

Reevaluating the Functional Continuum Thesis: An Attentional Account of Imaginative Immersion

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Abstract. This essay argues against the view proposed by Schellenberg that there is a functional continuum between imagination and belief, focusing on the attitudinal question of imaginative immersion. The overarching question is whether an immersed imaginer to some extent truly believes or only imagines the content of their imagination. Schellenberg's functional continuum fails because the fundamental observations she posits in support of a functional continuum, a phenomenological continuity from non-immersed to immersed states, are better explained by a theory of immersion with attentional biasing. This essay demonstrates this by proposing a theory of immersion with attention, where immersion deepens as attention shifts from real-life representations to imagined representations, while preserving the functional distinction between belief and imagination. Finally, it concludes that imagination and belief are separate attitudes, while attention best explains the phenomenal continuity of imaginative immersion, allowing imagination to possess a belief-like quality without ever assuming the functional roles of belief.

Keywords: Imagination, Belief, Attention, Immersion

1. Introduction

When speaking of imagination, one may conjure up mental images of spaceships, unicorns, some superpower one has fantasized about having, childhood role-playing, or some vivid dream one might have had the night before. The entertaining of such imaginings, also known as an imaginative episode, is accompanied by a phenomenon called imaginative immersion, which has both a phenomenal and a practical dimension. The phenomenal dimension is characterized by one's focus shifting from the real world to a fictionally constructed world, which reduces awareness of surroundings while heightening engagement in the imagined scenario. The practical dimension entails following the norms and rules of the imaginative episode without explicitly thinking about how to follow them [1].

Imaginative immersion, however, begets some issues. Consider method acting, a technique of acting where an actor aspires to completely emotionally identify with and embody a character, engaging in imaginative immersion of their qualities. Contrast this with children's play, where practical engagement remains strong but phenomenal immersion, while arguably always present, can be weaker. And then consider daydreaming, where phenomenal immersion may be high, but practical motivation or immersion can drop to zero. In comparison, playing the role of Hamlet

through method acting can often involve one enacting his grief and moral scruple, his feigned insanity with a hint of lurking real madness, and his eloquence and wit in rhetoric, naturally embodying these characteristics as if they were one's own. One both entertains maximal phenomenal and practical immersion in such a situation.

The “as-if reality” of imaginative immersion raises two systematic questions. First, in the Attitudinal Question of imaginative immersion, the question arises whether the actor of Hamlet truly believes he is Hamlet, whether he merely imagines that he is Hamlet, maintaining a sense of self, or whether there is a more complex mix of both in the midst. Second, the Conative Question pertains to how the actors are motivated to enact their role in pretense. Is the actor of Hamlet genuinely driven by the motivations of the sort of desires Hamlet is motivated by (if Hamlet is motivated at all), only insofar as he achieves goals in fiction, or is he merely mimicking the structural shape of Hamlet's motivations, without truly adopting them as his desires? More simply, does the actor require an alternative kind of desire (i-desire), or does regular desire for fictional contexts work sufficiently for immersion?

Explaining the two issues clarifies the dialectic: by outlining the prior, a clearer understanding of the structure and relationships between belief and imagination can be gained. In contemplating the latter, insight can be gained about how motivation interacts with both real and fictional worlds. This essay will focus solely on the Attitudinal Question, as it is more conceptually prior. Before analyzing how desires apply to the question of immersion, it should be ascertained what kind of attitude toward content immersion involves. Being uncertain about whether an immersed state is belief-like, imagination-like, or hybrid, it is unable to interpret what it means to “fictionally desire” or “desire within fiction.”

In her 2013 article, Susanna Schellenberg outlines an unconventional continuum model to answer the Attitudinal Question, while adopting a reductionist view of desire to answer the Conative Question. This essay will focus on one conclusion she presents: (C1) There is a (functional) continuum between imaginings and beliefs [2].

Her conclusion is surprising because people usually conceive of imagination as having a drastically different and irreconcilable role from belief, aiming towards fiction, whereas belief aims towards truth. This essay will argue against the functional continuum that Schellenberg posits, while retaining a continuum of a different kind, a continuum of grades of attention. As immersion deepens, attention is reallocated towards internal imaginations while downplaying the sensory signals of the external cues, thereby producing the feeling of being “immersed” in fiction. This paper's account thereby explains immersion without blurring the boundaries between the functionalities of imagination and belief.

