existing somewhere nor as not being or existing somewhere;
- As it possesses no content, it does not appear with a distinction between carrier and the experience itself.

The clearest and most extreme example of *EoR somehow* is pure consciousness events. Pure conscious events (PCEs) are experiences of reality that have no content. Forman defines PCEs as "a wakeful though contentless (non intentional) consciousness." (Forman 1990: 8). Regarding PCEs —in case we have never experienced such a thing— two options are available. The first one is to deny that PCEs, the way they are described by literature, exist and attribute them to misinterpretations of some atypical conscious experience. The second one is to take them seriously and try to analyze them.[19]

If we try the second option, PCE happens to be a very intriguing conscious experience. It is the purest kind of *EoR somehow* because it is without *EoR out there* and without even *EoR of the experience itself*, as far as it has no content and no mode of presentation of a content, in the sense that it involves no subject/object nor subject/experience distinction. It is just reality. Just mode. Experience of reality that lacks any determination and any conceptualization.

2.2 Delving into the Problem of Alignment

By now, I have introduced a non-exhaustive taxonomy for EoR, including *EoR out there*, *EoR of the experience itself*, and *EoR somehow* and their properties. In this section, I will address a relevant issue related to EoR, namely, the problem of alignment. Before presenting the different solutions available in the case of *EoR out there*, which will be the topic of the next section, I will introduce a general conceptual framework.

The topic of misalignment between reality and experience of reality has been profoundly explored in relation to visual perception and *EoR out there*. Seth (2014) and Dijkstra, Kok and Fleming. (2020) distinguish among three concepts when dealing with the perception of reality:

- Subjective veridicality: whether the perceptual content appears phenomenologically as part of the external world. (This is the *EoR out there* associated with perception).
- Objective veridicality: whether the perceptual content reflects (to some extent) properties of the external world. (This is the objective reality).
- Doxastic veridicality: whether the perceptual content is understood cognitively to reflect part of the external world.

These three aspects, along with the possibility to dissociate them, can broaden the approach to specific phenomena related to the perception of reality.

[19] For this second approach, see Sullivan (1995).

Table 1: Characterization of the problem of alignment in several phenomena related to the *EoR out there*. Adapted from Seth (2014) and Dijkstra, Kok and Fleming (2022)

Case	experience of being perceiving?	subjective veridicality?	doxastic veridicality?	objective veridicality?	related dynamics of alignment
Normal perception	Yes	Yes	Yes	Yes	
Optical illusion. Motion induced blindness (Bonneh, Cooperman and Sagi 2001)	Yes	Yes	No	No	
Hallucinations without delusion	Yes	Yes/No	No	No	Dynamics between perception and experience of reality
Hallucinations with delusion	Yes	Yes	Yes	No	Dynamics between cognition and experience of reality
Phantom limb (Ramachandran 2012: 30)	Yes	Yes	No	No	
Synaesthesia (Seth 2014)	Yes/No	No	No	No	Dynamics between experience of reality and sensorimotor contingencies
Lucid dreams	Yes	Yes/No	No	No	Dynamics between cognition and experience of reality
Perky effect (Perky 1910)	Yes/No	No	No	Yes	Dynamics between cognition, imagination and experience of reality

Talking about normal perception, subjective veridicality, objective veridicality, and doxastic veridicality happen to be fairly aligned. This seems to be, so to speak, the situation in which common people live most of the time. I see the cup of tea that is in front of me, I feel its presence and, if someone were to ask, I would confidently answer that it is surely there.

However, reality does not end here. There are many perception cases where alignment tends to disrupt, that is, where what I subjectively perceive as being out there, what I believe that is out there and what is really out there do not align (see table 1). Hallucinations and illusions are just examples of how this misalignment happens. Two main comments should be pointed:

- Doxastic veridicality is relevant in order to distinguish phenomena with delusion and phenomena without delusion. Misperception with delusion is doxastically justified by the subject.
- All these phenomena should be considered as part of broader dynamics of alignment. For instance, the context in which these phenomena are situated is highly relevant. Just to mention a case, the content of an

hallucination may be determined by cognitive context. Similarly, prior subjective perceptions could be accommodated by further evidence.[20]

Regarding the *EoR of the experience itself*, is misalignment between reality and experience of reality possible? May someone be thinking (imaging) without having the experience of being really thinking (imaging)? As said before, surely misalignment is much rarer, but not impossible. In order to capture these kind of cases, we ought to generalize above definitions by substituting perceptual content for conscious experience and external world for world in general:[21]

- subjective veridicality*: whether the conscious experience itself appears phenomenologically as part of the world (or my world).
- objective veridicality*: whether the conscious experience reflects (to some extent) its own properties in the world (or my world).
- doxastic veridicality*: whether the conscious experience is understood cognitively to reflect its own properties in the world (or my world).

Subjective veridicality* and *EoR of the experience itself* coincide. They mainly convey two kinds of information, both self-monitoring. First, that the conscious experience is felt as *real* in its genre (as perceiving, believing, remembering, desiring, doubting, or imaging). Second, that the conscious experience is *really* for me or mine, really generated by myself or felt by me.[22] Both reflect the ability of the person to self-monitor their own mental actions and passions as real. Hence, misalignment in *EoR of experience itself*, that is, misalignment between subjective veridicality* and objective veridicality* reflects disorders and problems in self-monitoring, and they are usually related to misalignments in the genre of conscious experience or in the attribution to the self (table 2). Taking imaging for remembering is an example of the first type. Schizophrenia is an example of the second type. This is how Frith explains the misalignment in schizophrenia: "The patients misattribute self-generated actions to an external agent. I have called this a defect of self-monitoring [...] because the patients are failing to monitor their own actions" (Frith 2014: 73).[23] People suffering from inserted thoughts fail to identify the idea as self-generated. On the contrary, the person experiences the idea as if it were from someone else. [24]

[20] Even more, Seth (2021) or Sagiv and Frith (2013) define perception as a "controlled hallucination", that is, as the continuous process of minimizing this misalignment between the experience of reality and objective reality.

