The Active Unconscious: The Limits of the Extended Mind

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Submitted to

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In partial fulfillment of the requirements for the degree of Master of Arts

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Vienna, Austria 2022

Abstract

The Extended Mind Thesis (EM) says that our minds extend beyond our bodies: certain mental states, in particular beliefs, could be partly constituted by external objects. EM has come under attack for its claim that extended states are functionally equivalent to internal mental states. In a similar vein, I argue that extended states cannot function unconsciously. Our everyday actions most of the time are guided by mental states operating unconsciously. The unconscious, where our beliefs are stored, has an active nature that could resist extending. On my view, unconscious mental states can be active in two ways: (1) being manifested in the consciousness without being recalled consciously, and (2) being generated or changed due to undergoing unconscious processes. However, the active nature of the unconscious does not necessarily apply to all standing states. Hence, I do not claim that EM does not succeed. Rather, my conclusion is that EM's scope is at best limited to mental states that are unlikely to operate unconsciously.

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Introduction

"Where does the mind stop and the rest of the world begin?" This is the question that is asked by Clark and Chalmers (C&C) in their influential paper (1998) "The Extended Mind". According to the Extended Mind Thesis (EM), our minds can extend into the world: the tools we use such as phones or notebooks can actually be part of our minds. But how should we understand the 'mind'? What is it exactly that is extended? In other words, what is the target of EM?

C&C claim that it is the unconscious part of the mind that is extended. Then my questions are "What is the nature of the unconscious mind?" What feature of it makes the extension possible? What kind of mental states are in the scope of EM? How is the nature of the unconscious relevant to the scope of EM? In my thesis, I want to focus on these questions which I find crucial for EM. C&C claims that the role external devices play in storing information could be analogous to the role the unconscious part of our biological brain plays in storing our beliefs. The functional similarity claim lies at the bottom of C&C's argument, yet it is the one, at least the unconscious part of it, that has not got much attention so far.

I am skeptical about C&C's claim that the unconscious part of our biological brain is analogous to external devices in storing our beliefs. C&C take the unconscious part of the brain that stores our beliefs as static storage for memories, in psychology this is called the *file cabinet* view: "the unconscious is comprised of memories that are passively stored, and must be actively retrieved into short-term or working memory in order to play any role in cognitive processing" (Kihlstrom, 2000). According to this view, the beliefs that are stored in our memory do not have any effect on guiding our behaviors unless we recall them to our phenomenal awareness. However, modern psychological research suggests a different conception of the unconscious and its role in our cognitive system: the conception of the unconscious mind has been changed from being only storage of memories to an *active* player in our cognition. The notion of the *cognitive unconscious*, mental processes, and structures operating outside of the subject's awareness, nevertheless having an influence on conscious experience, thought, and action became preeminent in both psychology and philosophy. In my thesis, I investigate the cognitive unconscious with respect to standing states and based on my findings I set the boundaries of the scope of EM. My tentative hypothesis is that EM's scope is at best limited to mental states that are unlikely to operate unconsciously.

There are two main topics discussed in my thesis: the Extended Mind and the Unconscious Mind. EM is among the 4E cognition theories—embodied, embedded, enacted, and extended— that challenge the standard understanding of the boundaries of mind as the boundaries of the individual. 4E research program has emerged as a reaction to computational cognitive science which failed to appreciate the body's significance in cognitive processing (Shapiro 2021). EM is regarded as the most radical one because it argues that our minds extend, even beyond our bodies, into the external objects. The main idea behind EM is functionalism about mental states. One of the premises of C&C's argument, which has also received the most objections, is that an extended state could be functionally equivalent to an internal mental state. I object to that premise as well, but with a focus on the active nature of the unconscious mental states.

The second topic is the unconscious mind, in particular mental states and processes that are not essentially conscious, such as beliefs. I will call them "unconscious mental states" throughout the paper. In the philosophy of mind, there is a disagreement on whether unconscious states are fundamentally mental or not, but I take unconscious states as properly mental. I focus on a conception of the unconscious mind —cognitive unconscious— which takes the unconscious as an active player in our cognition. Timothy Wilson (Wilson 2002) describes the modern conception of the unconscious under the name of 'adaptive unconscious': unconscious mental states and processes operating out of view but affecting largely our conscious mental life. The idea of active unconscious mental states goes back to Freud. Even though Wilson carefully distinguishes between adaptive unconscious and Freudian unconscious, in my thesis, I take into account the features of both theories.