This essay will proceed as follows. First, it will outline Schellenberg's argument for her continuum model (C1) using two phenomenal observations she posits: Observation 1, that one can move imperceptibly from deliberate, surface-level play-acting into absorbed immersion; and Observation 2, that once fully immersed, the subject's stance cannot be cleanly categorized functionally as pure belief or pure imagination. The explanations of her observations can be debated. According to Liao & Doggett (2014), her explanation of Observation 1 requires constructing a continuum of the representational contents of belief and imagination, but she fails to do so [3]. This essay will argue that Liao and Doggett's argument misconceives Schellenberg's explanation, since there is no requisite continuum of contents, and only one pretend content persists throughout the imaginative episode. This distinction is crucial for understanding the functional distinction between imagination and belief, which is preserved in immersion without requiring any blurring of their roles in intermediate states. As to Observation 2, this essay argues that Schellenberg's Observation 2 is

untrue, since it falsely assumes that individuals engaged in imagination assume functional roles similar to those in belief.

Afterward, this essay will elaborate on a new account of immersion, which posits a continuum of attentional allocation and reality monitoring during immersion. Finally, this essay will outline two competing existing theories in the literature: Kampa's theory of attention and Chasid's theory of doxastic mediation [1, 4]. For each of the theories, this essay will show how the new account addresses the shortcomings of both models.

2. Background

It is necessary to first outline the terminology and assumptions this essay will employ. The first assumption is the prevalent basic architecture assumption of the mind. This commonsense account, widely adopted in both philosophy and cognitive science, assumes that two attitudes, belief and desire, jointly motivate action. Meanwhile, these two states differ functionally, arising from and interacting with different components of the mind.

The second assumption outlines the conditions for a mental state to be classified as imagination. (1) A mental state is an episode of imagination only if it takes on some proposition p as its object as if it were true, regardless of p 's actual, present truth. (2) A mental state is an episode of imagination if it involves activities such as pretending, visualizing, or fantasizing that some proposition p is the case. Condition 1 is a weak condition that differentiates imagination from immediate perception. It is apparent that imagination does not have to deal with factual states. Whether in perceptual imaginings, some counterfactual p is not the case, condition 1 is supposed such that the imagination is not dependent on the supposed truth of any proposition: imagining a unicorn does not suppose the existence of a unicorn, just as imagining a worldwide flood does not entail an actual worldwide flood. Importantly, beliefs have a similar non-factual property. While belief is oriented towards truth, it does not necessarily demand that its content p is in fact true. This shared quality allows both to exist along the same continuum.

Meanwhile, condition 2 is a stronger condition that accounts for different forms of imagination. While there are basic types of imaginings, such as perceptive imaginings, namely, envisioning an elephant standing outside the window, or a Pegasus flying in the sky, there are also other clearly distinguishable types of imagination, such as pretending, which entails acting, or children's pretend play. When an actor performs Hamlet, he might envision an image of the prince, but he may also embody Hamlet's character and actions, employing non-visual faculties such as motor imagery, tactile imagery, and other forms of mental imagery. Similarly, fantasizing about "world peace" is possible without any clear mental or motor imagery or embodiment of the concept. It is simply represented in the mind as two concepts that might have been tied to a particular instance of "world" and "peace" when first understood, but is understood without needing to call up the initial imagery used to understand the concepts.

Now that a picture of imagination has been laid out, there is another concern about the form that imaginative immersion takes, namely, whether there is full immersion under normal, applicable, day-to-day circumstances. There are clear examples in dreaming and pathological disorders. For instance, people are often fully immersed in the events and objects of dreams, thinking that they are real and hardly question them until after waking up. Similarly, psychological disorders such as maladaptive daydreaming involve extensive and vivid periods of daydreaming that a patient experiences, often taking up to 60-70% of their waking time [5]. These examples indicate the existence of full immersion, but they seem not to represent the instances of immersion that are non-dreaming or non-pathological.

However, the closest analogue to full immersion found in daily circumstances is acting or children's pretend play. Yet in these circumstances, participants are far from the degree of immersion presented in dreams. Both actors and children are easily cut off from their imaginative episode, for instance, by the director's loud yell of "cut" or the water in a child's teacup spilling over their clothes. Regardless of their strength and commitment to imagination, they are always immediately able to snap out of an episode without much trouble.