[21] We substitute perceptual content for conscious experience and not content of conscious experience precisely to include both contents and modes of presentation.

[22] This also approximates the subjective character of the conscious experience. See Guillot (2007) and Farrell and McClelland (2017).

[23] This calls into question Wittgenstein's famous claim about pain: "ich weiß es, wenn ich sie habe" (Wittgenstein 1953: §303, see also Wittgenstein and Docherty 1958) and Shoemaker's, immunity to error through misidentification (IEM) relative to the first-person pronouns, regarding statements such as "I have toothache". (Shoemaker 1968: 556).

[24] Note the distinction with hallucinations. When experiencing inserted thoughts, the person does not necessarily hear any voice nor perceive any person speaking. It is just that the ideas the person has appear do not appear as self-generated.

Table 2: Characterization of the problem of alignment in several phenomena related to the *EoR of the experience itself*.

Case	Subjective veridicality*?	Doxastic veridicality*?	Objective veridicality*?	Comments
Normal imagination	Yes	Yes	Yes	I feel like imaging, I think I am imagine and I am really imaging
Take imagination as memory	Yes	Yes	No	Misalignment in self-monitoring of the genre of the experience
Inserted thoughts and defect in self-monitoring Frith (2014)	Altered	Altered	Yes	Misalignment in self-monitoring of the attribution of the experience
Dissociation in PTSD	Altered	Altered	Yes	Distance about thoughts and desires
Pure consciousness	Yes	No	Yes	Pure experience of reality as real.

The *EoR out there* and the *EoR of the experience itself* admit misalignment with objective veridicality and objective veridicality*, respectively. On the contrary, the *EoR somehow* is an exception. The *EoR somehow*, taken by its own, is not determined nor conceptualized. Hence, it is conscious experience where subjective veridicality* and objective veridicality* necessarily align, and it cannot be otherwise. Another way to put it is that when talking about the *EoR somehow* it is impossible to dissociate subjective veridicality* and objective veridicality*.[25] The *EoR somehow* is a raw experience of reality that is always right.[26] That is the reason why the *EoR somehow* can be denoted with the term (*experience of*) *reality somehow*.

By now, I have introduced a conceptual framework to understand the experience of reality. This framework offers some keystones. First of all, it justifies the idea that, despite *EoR out there* being the best well-known experience of reality, things do not end here. There are other kinds of EoR that should be taken into account, such as the *EoR of the experience itself* and the *EoR somehow*. Second, it highlights the relevance of the problem of alignment. This is the problem of identifying which factors are relevant to establish the alignment with objective reality. This is a core topic, to the extent that perception can be considered just the process of alignment between what we feel is real, what we think is real and what is real. In the next section, we will deal with the phenomenology of the *EoR out there* and its alignment with reality.

III. EoR OUT THERE AND ALIGNMENT WITH REALITY

Above, I have introduced three kinds of experience of reality, namely, the *EoR out there*, the *EoR of the experience itself*, and the *EoR somehow*. I have justified that these parts do exist

[25] The term "dissociation" appears in medicine and psychology with different meanings ("dissociative anesthesia", "dissociative disorder"). In our context, two related kinds of phenomena A and B are dissociated if it is possible to have A and not B or B and not A. $Dis(A,B) \overset{def}{=} \exists x \mid [(x \in A \wedge \neg(x \in B)) \vee (\neg(x \in A) \wedge x \in B)]$

[26] The EoR somehow should not be confused with qualia. The EoR somehow is not the qualitative character of an experience, but a pure experience of reality.

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from the fact that, eventually, they can appear independently. Nevertheless, the truth is that they usually appear intertwined and taking part into broader dynamical processes. Experiential parts do not form a classical mereology where we can smoothly go on towards progressive grounding from the complex to the simple.[27] On the contrary, experiential parts are parts of transforming processes, and they are constantly self-modulated, changed, or even mitigated. These processes are closely related to the misalignment between reality and experience of reality, and many times they try to accommodate them, that is, try to go towards alignment. So, the story of the dynamical processes formed by EoRs is also the story of the processes that go towards alignment with reality.

In this section, I will describe some of the dynamical processes the experiential parts of EoR that may lack alignment (namely, *EoR out there* and *EoR of the experience itself*) are involved in to reduce misalignment. Phenomenologically speaking, the EoR is misleading. Reality presents to us as immediate and self-justified. However, that is not what actually happens. Many processes mediate and, generally, there are inferences to be made. That is the reason why I will first describe the phenomenological aspects of EoR. Then, I will present the three main theories that explain the alignment with reality in the *EoR out there*. To conclude this section, I will return to the phenomenological aspects of the EoR, and reevaluate them according to these theories of alignment.

3.1 What is it Like to have an EoR?

The *EoR out there* and the *EoR of the experience itself* are both experiences of something as real. Nevertheless, they must not be confused. The *EoR out there* is a part of the conscious experience characterized by three properties:

- It is an experience of a content *as* really being somewhere.
- It needs alterity, namely, it implies the experience of existing a distinction between the carrier of experience and the object of the experience.
- It may not be aligned with reality.

Seeing a tomato or feeling pain in my back are two examples of conscious experience that include experiences of reality *out there*.