The thesis will consist of three chapters. The first chapter (1) will be dedicated to the discussion of the Extended Mind Thesis and its key thought experiment: the case of Otto. Then I will consider important criticisms of EM and raise my own. In the second chapter (2), I will make a comparison between an old conception of the unconscious and the modern one. Then I argue that EM is based on the old conception of the unconscious: the file cabinet view. The third chapter (3) will consist of two sections. In the first section (3.1), I will be examining how unconscious mental states can operate unconsciously and guide our actions. In this chapter, my main claim is our everyday life- beliefs, thoughts, actions-- are guided by unconscious processes happening outside of view. Since extended states cannot be operative without being brought to consciousness deliberately, most of the time they fail to have the same function as internal states. In the second section (3.2), I will be examining the various way in which our unconscious mental states, mainly beliefs, can undergo unconscious processes and naturally result in new dispositions. Since extended states fail to undergo unconscious processes, they fail to have the same dispositional profile as internal beliefs and naturally fail to have the same functional role.

Chapter One: The Extended Mind

1.1. What Extends?

According to the Extended Mind Thesis (EM), our minds can extend into the world: certain mental states and processes can include, as constituents, parts of the world that are outside of our body (Clark and Chalmers, 1998). Clark and Chalmers (C&C) argue against the traditional view which takes the demarcations of skin and skull as the boundaries of the mind, and they defend an externalist view of the mind. However, their externalism should not be confused with the externalism about the meaning which was famously advocated by Putnam. C&C rather propose, what they call, *active* externalism about the mind which is based on the active role of the environment in driving cognitive processes. I prefer to refer to it, as what Susan Hurley calls, "vehicle" externalism because it is about the vehicles realizing particular mental states and processes (Hurley 2010).

One important question which is plausible to ask is "What is it exactly that is extended? The second question is "Are there cases of extended consciousness?" By answering the second, we answer the first as well. The second question is discussed by both C&C in different papers. Although in the philosophy of extended mind substantial attention was paid to the possible route from EM to ECM (Extended Conscious Mind), C&C expressed doubts about ECM from the very beginning. Clark resisted the idea that the material basis for consciousness could also extend:

I hope to show that nothing in the arguments for EM should incline us to accept ECM (to accept an extended view of the mechanisms of the conscious mind or of the vehicles of conscious experience)...

(Clark, 2009)

His main reason was that consciousness requires high-bandwidth access to information, and that extended processes involve only relatively low-bandwidth access to information (Clark 2009). Chalmers also claims that consciousness does not extend but he thinks the explanation for it needs more than Clark suggests. According to Chalmers, "the right explanation is not that consciousness requires high-bandwidth access to information, but that it requires relatively direct access" (Chalmers, 2008). He thinks that it is the unconscious that is extended:

"But then, what about the big question: extended consciousness? The dispositional beliefs, cognitive processes, perceptual mechanisms, and moods considered above all extend beyond the borders of consciousness, and it is plausible that it is precisely the non-conscious part of them that is extended"

(Chalmers, 2008)

Since both Clark and Chalmers think that what is extended is precisely the unconscious part, what kind of nature the unconscious mind has carries utter importance for EM. I will discuss the unconscious in the second chapter in more detail, but first EM must be analyzed and evaluated.

1.2. C&C's Functionalist Argument for EM: Otto and Inga

Clark and Chalmers (C&C) formed EM with a key thought experiment¹ which is about dispositional mental states, in particular beliefs: the case of Otto. It goes as follows: Otto suffers from memory loss and stores information in his notebook. Inga, on the other hand, has a normally functioning memory. Both Inga's biological memory and Otto's notebook contain the information that the Museum of Modern Art is on 53rd Street. They both hear of an interesting exhibition at MoMA. While Inga thinks, recalls that MoMA is on 53rd

¹ In their paper, C&C presents two thought experiments: (1) a person watching a computer screen while playing Tetris and (2) the case of Otto which is about dispositional beliefs. While the first one is about extended cognitive process and the second one is about extended mind.

Street and sets off, Otto retrieves the address from his notebook and sets off. The issue here is: Does Otto have the belief before recalling the information from the notebook or not? C&C argue that if we agree that Inga has a belief with the content "MoMA is on 53rd Street" prior to recalling the information, then the same belief should be ascribed to Otto as well (1998). Their argument mainly relies on functionalism about beliefs. They claim that Otto's belief which is constituted by the notebook— is functionally equivalent to Inga's internal belief.