Consider the cinema case, if a lion leaps at someone from the screen in the movie theatre, she may feel terrified and shrink away in her seat. There are two explanations for this. First, she does not consider the lion to be a real lion, but the visual scare the movie offers is too great to bear, which results in her body recoiling. In the second scenario, she might momentarily forget the falsehood of the lion, but she does not exhibit the normal reaction of one seeing a real lion. It would be speculative to claim that the body in the theatre reacts exactly as it would to a real lion. At best, full immersion, literally taking a fictional lion to be true, remains a conceivable state, not one confirmed beyond folk psychological claims.

Accordingly, in what follows, this essay will not assume that any account of immersion requires a state of full immersion. The actor playing Hamlet never truly believes he is Hamlet, and the fictionality of the immersion remains grounded, however slight. Finally, this essay will not deal with cases of full immersion under circumstances like dreams and pathological disorders, since they raise different questions from ordinary immersion.

3. Schellenberg's observations and the clarification of the argument

Schellenberg's account argues that the quarantining of imaginings from doxastic commitments can break down in immersion. That is, although there is a clear distinction between pure belief and pure imagination, certain mental states, particularly those in imaginative immersion, are neither imaginings nor beliefs. Rather, these mental states are characterized by "a loss of roles characteristic of imagination and a gain of roles characteristic of belief [2]."

To support this, Schellenberg notes two main observations for the continuum (C1): (Observation 1) One can move imperceptibly from deliberate, surface-level play-acting into fully absorbed imaginative immersion. (Observation 2) Once immersed, the subject's mental stance does not allow for clear classification, making it difficult to distinguish exactly what attitude they are entertaining. Empirically, the lack of a clear distinction between beliefs and imaginings explains the phenomenon of imaginative immersion, in which one "mistakes the fictional situation as real [2]."

3.1. Defending schellenberg's observation 1

Schellenberg's Observation 1 claims that "one can move imperceptibly from deliberate, surface-level play-acting into fully absorbed imaginative immersion [2]." In other words, an imaginer, in the process of immersion, does not experience a discrete and aware state of transition but rather a gradual shift, becoming less aware of the act of imagining and transposed within the imagined scene without perceiving a clear moment of change.

She notes an example of children's pretense, where, by deliberately acting as if she is a crocodile, a child can lose the sense that she is pretending and rather imagine as if she really were a crocodile. Schellenberg writes: "Children, for example, can move imperceptibly from pretending to be a crocodile to being fully immersed in the imaginative world of being a crocodile [2]." Since there is no categorical and conscious shift into immersion, she argues that this "forgetting" that one is

pretending can be explained by imaginative states losing the functional roles of imagination and acquiring the functional roles of belief [2].

One might consider, however, whether Schellenberg's Observation 1 on gradual immersion is as seamless categorically as it seems to be phenomenally. Namely, does the phenomenal feeling of immersion really correspond to the mechanistic "loss of roles characteristic of imagination and a gain of roles characteristic of belief" as Schellenberg describes, rather than, say, another wholly different apparatus [2]?

Liao and Doggett present an influential objection to Schellenberg's Observation 1. They argue that Observation 1 is insufficient to support a continuum, as there is a distinct propositional structure between non-immersed and immersed mental states. Consider a mother pretending to be a cop in a game with her child [3]. Liao and Doggett assert that prior to being immersed in the pretend play, the mother's belief is directed at the make-believe itself, namely, believing that "I am a mother who is pretending to be a cop." Here, she holds a meta-representational stance that posits her outside the make-believe. In an immersed state, meanwhile, they argue that the mother directly imagines the content of the make-believe: "I am a cop," which concerns a first-order imaginative state rather than a mediated belief about the fictional content. Since Schellenberg's continuum does not provide a sufficient account of how categorically distinct content can be graded from holding a belief about the make-believe itself to imagining the fictional content, her continuum model is insufficient to mechanistically explain the seamless feeling of immersion.