On the other hand, the *EoR of the experience itself* has been defined *lato sensu* as an EoR that maintains the distinction between the carrier and the object of the experience, may be misaligned with reality, and is about something as real, but not about something as being really somewhere. Cartesian *cogito* or melancholy may operate as two examples where this kind of EoR appears detached from other experiences of reality.

But the features of the EoR do not end there. Phenomenologically speaking, the *EoR out there* and the *EoR of the experience itself* constitute modes of presentation of something *as real* and, typically, come with more phenomenal features. Here, I will highlight three. First of all, the EoR is felt as personal. This is a feature shared by the *EoR out there* and the *EoR of the experience itself* (and that the *EoR somehow* lacks). It means that the *EoR out there* and the *EoR of the experience itself* have a subjective character: it is an experience of being real that is *for me* or *mine*. This is not totally unexpected. First, both EoR imply the distinction of a carrier of the experience. Second, the EoR is an experiential part and conscious experiences are taken to have typically two phenomenal characters, namely, the qualitative character (what the experience is like) and the subjective character (what the experience is like for me). In the case of the *EoR out there*, the personal aspect of the experience[28] involves a

[27] In fact, not many processes accomplish this requirement. For instance, my hand is part of me, and I am part of the society, but my hand is not part of the society. Hence, new mereologies that take into account functional parthood relationships should be formulated. See Aramendia-Muneta (2024) or Seibt (2015, 2018).

[28] James (1931/1890) and Nagel (1974), for example, have stressed the subjective character of conscious experience. For an explicit claim about this duality of the phenomenal character, see three examples.
Crane (2000: 185): *The fact is [...] that expressions like 'how something looks to you' hide an ambiguity. The ambiguity is between: —how it is with you when you are looking at something and —how that something appears to be when you are looking at it.*

more or less tenuous sense of reality about oneself, regardless of whether the content is perceived by the subject as their own or not

Second, in the *EoR out there* that accompanies perception and in the *EoR of the experience itself*, the reality of the content appears as something automatic or immediate. Hence, this phenomenological feature has a functional role: the EoR is felt as reducing hesitation and fostering certainty and confidence. What is more, this happens despite the fact that there are physical and neural processes that mediate both in perception and in the very same experience. In other words, it happens despite the fact that, in some cases, there may be a misalignment between the contents of the EoR and reality itself.

Third, in the *EoR out there* (at least, in perception) and in the *EoR of the experience itself*, reality appears as with a certain force of imposition.[29] When talking about perception, force of imposition means that what is perceived is perceived with a force and that, even if knowing that it is not the case, it is hard not to experience that content as real.[30] In normal perception, the force of imposition comes into terms. I see a tomato and I experience the reality of that tomato with a force so that I could not deny what I am seeing. Nevertheless, it is helpful to consider some particular cases to realize its significance. For instance, when viewing a Necker cube, it is hard not to see it in three dimensions, even if we know that it is really a two-dimensional representation. Similarly, when observing an Adelson's checkerboard it is hard to perceive the two squares as having the same shade, even if we know that it is really the case. Likewise, the person with phantom limb cannot stop feeling the absent limb, even if knowing that it is no longer there.[31]

The phenomenology of the EoR —and, particularly, the immediacy and the force of imposition— leaves us a sense of amusement and bewilderment. On the one hand, the phenomenology of EoR is clearly functional, and aims to reduce hesitation, foster certainty, and justify action. On the other hand, to what extent is the experience of reality dependent on objective veridicality when perceiving? Why is perception experienced as an immediate, self-imposed process when factors such as constancy, expectation, prior knowledge, and inferences can affect or even determine this perception up to misalignment? Here, we should not be misled by this phenomenology and, at the same time, we need to explain its function. Now, I will introduce some of the dynamics the EoR is involved in. After that, I will return to the phenomenological issues and revisit them throughout the lens of these dynamics.

3.2 Dealing with Misalignment in EoR Out There

It is plain that the *EoR out there* and the *EoR of the experience itself* admit a certain misalignment with reality. Phenomena such as the phantom limb, optical illusions, hallucinations, or disorders based on misidentification of the self in schizophrenia reflect the fact that what we experience as real, what we think is real, and what

Zahavi (2005: 123):*To reiterate: the "what it is like" question has two sides to it: "what is the object like for the subject" and "what is the experience of the object like for the subject". Although these two sides can be distinguished conceptually, they cannot be separated. It is not as if the two sides or aspects of the phenomenal experience can be detached and encountered in isolation from one another.*

Kriegel (2009: 8): *We can distinguish two aspects, or components, of this [...] way it is like for me [...]. There is, on the one hand, the [...] experience's qualitative character, and, on the other hand, the for-me component, which I call the experience's subjective character.*

[29] This idea of force of imposition is widely present in literature. To illustrate its significance, I will refer three heterogeneous examples: Cartesian *clarity and distinctness*, Zubiri's force of imposition of reality as a moment of impression (Zubiri 1980: 31-33) and the notion of self-justification of the beliefs about what we perceive in Lau (2019). Note that in Descartes and Zubiri the force of imposition is a feature of reality, and not of the experience of reality.

[30] In other words, even if knowing that objective veridicality fails, subjective veridicality remains intact.