However, Liao and Doggett's prominent rejection is mistaken in two ways [3]. First, the existence of full immersion in normal, non-pathological circumstances, where one directly imagines the fictional content of the make-believe itself, is tenuous. It is hard to account for any instance in which someone may fully believe that they are what they pretend to be or act as. Conceivable states where one might directly imagine the fictional content without any mediation of belief include states of dream, illusion, or maladaptive daydreaming, which are beyond the scope of the discussion in this essay.

Second, following a suggestion by Chasid, Liao and Doggett mistake the pretend content and the background belief that merely co-exist and often constrain the pretense [1, 3]. When the mother first imagines herself as a cop, she constructs a fictional scene, complete with badge number, uniform, hat, gun, and attitude. On a Leslie-style view of meta-representation, this pretend content is a representation-of-a-representation, which depicts "being a cop" without purporting to replace the mother's standing beliefs about who she actually is [6]. Importantly, throughout the mother's pretending, even as immersion deepens, the features of the pretend content (badge, uniform, attitude) can remain stable: what need not change is what is represented in the pretense.

By contrast, Liao and Doggett identify the shift from "I am a mother" to "I am" as a content change in the very proposition itself. This content concerns a statement about the real-life status of the mother, which is unrelated to the pretend content, and "I am a mother" is better understood as a dispositional background self-belief that sits outside (and can accompany whether consciously or unconsciously) the pretend content "I am a cop". To conflate and mesh together these two would muddle different categories and result in an explosion of hybrid propositions, such as "I am a married woman who is a cop," "I am a school teacher who is a cop," and so on, each proposition attaching a different background belief onto the same pretend content. The background belief and the pretend content should remain separate, and the pretend content should remain unitary on its own.

A more precise architecture of imaginative immersion, particularly of pretense, would consist of two distinct categories with different propositions and roles: (1) Background Belief (actual-world,

dispositional): I am a mother; (2) Pretend Belief (make-believe, occurrent during pretense play): I am a cop. This distinction removes the misdiagnosis, namely, the conflation of pretend content and background belief. Liao and Doggett's objection, while mistaken, is instructive in the sense that it allows for distinguishing categorically distinct background beliefs and pretend content, which will be crucial for the attentional account this essay puts forward.

3.2. Rejecting observation 1

Schellenberg's second observation states that "once immersed, the mental state cannot be clearly classified as pure imagining or pure belief." Hence, there are hybrid states between beliefs and imaginings, such that imaginings can take on belief-like roles, while one might expect someone immersed to behave as if some imagining *p* were literally true.

She argues for this observation by drawing an analogy to color blending, such that shades between yellow and red are neither fully yellow nor fully red, just as mental states between belief and imagination are neither fully imagination nor fully belief. Hence, since imaginative states are partly belief-like, the individual loses the awareness that they are imagining, indicating a shift in the functional roles of an immersed state.

Nonetheless, experimental evidence suggests that immersed imaginers are aware of real-world facts and do not, in any instance, take the imagining to be true. For instance, a subject immersed in a game, playing with Play-Doh, does not try to bite the cookie even when instructed to [3]. Similarly, Hammond et al. studied participants immersed in listening to an audio narrative or film clips [7]. During trials, participants were asked to perform secondary reaction-time tasks such as pressing a button when hearing a tone. While response time increased as self-reported immersion deepened, participants responded to the cue under all circumstances. This result indicates that an immersed imaginer does not take the imagined content to be true, contrary to what Schellenberg's observation 2 might suggest; rather, real-world tracking persists on some level.

4. A new approach: immersive imagination and different attentional mechanisms

While, in light of the above arguments, Schellenberg's thesis that immersed imaginers "believe" the content of their imaginings is rejectable, it is undeniable that imagination becomes increasingly similar to beliefs in some sense as immersion deepens [1]. What mechanisms then allow for immersion to happen while not mistaking imagination for reality? What else explains why imaginings seem as if they are actually beliefs? How is this mechanism regulated? This essay will argue that the distinction between externally generated representations and imaginings is a result of reality monitoring mechanisms, while immersion itself occurs because of a shift in attentional allocation, whereby a global cognitive control system selects, sustains, and modulates mental states of any kind. As one is more imaginatively immersed, attention increasingly shifts towards the imaginative content, weakening the signal strength of sensory perceptions and amplifying that of internally generated representations. After explaining the new account, this essay will outline two competing accounts of immersion in the literature: Kampa's attention account and Chasid's doxastic mediation account [1, 4]. This essay will highlight that the former fails to explain how attention accounts for different degrees of immersion, and that the latter is a derivative result of this paper's attentional account.

4.1. Reality monitoring and belief-like quality of imagination with attention

Popular literature discusses attention as this one phenomenon that occurs: “I attend to the buzzing of my watch” or “I attend to the noise of the approaching train.” These statements often lack specificity as to what “attend” truly means. Do people focus on the sound of the train with the intention of listening to the noise? Maybe a child would do so, curious about everything like they are. Alternatively, do people’s attention simply get attracted by the train because it was loud without being willing to do so? The colloquial (and even scholarly) use of attention as conscious focusing on an object or event neglects such nuances in the mechanism of attention.

Attention is not a single faculty where consciousness is allocated to such and such an event. It is rather an umbrella term for a family of mechanisms that determine what representations are exposed to working memory and conscious processing [8, 9]. There are too many dimensions that distinguish attentional mechanisms, each intersecting and collaborating with the others: conscious vs. unconscious, exogenous vs. endogenous, initiation vs. executive control, focal vs. diffuse attention, and so on.

A good place to start is with exogenous vs endogenous attention. What is meant by exogenous attention is the orientation towards external stimuli, specifically the capture of attention by sudden, noticeable events in the environment, such as a sharp beam of light or a loud noise [10]. Meanwhile, endogenous attention is goal-directed, internal, and voluntary, allowing one to focus on task-relevant content [11].

What follows from this is how one can distinguish internal from external representations. Indeed, whether a representation is registered as perception or imagination depends on multiple signals evaluated together [12]. Reality monitoring mechanisms assess sensory strength, contextual details, and cognitive operations, along with a source-monitoring framework in the prefrontal cortex [13]. For instance, when playing an immersive VR game, one might notice the buzzing air conditioning, remember putting on the headset, or compare the mechanical brightness of the virtual scene with the less vivid lighting in real life. Similarly, a mother pretending to be a police officer might hear background noises, see informal clothing and her large sofa, as well as hear her child’s yells. These factors allow the mother to distinguish reality from her pretending. What is important is that externally-generated and internally-generated representations are distinguished by virtue of post-processing in the brain. So long as one is still aware of one’s surroundings, it seems that imaginings can hardly be mistaken for reality.

Reality monitoring reinforces the distinction between background beliefs and pretend content made earlier in Section II. In an episode of pretense, the mother’s background belief (“I am a mother”) is reinforced by her perception of familiar objects around her, which maintains a connection to reality in which she is a mother, rather than fully indulging in the pretend content (“I am a cop”). What is important is that both can exist simultaneously in the mind, one distinctively representing the roles of belief and the other the roles of imagination.

While reality-monitoring mechanisms may support Schellenberg’s first observation, they challenge her conclusion that observation 1 leads to a functional continuum. Indeed, since the mind maintains both externally-generated and internally-generated content, immersion cannot involve imaginings functionally transforming into belief. Instead, the functional roles of belief and imagination remain separate and are connected in immersion by attention and reality-monitoring mechanisms. Hence, Schellenberg’s first observation misrepresents the true nature of the continuum as a functional one rather than an attentional continuum. But now, what of the phenomenal aspect of Schellenberg’s observation 1, namely the “as-if” feeling of imaginings?

Hakwan Lau argues that what allows conscious mental content is a higher-order “discriminator” that classifies a first-order state as “reflecting-the-world,” which creates a sort of “assertoric” force of conscious perception [14]. On Lau’s view of perceptual reality monitoring (PRM), the brain uses a high-order discriminator that distinguishes first-order sensory representations as (i) externally triggered, (ii) internally generated, or (iii) background noise. Even though internal imaginings can still be conscious, they lack the veracity of sensory representations and the “assertoric force” of true beliefs and perceptions. The result of this is that people often misuse the term “belief-like” to describe immersive imaginings, which misunderstands important qualities unique to beliefs, such as their “assertoric force,” for what is present in imaginings should more aptly be described as mere vividness.