[31] There are many other cases that are at odds with the immediacy of perception and with the idea of a force of imposition of reality, particularly regarding visual perception. Some of them are available in Ramachandran (2012: 48-55). Just to mention one, I cannot avoid flipping my perception of the very same display between eggs and cavities when I change the orientation of the display. So, background and prior experience shape my perception to some degree.

is really the case can diverge. Nonetheless, we do not live in a *Matrix* world where everything is just a dream. Complete misalignment would make no evolutionary advantage. (Imagine the tragic consequences of not having the EoR of seeing a car when a car is really approaching.) Hence, radical views —such as the view that the EoR is entirely encapsulated from reality and the view that the EoR and reality are just the same thing in all cases— must be dismissed. There is no absolute "blue pill or red pill" dilemma, at least in an *exclusive OR* sense.[32]

Indeed, there are alternatives. The most palatable one is that what we experience as real, what we think is real and what is really the case are just processes that really occur. In other words, they are part of reality and, therefore, they take part in transforming dynamics where they act modulating, changing, or even mitigating themselves.[33] These dynamics are surely not infallible, and imply different strategies. First, I will distinguish non-interactive dynamics (dynamics that do not interact with the environment, mainly, metacognitive approaches) and interactive dynamics (dynamics that interact with the environment, namely, embodied approaches). A second orthogonal axis is the actualist/dispositionalist distinction, meaning the focus on actual (perceptual) processes and dispositions (predictions about future that have not yet been actualized). These two axes assist in mapping the principal theories about the alignment between reality and *EoR out there*. I will highlight three: the metacognitive approach, the predictive processing (PP) approach, and the predictive processing approach based on sensorimotor contingencies (PPSMC). First, I will present these three approaches. Then, I will analyze how they can be used to explain the phenomenal aspects of *EoR out there*, that is, the "what it is like to" have an experience that there is something real out there in the world.

[32] However implausible they may seem, these views are not entirely unprecedented. This is the case in some forms of solipsism and naive realism.

[33] In section 3.2, I will focus on cases where the *EoR out there* is changed by external reality. This is the most well-known scenario. In section 3.3, I will suggest that there are reverse cases where EoR of something may influence reality.

3.2.1 The Metacognitive Approach

The metacognitive approach (Dijkstra, Kok and Fleming 2022; Dijkstra and Fleming 2023) posits that the *EoR out there* stems from dynamics of alignment aimed at proper source attribution, that is, aimed at the distinction between perception (where sensory experience originates from an external source) and imagination (where sensory experience originates from an internal source). These kinds of dynamics are mainly (but not exclusively) "non-interactive", that is, they generally are dynamics of alignment without interaction with the environment, and they are referred to as *perceptual reality monitoring* (PRM).[34] [35] According to the metacognitive approach, the *EoR out there* is just an experience of a content accompanied by and interfering with the EoR of the particular genre of that experience *as* perception of that particular content. For instance, to experience a tomato as really being out there is to experience the content of a tomato plus the experience of perceiving (rather than imaging or remembering) that tomato. In other words, in the metacognitive approach, *EoR out there* depends on a kind of *EoR of the experience itself*, namely, the *EoR of experience itself as perception*.

This task of correct source attribution has to overcome some initial challenges. First, the fact that human beings are inherently imaginative (that is, the capacity to simulate scenarios and to evaluate counterfactuals is a very valuable tool for humans). Second, the fact that the neural

[34] "Perceptual reality monitoring [consists in] determining whether a current sensory experience reflects perception or imagination". (Dijkstra, Kok and Fleming 2022: 1). See also Lau (2019).

[35] However, they accept some interactive dynamics. Dijkstra, Kok and Fleming (2022) suggest that eye movements may play a role in PRM by producing predictable changes in external stimuli, while internally generated sensory experience seems to remain invariant. "In the context of globally changing signals, objects that remain stationary [such as artificial scotoma] are assumed not to represent the external world and can therefore be discarded." (Dijkstra, Kok and Fleming 2022: 4) That is presumably what motion induced blindness shows (Bonneh, Cooperman and Sagi 2001).

processes underlying perception and imagination overlap to a great extent.[36]

Hence, dynamics exclusively based on neural mapping are doomed to failure. Imagine two faucets that pour water into the same jar. It is hard to know which faucet filled the jar just by inspecting the water once it is on the jar. The same goes for PRM. If the neural processes of perception and imagination overlap, metacognitive approaches to discerning whether it is perception or imagination cannot rely on which neural processing are being activated, but must instead depend on other criteria (Dijkstra, Kok and Fleming 2022). Sensory signal strength and precision, for instance, may be indicators of perception rather than imagination, meaning that perception usually implies vivid and fine-grained sensory experience. On the contrary, cognitive control and predictability may be indicators of imagination, meaning that what we imagine is predictable and more controlled than what we perceive.

The metacognitive approach deals with some issues. First of all, the proposed criteria are not infallible. Hyperphantasia (where mental imagery appears as extremely vivid) or mind wandering (where imagination happens to be out of control) constitute just two counterexamples. In fact, it could be argued that perception is really more predictable than imagination, reflecting the fact that we live in an stable and constant world where things do not suddenly change their form and color, and where movements are fairly smooth. Because of this, the metacognitive approach claims that PRM should postulate a third specific kind of process, namely, source attribution processing, whose function would be to evaluate the entries from sensory signal and cognitive control and make decisions according to them. Such a process may be based on generated models or more specific metacognitive processes (Dijkstra, Kok and Fleming 2022: 5). The particular disruptions in each of those interactive systems (sensory signal, cognitive control, and source attribution processing) may explain the different cases of misalignment between reality and experience of reality.

A second challenge for the metacognitive approach stems from the fact that sensory signal processing should not be taken as separated and independent from source attribution processing. On the contrary, source attribution may work as an entry to "sensory areas to alter sensory processing in an iterative, recurrent loop" (Dijkstra, Kok and Fleming 2022: 6). This fact departs from straightforward interpretations of PRM and points towards a complexity between perception and metacognition.