4.2. Intentional and spontaneous immersion

So far, this essay has constructed a general picture of how and what the “belief-like” qualities of imaginings are. Now, what is wanting is a fuller mechanistic picture of immersion itself. One can envision a tug-of-war competition between the set of representations prior to immersion (S1) and the set of representations in immersion (S2), wherein the allocation of more attention to one would cause the other to lose ground, otherwise known as biasing a set of representations over another [15]. Immersion is the very effect of this competition as attention is allocated from one set of representations to another.

Of course, the use of “sets” of representations is highly arbitrary and inaccurate, and only for the purpose of illustration. In reality, each set is dynamic and comprises different types of representations. Suppose there is an actor acting as Hamlet. The S1 before his enactment would include representations, such as the stage lighting, the voices of his fellow actors, the sound of his walking, the air conditioning in the background, his prior thoughts, his feelings, and so on. This might broadly be considered the set of dominant representations prior to the immersion in his role. In S1, both exogenous and endogenous attention are applied simultaneously. By focusing on his thoughts, Hamlet is attending endogenously, while by noticing external cues, he is attending exogenously.

Meanwhile, as the actor takes to the stage, he sets his mind to enacting his role well. And in the process of acting, as he becomes more immersed in his role as Hamlet (if he exercises method acting), he might assume a set of Hamlet-like representations: posture, thoughts, identity, voice, intention, etc. While these can be a mix of both exogenous and endogenous attention yet again, they involve a different set of mental representations that are now biased over the previous immersed set, and attention is reallocated to an imagined Hamlet-schema. This sense of immersion involves top-down biasing, where there is intentional prioritizing of certain representations and deprioritizing of others. In this case, it involves biasing S2, the Hamlet schema, and suppressing S1, the immediate self schema. Here, both S1 and S2 are held by the mind at the same time, even though some representations may be contradictory. Take a simple example: an actor of Hamlet, engaging in method acting, can imagine that “my father (King Hamlet) is dead,” and he, as himself, can also simultaneously believe that “my father is alive.” Indeed, on stage, the actor might mourn and enact heavy grief for the death of King Hamlet, but this mourning does not stretch beyond the scope of the stage, nor does he ever truly believe that “my father is dead.”

However, the actor can still act as if his father actually passed away because the attitude that dictates his on-stage behavior is not belief. He accepts merely for the game that “my father is dead,” which, combined with representations in S2 that are prioritized in immersion (the Hamlet Schema)

and the inhibition of S1 (off-stage real life) schemas, creates the effect of immersion and a belief-like attitude. Meanwhile, the lack of assertoric force of imaginings never makes them truly beliefs.

What is also important is that there is a complex interaction between immersion and external stimuli, internally generated representations, and endogenous and exogenous attention. The actor, perhaps, would not be as immersed in his role if his performance relied solely on his acting without, say, props and clothes that resemble the 16th or 17th century. The metal swords, wigs, and robes of other actors may well enhance the immersion, along with his internal representations of being Hamlet. In performance, the ability of externally generated representations to feed into immersion shows that the two are not isolated and mutually exclusive types of attention but can work together to enhance immersion.

However, not all acting involves the same “intent” as make-believe, where a participant, here an actor, is assigned a task to pretend. Consider yet another case. The actor goes home that same night, sits around the dinner table, and starts imagining his performance from that day. There is no reason for him to do so except that he simply wanders upon the representations related to his earlier acting. What drives this kind of immersion? This attention drifting passively from externally generated representations to imaginative content is termed spontaneous attention. This is unlike the top-down biasing that the actor employs in his acting, since he is set with the “goal” of pretending to be Hamlet. In spontaneous attention, attention simply drifts around different representations in the mind, and finds its place in perhaps the most immediate and vivid representation or memory (e.g., memories and imaginings of the actor’s earlier acting).

Now, two general methods (intentional and spontaneous attention) are listed through which one can enter into immersion. This essay will explicate how such immersive episodes are maintained. In pretending to be Hamlet, a person has to inhibit certain representations or stimuli, such as a sudden cough in the audience or the stage lights shining in the actor’s eyes, from disrupting the episode. This is not to say that disruption does not occur when bright light is shone into one’s eye. Inhibition simply means the suppression of these sensory signals in the brain and is part of the Executive Control mechanism of attention. Friedman and Robbins describe that executive control (or cognitive control) “stems from the active maintenance of patterns of activity in the PFC that represent goals... [and] provide bias signals...whose net effect is to guide the flow of activity...to perform a given task [16].” Watzl further explains that executive control is what maintains the priority space of attention over time, preventing the “leakage” from unattended representations so that distractions do not distort episodes of immersion [17].

4.3. Drifting attention during immersion

It has been seen that spontaneous attention has the tendency to wander and shift without particular goals. This is also the case during immersion, where the content of immersion dynamically shifts without a particular purpose. In the actor’s reflection on the dinner table, for instance, he can shift from one scene of his earlier enactment to another, or even suddenly conjure up an image of his boss insulting his performance the next day and shudder at that thought. Irving defines this as another mode of attention: mind-wandering as “unguided attention” [18]. This is where attention drifts between different mental contents according to their own associations, without being goal-directed to a certain end.

But does not the earlier actor’s imagining of his boss’s attention reflect a sort of implicit goal-directedness? Of course, one cannot disregard the implicit motivations and associations that the mind makes, related to imminent occurrences or other habitual causes. Under the high pressure of his acting work, an actor might constantly be pressured to contemplate his work environment, even

after hours. Even after destressing on a holiday, the actor might still be motivated by concerns about his parents' health or his family's well-being. Yet, what qualifies mind-wandering as unguided is a stricter criterion.

Irving elaborates on this condition: (Condition) There is no information ι such that, if A's attention isn't focused on ι , she will notice, feel discomfited by, and thereby be disposed to correct this fact. Here, while the actor might be motivated to contemplate or imagine his family or his future work, he, in most cases, "will feel no discomfort drawing him back [18]."

To this point, this essay has discussed immersion generally and mapped out the necessary mechanisms for immersion. This essay will now turn to one curious question Kampa raises: Does the actor ever start "embodying" Hamlet rather than just pretending to be Hamlet as himself? Kampa distinguishes between mere pretense and deeper embodiment, involving the "taking on" of a character's representational states, "affective insofar as assuming a character generates emotional responses [4]." Importantly, embodiment does not mean the literal becoming of another self, but rather emphasizes the phenomenal and affective depth of the experience. So long as emotions invoked by such "pretense" are genuine, it suffices to qualify as "embodying" another character.

In the prior parts of the section, this essay has elicited how bias can result in the prioritization of certain during-immersion representations while inhibiting non-immersion representations. What then might qualify as embodiment in attentional terms would be suppression of certain representations related to the self or even the very mechanisms that condition such self-related representations. Indeed, Brown et al. present an fMRI study of actors in *Romeo and Juliet*, finding "deactivations in brain areas involved in self-processing," suggesting the "embodied portrayal of a character [19]." Furthermore, Lim et al. show that in role-playing, participants indicated an inhibition of the involvement of self-referential frameworks as shown by a decrease in anterior left prefrontal activity [20]. Between the two studies, there are still debates on whether a full deactivation or a partial inhibition occurs. Regardless, what can be concluded is that self-reference is diminished during episodes of immersion, particularly involving acting and role-playing. This suggests that there is a sort of direct and genuine emotional response to the actor's situations, without a filter of selfhood that restricts the actor to merely reacting to the content of the make-believe.

Importantly, the inhibition of self-referring mechanisms does not at all lead to the conclusion that a new self is created. It is simply the reorganization of a current self-model and the suppression of representations relating to the real self. What Kampa describes as "taking on" the noetic structure of some character can be understood as rearranging the priority of certain self-related representations over others.

4.4. Existing accounts

This essay will outline two primary accounts of immersion and explain how this new model remedies their shortcomings. The first model also consists of an attentional account. Kampa presents an account of imaginative immersion through the concept of imaginative transportation, which occurs when one is "transported" into an imagined scenario [4]. This transportation occurs when conscious attention is reallocated towards imaginative content in the Possible World Box, which prevents one's access to beliefs. Thus, when a little girl imagines teddy bears around her to be living beings, she can experience this pretending with a belief-like quality. Kampa captures this with the concept of "palief", which is a quasi-belief state that functions and phenomenologically feels like belief in immersion, but without doxastic commitment.