The third challenge touches the nerve of the metacognitive approach. In PRM, the *EoR out there* is associated with perception and with source attribution of sensory experience, that is, the *EoR out there* is an experience of a content interfering with an *EoR of the experience itself* as *perception* of that content. However, not all cases of *EoR out there* are cases where perception is involved. For instance, it is not unreasonable to claim that, when I close my eyes, the EoR of what I have just seen persists and does not vanish. (Consider also a blind person and the experience that person has about the well-arranged objects located in the bedroom, even before perceiving them.)[37]

Another even more dramatic example is illustrated by Seth (2014). It stems from the cases of synesthesia. In synesthesia, synesthetes have a sensory experience, even a vivid one, of a concurrent (for example, a given color in grapheme-color synesthesia) associated with the presence of an inductor (the grapheme inducing that color).[38] This sensory experience occurs even if the synesthete does not feel the reality of the color out there, that is, occurs without an *EoR out there* about that particular content. This means that, in grapheme-color synesthesia, the synesthete has an experience of *perception* of color (even a vivid one) without its corresponding experience of reality for that color. From the

[36] See Dijkstra, Kok and Fleming (2022) and Dijkstra and Fleming (2023). They mainly are supported by other sources, such as Fazekas, Nemeth and Overgaard (2020).

[37] Further details on this issue will be provided when addressing PPSMC.

[38] Seth (2014). Cfr. Grossenbacher and Lovelace (2001) and Sagiv and Frith (2013).

metacognitive approach this is counterintuitive, because it implies that the *EoR out there* of a content (the concurrent) may not be present even when having the experience of a content and the corresponding *EoR of the experience itself* as *perception* of that particular content.

These challenges point out significant limitations in the metacognitive approach. The predictive processing theory is one of the alternatives.

3.2.2 Predictive Processing Approaches

Predictive processing (PP) is a theoretical framework about perception that denies that perception is a direct, merely feedforward feature detection. On the contrary, PP applies Bayesian inference and neural processing to explain perception as a continuous testing and adjustment of hierarchically-organized generative models, namely, hypotheses about the world (Friston 2005, 2010; Hohwy 2013). According to PP, the brain is always hypothesizing models about what is really out there. That is, the brain is continuously making perceptual inferences about the world. When the brain receives a set of sensory data (for example, a particular retinal stimuli), it uses these data to reduce the error about the previous hypotheses it had about the contents out there. This kind of inference is Bayesian, in the sense that it uses likelihood —that is, the probability of having that set of sensory data given a hypothesis about what is out there— to predict posterior probability —that is, the probability of that hypothesis about what is really out there given the set of sensory data—.[39]

There are two kinds of dynamics that contribute to predictive processing: the non-interactive dynamics and the interactive dynamics. The non-interactive dynamics are those that do not involve interaction with the environment, and they are sometimes referred to as "perceptual inference". Similarly, interactive dynamics are those kinds of dynamics that require interaction with the environment to align reality and experience of reality. In this kind of dynamics, the effects of saccadic eye movements, body movements and other actions are monitored and are linked with perception. Those interactive dynamics are called in the literature *sensorimotor contingencies* or SMCs (O'Regan and Noë 2001, also Seth 2014). Predictive processing stresses the relevance of active inference based on the perspectival experience changes derived from movement of eyes, head, or body. This has led to the postulation of the variational free energy principle, which establishes that the agent acts towards the minimization of surprise.[40] Anyway, both kinds of dynamics contribute to the adjustment of the model and prevent underfitting (that is, bias or lack of accuracy of the contents hypothesized) and overfitting (that is, excessive dependence of the contents hypothesized on a particular set of sensory data, that may be contaminated by noise).[41]

Predictive processing is a powerful tool for the explanation of the dynamics that contribute to the diminishing of the error between hypotheses about the world and real sets of sensory data about the world and, consequently, to explain alignment between perception and reality. Nonetheless, even if it is beyond doubt the commitment of PP to explain the gradual alignment between perception and reality, it is not so clear how this theory can contribute to explain conscious experience and, in particular, the *EoR out there*.[42] Different perspectives have been

[39] In Bayes' theorem, P(A|B)=P(A)P(B|A)/P(B), where P(A|B) is the posterior probability, P(B|A) is the likelihood, P(A) is the prior probability, and P(B) is the marginal probability. In PP, A is the hypothesis about what is really out there and B is the set of sensory data. So, the posterior probability P(A|B) is just the probability of hypothesis A given the set of sensory data B.

[40] Friston (2005, 2010) and Hohwy (2013)

[41] In perceptual inference, predictive coding explains how predictive processing error is minimized. For active inference, other processes take part, such as gradient descent of variational free energy (Hohwy and Seth 2020: 15). The free energy principle defines the way those dynamics behave in order to minimize surprise about future data. For more about the free energy principle, see Friston (2010) or Mann, Pain and Kirchhoff (2022).

[42] Hohwy and Seth (2020) are optimistic about employing PP in the search for systematic neural correlates of consciousness (systematic NCC), because this theory has the capacity to address two main tasks in this endeavor, namely, uncertainty reduction and the role of top-down signalling. For a more critical outline, see Marvan and Havlík (2020), who claim that PP may be a prerequisite for perceptual

explored, though not extensively, regarding this particular issue. Here, I will highlight two main alternatives: first-order views and higher-order views. Regarding first-order views, the *EoR out there* about a content could pertain to the inferential updating of that content, that is, the updating of a given hypothesis by minimizing the prediction error[43] or, alternatively, to the hypothesis with the highest posterior probability, that is, the winning hypothesis.[44] The problem with these criteria is that both inferential updating and winning hypothesis may be dissociated from conscious experience. In other words, there may be cases where they fit fine (for example, the conscious switch that occurs when seeing a Necker cube fits with the winning hypothesis view), but there may be other cases where these criteria are not necessary nor sufficient to produce conscious perception, and, consequently, they cannot account for *EoR out there*. Marvan and Havlík have proposed several examples that point to this problem (cfr. Marvan and Havlík 2020). Here, I will just mention two of them. First, in the Kanizsa triangle, a visual illusion where the subject perceives illusory contours of the suggested figure of a triangle, there cannot be any actual minimization of the prediction error about those contours, as far as they do not really exist. Nevertheless, the non-existing contours are consciously perceived as if they were really out there. This challenges the idea that inferential updating is necessary to produce conscious experience. Second, in blindsight, patients with lesions in the primary areas of the occipital lobe claim to be completely blind in one visual field. Despite this, they are able to perform simple actions, such as following a movement stimulated on that visual field or align the hand according to the orientation of a slot placed on the scotoma.[45] In this case, the winning hypothesis about the spatial disposition is not accompanied with conscious perception. This challenges the idea that having a winning hypothesis is sufficient to produce conscious experience.

Regarding the second option and strictly in the perceptual inference framework, higher-order approaches have been combined with PP in order to explain awareness in visual perception, that is, the "internal decision about the *visibility* of perceptual contents" (Fleming 2020: 2). This EoR has some specific properties. It is simple, meaning that it varies in only one dimension (from absence to presence, from unaware to aware). It is abstract, meaning that it implies no conceptualization at all. It is asymmetric, meaning that when it is about presence, it may be accompanied with a content, but when it is about absence, there is no content to be accompanied.[46] This kind of approach to the awareness resembles the metacognitive view, where *EoR out there* is related to *EoR of the experience itself* as genuine perception. As such, this approach can fall into the criticisms above mentioned, such as the problem of explaining the phenomenology of the color in the grapheme-color synesthesia.

3.2.3 A Dispositional Approach: PPSMC

The metacognitive approach and the predictive processing approach are actualist approaches, namely, they are both based on actual processes that occur during perception and are related to alignment between what is real and what is perceived as real. Actualist approaches have to face some particular challenges. One of them is the so-called *puzzle of perceptual presence* (Noë 2006, 2009; Seth 2014). When I see a tomato, I experience its reality as a whole, including the

conscious experience, but is not sufficient or constitutive for consciousness.

[43] "We were working at a rather simple (and formal) level in which consciousness is simply the process of optimizing beliefs through inference." (Hobson and Friston 2016: 251).

[44] "Conscious perception is determined by the hypotheses about the world that best predicts input and thereby gets the highest posterior probability." (Hohwy 2013: 201). However, Hohwy next provides the following disclaimer: "This is not intended as a proposal that can explain why perceptual states are phenomenally conscious rather than not. [...] I am not here intending to touch upon the [...] 'hard problem' of consciousness." (Hohwy 2013: 202).

[45] Cfr. Weiskrantz (1986).

[46] This kind of conceptualization of the awareness in visual perception is somewhat close to a form of *EoR somehow*. If Fleming's characterization is right, it suggests that the processes that explain the *EoR somehow* and this kind of one-dimensional, abstract, asymmetric awareness may be the same. The problem, however, is that Fleming does not seem to acknowledge any interference between this higher-order awareness and the three-dimensional, particular, first-order awareness of the content of the visual perception.

parts I cannot perceive because they are hidden from my perspective (for instance, the rear part). Actualist approaches have to deal with this explanation of an *EoR out there* for the whole tomato, including the parts not seen, from which there is no detail, no precision, no vividness and even no *actual* minimization of the prediction error.

A second issue about actualist approaches is their limited explanatory power for cases where *EoR out there* persists even if perception vanishes. For example, when I close my eyes, it could be alleged that the EoR about the item I was just perceiving neither completely disappears, nor abruptly transforms from an *EoR out there* into an *EoR of the experience itself*. On the contrary, the item is still experienced as being real and as really being out there.[47]

All these issues have led to the emergence of dispositional approaches in which the *EoR out there* is explained by the availability of the content to be part of interactive dynamics. One of those approaches is the predictive perception of sensorimotor contingencies (PPSMC, Seth 2014). PPSMC combines predictive processing and interactive dynamics to explain the experience of reality through counterfactual predictions, that is, predictions about what would occur with the content of perception if interacting with it. According to Seth, the counterfactual predictions must be "explicitly incorporated as part of the priors" in the hierarchically-organized generative models that are refined and optimized during predictive coding (Seth 2014: 104). The subjective veridicality or *EoR out there*, then, is just the richness of those counterfactual predictions about the sensorimotor contingencies. In the case of the tomato perceived as a whole, the EoR is associated with the integration into the model of the various possible ways to interact successfully with that tomato, for example, by manipulating it to reveal all its sides. This approach also provides an elegant explanation for the *EoR out there* when perception is absent, because this *EoR out there* would be associated with the counterfactual prediction about what will be perceived if my eyes were opened. Finally, PPSMC helps to explain why the synesthete has no *EoR out there* about the concurrent (that is, the color in grapheme-color synesthesia). The absence of predictions about the sensorimotor contingencies of the color explains why there is no *EoR out there* about it, regardless of the existence of an *EoR of the experience itself* as perception.

PPSMC constitutes an optimal approach for the explanation of the *EoR out there*. It seems to solve some of the issues related to other actualist approaches (such as the metacognitive approach and the predictive processing approach), and it opens a functional descriptive account where *EoR out there* may be defined by its potentiality and not just by convergent actual processes. Nonetheless, as with the other approaches, some recalcitrant phenomena remain refractory to the PPSMC approach. For instance, in motion induced blindness (recall the optical illusion where, when the subject focuses on a central dot, the movement of a background leads to misperception of foreground objects such as fixed points), the subject has no EoR about the disappearing points, even though they are perfectly accessible by focusing on them, rather than on the central fixation point.[48] On the contrary, the subject experiences the points as not being really there, despite their availability. PPSMC also remains open to the different interpretations about which particular processes are involved in the counterfactual predictions embedded in the predictive coding. It would be meaningless to have a prediction about the richness of SMC that would never be confirmed or verified through the actual testing of those sensorimotor contingencies. So, dispositionalist approaches need some kind of actual mechanism to eventually renew the validity of the EoR.