Nonetheless, Kampa's attentional account faces some definitional difficulties. There are two issues with defining attention as consciously focusing on something. First, Kampa's definition lacks mechanisms of attention that explain how immersive episodes are reliable and stable. What prevents the little girl from suddenly noticing her mother coming down the stairs? Using a definition of attention as conscious orientation does not suffice for this purpose. Second, in the case of reading, both a non-immersed reader and an immersed reader are attending to the content of the book. Kampa's attentional account fails to distinguish between the non-immersed and immersed pretender. Second, his definition lacks mechanisms of attention that explain how immersive episodes are reliable and stable. What prevents the little girl from suddenly noticing her mother coming down the stairs? Using a definition of attention as conscious orientation does not suffice for this purpose.

By contrast, this paper's account, which employs different attentional processes, accounts for both of these shortcomings. The family of mechanisms described above, exogenous attention, endogenous attention, spontaneous attention, and executive control, suffices to explain away the first difficulty. The same occurs for the second difficulty. A non-immersed reader directs their endogenous or conscious attention towards the book, but on the temporal dimension, for instance, they might find it hard to focus over a long interval. Consider also the executive control dimension; a non-immersed reader might fail to shield out external distractions. On the other hand, an immersed pretender might find it easier to focus and avoid distractions, which distinguishes them from a non-immersed pretender.

In opposition to Kampa's attentional account is Chasid's doxastic mediation model [1]. Chasid rejects Schellenberg and Kampa's view, arguing that immersion is best explained in terms of how imaginings are regulated by norms, while attention is a derivative function of such regulation. Since the literature generally agrees on the existence of norms governing imaginings, Chasid argues that there are two ways such regulation occurs. The first form is doxastically mediated imagining, that is, when the imager forms an explicit belief about what should be imagined. This state is when the person imagining is still immersed. For instance, the little girl pretending that her teddy bear is animate must form the belief that her game requires asserting the fictional truth that "the bear is animate." The second form consists of non-doxastically mediated imagining, which represents an immersed imager, wherein the little girl directly imagines that "the bear is animate."

While Chasid employs a normative account of immersion, it presupposes the attentional mechanisms outlined earlier. Non-doxastically mediated imagining is only possible if endogenous attention can sustain the imaginative content, while executive attention inhibits competing perceptual signals, and sustained attention maintains the focus of the imaginative episode for a continued period of time. The normative theory that Chasid outlines might provide an explanation as to why imaginings are belief-like in pretense, but this paper's account provides an explanation of how it is possible in the first place. This paper's account, therefore, does not seek to refute Chasid's account, but rather subsumes it under an attentional mechanism, establishing attention as the primary mechanism underlying immersion, not normative shift.

5. Conclusion

This essay has argued against Schellenberg's view of a functional continuum between belief and imagination in imaginative immersion, instead proposing that immersion is best explained by attentional mechanisms rather than a blending of functional roles. First, it demonstrated that Schellenberg's first phenomenological observation that the shift from belief to imagination is seamless does not entail a loss or gain of functional roles between the two attitudes. Rather, the observation is better represented by a continuum of attention, which consists of a biasing of

representations relevant to immersion while suppressing those irrelevant. Second, this essay shows that Schellenberg's second observation misinterprets immersion as having belief-like functions, rejecting that immersed imaginers ever take their imaginings to be true through empirical evidence. Moreover, reality-monitoring mechanisms, which are assessed through prefrontal processes, help isolate belief from imagination even though a subject may be deeply immersed in imagination.

The conclusion drawn from these analyses is that the continuum between imagination and belief is one of attention, not functional roles. While this account illuminates Schellenberg's first observation, it also elucidates how top-down biasing, spontaneous attention, executive control mechanisms, and unguided attention shape both how one enters into and engages during immersion. The particular advantage of this attentional model is that it situates immersion within cognitive and neuroscientific studies on already thoroughly established mechanisms of the mind. Moreover, it also allows for the cognitive architecture to be modular, while letting the phenomenology of immersion remain graded and fuzzy, explaining the conviction and coherence of immersion without blurring functional categories. By maintaining the architectural solidarity between imagination and belief, this account allows for the further exploration of immersion without the multiplying and postulating of new functional kinds. Nevertheless, despite overgeneralizing empirical continuity to a functional continuum, Schellenberg's account is significant in that it points to explanatory challenges when connecting phenomenal conclusions to the underlying architectures of the mind. This project, bridging the phenomenal and mechanistic, is an important and insightful path to pursue in future philosophical inquiry.

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