[47] Noë (2009) refers to this as a kind of perceptual presence, termed "presence-in-absence". Dorsch (2018: 7) prefers the term "perceptual experience out of sight". This is one of the most well-known arguments in favor of dispositional approaches.

[48] Bonneh, Cooperman and Sagi (2001)

3.3 Dealing with Phenomenology of EoR Out There

The different approaches mentioned above, or perhaps an opportunistic combination of them, contribute to explain how the *EoR out there* may arise in circumstances of an acceptable alignment with reality. Nevertheless, though necessary, these approaches may be insufficient to account for the entire landscape of *EoR out there* and, particularly, its phenomenology.

The reason is that there are two distinct questions about *EoR out there* (provided that we do not embrace epiphenomenalism): (1) how and under which circumstances (hopefully in conditions of reasonable alignment with reality) does the EoR appear and (2) how can we functionally and causally define this EoR as a process, that is, as a part of other different conscious experiences that has a specific role.

The phenomenology of the *EoR out there* reflects this double question. The *EoR out there* is a brute fact, that is, a part of reality, a process functionally/causally determined, and it possesses causal powers. The *EoR out there* is a mode of presentation of reality that presents it in a particular way, as personal, as immediate, and as with a force of imposition. For instance:

- The *EoR out there* about a specific situation, felt on a *personal* level and with the alterity label, may be an encouraging or discouraging factor for reasoning, reporting, and acting.
- The EoR out there about a specific content, being experienced *as immediate*, may contribute to efficient navigation towards objectives by reducing hesitation.
- The *EoR out there* about a situation, felt as with a *force of imposition*, may be a salient factor (among others) in prioritizing and effectively approaching that situation.

In this particular regard, the above mentioned approaches differ. While the metacognitive and the predictive processing approach do not seem to explain these particular phenomenological properties, the PPSMC approach appears to possess a singular explanatory capacity. The richness of counterfactual predictions about the SMC, which forms the basis for explaining the *EoR out there* in the PPSMC approach, can explain the experience of force of imposition for a particular content, since that content is presented as if it were available for further testing. Such richness can also account for the experience of immediacy, since richness encompasses two distinct aspects: (1) the amount of available SMCs (for example, what would happen if I open my eyes, get closer, change my perspective, move my head, ask others if that is really out there, compare it with previous states) and (2) the degree of availability on an effort scale (meaning the ease or difficulty for each of those SMCs to be evaluated).

To summarize, in order to explain and understand the *EoR out there* two different aspects must be addressed. The first aspect is the question about the conditions for *EoR out there* to be reasonably aligned with reality. In this particular aspect, the contribution of the actualist approaches seem to be significant but not exclusive. Surely, the alignment between *EoR out there* and reality is based in both non-interactive and interactive dynamics, combined in an opportunistic way depending on the availability of each dynamic. Similarly, issues in those dynamics can explain why eventually misalignment occurs. But the question about alignment is not the only one. It is also necessary to explain the phenomenology that accompanies the *EoR out there* and its role in perception, action, and reasoning. The processes of (i) acquisition of sense data, (ii) alignment dynamics, (iii) objective veridicality, and (iv) subjective veridicality do not succeed each other as in a straightforward pathway where everything flows just in one direction. On the contrary, EoR may emerge during both (i) and (ii), and can condition these processes by diachronically influencing actions through actual and dispositional evaluation, at least to some extent. The immediacy and the force of imposition close the loop for self-transformative processes where each part affects and is affected, transforms and is transformed by the others.

IV. THE EoR SOMEHOW

The *EoR somehow* has been defined as a conscious experience that is pure mode, has no content and conveys no distinction between the carrier of the experience and the experience itself. Although literature is not extensive, some candidates for such an experience have been proposed. One of the most plausible is the above mentioned notion of pure consciousness events (PCEs), which are defined as a "wakeful though contentless (non intentional) consciousness" (Forman 1990: 8). Another one is the notion of *phenomenal now* (Windt 2015), which is "a form of temporal experience that is independent of and perhaps more basic than the experience of being or having a self" and "seems more acceptable than that of an immersive but nonetheless selfless form of spatial experience" (Windt 2015: 17). In both cases, the EoR manifests without any force of imposition of a content (there is no content to impose) and devoid of personal level (there is no subject/object distinction). This contrasts with the previously discussed *EoR out there* and *EoR of the experience itself*.

Nonetheless, this is not the only difference. As previously established, the *EoR out there* and the *EoR of the experience itself* allow for a certain degree of misalignment with reality. However, the *EoR somehow* is a kind of undetermined experience of reality where subjective veridicality* and objective veridicality* are perfectly aligned and there is no possibility of misalignment. In the *EoR somehow* there is no possible error regarding the reality of what someone experiences. However, this immunity to error is not due to a pristine imposition of the content, but simply to the fact that this experience is not determined nor conceptualized, and lacks specific content. Hence, we could also use the notation "(experience of) reality somehow" to refer to it.

Why should *EoR somehow* be seriously accounted for in the debate about consciousness? There are several reasons. First, the *EoR somehow* is not just a rare anomaly within the experiential landscape that can be easily neglected. On the contrary, it seems to point to a remarkable experience, often described as "pure consciousness" (Forman 1990: 8) or "minimal phenomenal experience" (Windt 2015: 18). The mental health benefits of meditation and other related techniques are often assumed, and have occasionally been claimed, though the question remains far from settled.[49] But it is not hasty to suggest that, if conscious experience were like a muscle that requires activation and reinforcement, some experiences of mental focusing —in the realm of experiences with content— and the *EoR somehow* —in the realm of experiences without content— may play a central role in this practice. In addition, the same processes that underpin the *EoR somehow* may be responsible of the *EoR out there* and the *EoR of the experience itself*, with the caveat that, in the last two cases, these processes interact and interfere with contents of the conscious experience, while in the case of *EoR somehow* there is no content to interact with. This suggests that the EoR is a kind of experience that has specific processes, closely related to content and its alignment with reality, but not fully determined by them. It also gives support (i) to the idea of EoR being a part of reality, and (ii) to the idea that misalignment between reality of a content and the EoR about that content is possible

The second reason is its relevance in the debate about theories of consciousness. Many theories about consciousness are informative-laden and determinative-laden. This means that, in these theories, information and reduction of uncertainty play a central role.[50] However, the existence of an *EoR somehow*, close to a pure experience and, at the same time, undetermined and even devoid of content, evidences that determinative theories of consciousness such as informational theories or the predictive processing theory, while necessary to understand the richness of contents and modes of the conscious experience, may not be, on their

[49] See, for instance, Yunesian et al. (2008).

[50] Hohwy and Seth defend that one of the common themes in the theories of consciousness is "uncertainty reduction" (Hohwy and Seth 2020: 11). This is the case with the Global Neuronal Workspace Theory (Dehaene and Naccache 2001; Changeux and Dehaene 2008; Dehaene, Changeux and Naccache 2011), the Integrated Information Theory (Tononi 2012; Oizumi, Albantakis and Tononi 2014) and the Predictive Processing Theory (Friston 2005, 2010; Hohwy 2013).

own, sufficient to explain all conscious experiences and, particularly, they fall short in satisfactory explaining this kind of experience of reality.

Finally, the *EoR somehow* makes it possible to reinterpret and ultimately block the cogito argument in the Cartesian meditations. The Cartesian cogito argument establishes a limit to uncertainty concerning the cogito. In other words, I cannot doubt that there is something, an *I,* that thinks, that doubts. However, according to the taxonomy presented, this argument does not take the meditation far enough. It remains confined to an *EoR of the experience itself* (in this case, the cogito) that still requires conceptualization (in this case, the distinction between subject and object) and, hence, it admits the possibility of misalignment. To harness the argument it is necessary to introduce an *EoR somehow*, that is, an (*experience of*) *reality* somehow where no misalignment is possible. However, such an *(experience of) reality* does not guarantee the reality of any subject.[51] Hence, the cogito argument may not be sufficient to ensure the existence of a *res cogitans*, that is, a thinking substance beyond any doubt.

V. CONCLUSIONS

In this paper, I have introduced the experience of reality from an analytic perspective. I have proposed three types of experience of reality. The first type is the *EoR out there*, —an EoR about what is out there, sometimes also called "subjective veridicality", that conveys the object/subject distinction—. The second type is the *EoR of the experience itself* —an EoR that is not about something out there but still conveys the object/subject distinction—. The third type is the *EoR somehow* —an EoR that has no content and does not even convey any object/subject distinction. I have argued that the first two types allow for misalignment with reality, whereas the last one does not, as it is neither determined nor conceptualized. I have also reviewed some of the alternatives to address the problem of alignment, namely, the question about how the misalignment between reality and EoR can be reduced. Surely, dynamical approaches are required. Among them, the interactive dynamics seem to be more effective, but they are constrained by the availability of sensorimotor contingencies. The dispositional dynamics seem also to be more effective to explain EoR in certain cases, such as when perception vanishes. However, the optimal solution may be a combination of dispositions and actual processes. The EoR can serve as a catalyst for reasoning, reporting, and acting. But it necessitates staying in a reasonable degree of alignment with reality. In the long run, significant misalignment offers poor evolutionary advantage.

Sometimes the language clarifies. Other times it may be distracting. Here, I have attempted to support two ideas that may initially seem contradictory, but are, in fact, coherent when taken together. The first idea is that experience of reality, beliefs about reality, and reality should be conceptually distinguished. This challenges the claim that EoR and reality are ideally or perfectly aligned. The second idea is that the EoR is real. This also challenges the claim that the EoR is not part of reality or has no significant role (that is, it challenges epiphenomenalism). The fact that the EoR should be conceptually analyzed independently of *the reality it is an experience of* does not imply that the EoR is not a part of reality. To claim otherwise is to misunderstand the issue at stake. Here, we should not be distracted by language: the EoR can be misaligned, but it participates in dynamics that are part of the reality. Hence, the EoR, as an instrumental concept, contributes to explaining facts about how we reason, report, and act. Beyond Disney-like fantasies where "dreams come true", the experience of force of imposition and immediacy about a given content can explain how personal or collective feelings, beliefs, and goals can be constituted and even manipulated. Likewise, fake news spreading, gaslighting, social control, and epistemic stubbornness are just some examples of phenomena that require a solid notion of EoR to be fully explained. The EoR

[51] This kind of problematization is anticipated by Lichtenberg's famous claim against the cogito argument: "To say cogito ['I am thinking'] is already to say too much … one should say 'it thinks', just as one says 'it flashes'. (Lichtenberg 1994: 412)

seems to be a trade-off between alignment dynamics and phenomenological properties. Destabilizing this delicate balance can result either in non-functional or irrationally functional conscious experiences. As a result, the experience of reality is no longer an infallible tool to identify reality. Frequently, further inquiry is required.

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