According to functionalism about mental states, for an agent to have a mental state A is to have a mental state that has the functional role of A. Thus, to be able to ascribe Otto the same belief Inga has, we have to ask "What is the functional role of Inga's belief?" In contemporary philosophy of mind, beliefs are understood as standing states, which means they persist through changes in the stream of consciousness and even in the absence of consciousness. Once they are formed, they are stored in the mind to be used in the subject's future thoughts, actions, projects, etc. It is widely accepted that actively reflecting on our beliefs is not necessary to count as having the belief (Schwitzgebel, 2019). We do not lose our beliefs when we are asleep. Thus, beliefs are not essentially conscious (Crane, 2013). They are characterized as the basis of certain dispositions.

Since for a functionalist, mental states are characterized by their typical causes and effects, and effects do not have to be actual effects, dispositions can be understood as forward-looking functional roles (Crane and Farkas, 2021). For a given belief P there is a dispositional stereotype appropriate to P. Gilbert Ryle puts it very nicely how beliefs are understood as dispositions:

... to believe that the ice is dangerously thin is to be unhesitant in telling oneself and others that it is thin, in acquiescing in other people's assertions to that effect, in objecting to statements to the contrary, in drawing consequences from the original proposition, and so forth. But it is also to be prone to skate warily, to shudder, to dwell in imagination on possible disasters and to warn other skaters. It is a propensity not only to make certain theoretical moves but also to make certain executive and imaginative moves, as well as to have certain feelings.

(Ryle 1949, p.135)

Since for each belief there is a corresponding dispositional stereotype, our question becomes "What dispositions does Inga have based on her belief that MoMA is on 53rd street?"

C&C compare Inga's and Otto's beliefs by their explanatory roles in guiding their actions. In the thought experiment, after recalling the information both Inga and Otto walk to MoMA as a result of the combination of their belief and desire. The only difference between the two cases seems to be that Otto's belief content is written on an external object— a notebook. In order to guarantee equal treatment between internal and extended cases— Inga's internal state and Otto's extended state— C&C put forward the parity principle (Sprevak, 2009). The parity principle says that if an extended process is relevantly similar to an internal process, then that external process should have an equal claim to be a part of a cognitive mechanism (Clark and Chalmers, 1998).

In accordance with functionalism about beliefs and the parity principle, if the information written in Otto's notebook has the same functional role as Inga's current belief state, it follows that Otto has the belief that Inga has. Framed in this way, this is a valid argument. Yet, one of the antecedents is very problematic: the view that they are functionally exactly alike. If one can show that Otto's and Inga's cases differ in some important and relevant aspect, substantial resistance to EM can be provided. Following this line of thought, EM has been strongly criticized by Fred Adams, Ken Aizawa, and Robert Rupert. In a similar vein, I will try to show that Otto's and Inga's cases differ in some important and relevant aspects.

1.3. Strong Criticisms of EM and C&C's Responses

Robert Rupert (2004) puts forward the notion of *negative transfer* as a phenomenon that distinguishes Inga's internal memory from Otto's notebook. It is about the interference of an old memory with new learning. For instance, if a student already has an idea A about a particular subject B, she may display more errors while learning a new idea C about the subject B than a student who has no idea about the subject B. This is because the first student is using her old ideas that may have transferred negatively (an old memory of A-B interferes with the ability to learn A-C). Rupert argues that the negative transfer is widely exhibited in human memory but absent in the extended process described by Clark and Chalmers. Because Otto could write down and recall a new memory without any interference from an old memory, unlike Inga.

Similarly, Adams and Aizawa (2001) point out the different causal structures of Otto's cognitive process to recall his belief and Inga's: in order for Otto to pick up his notebook and turn the appropriate page and read it, the activation of his motor systems and visual systems are required. They also add that interacting with the notebook involves beliefs about the formal and physical nature of the notebook. However, these features do not have to be exhibited in Inga's process. Thus, they conclude that the typical causes and effects of the notebook are very different from those of Inga's bio-memory. Therefore, the functional role of the notebook is very different from Inga's bio-memory. The criticisms of Rupert, Adams, and Aizawa (RAA) share a common point: they focus on features of internal human cognition and see those fine-grained features as necessary for having particular types of mental states and cognitive processes.

Clark has given a strong response to RAA by arguing against the idea that fine-grained features of human cognition are necessary for having particular mental states. According to

the Martian intuition, it is possible for creatures to have mental states even though such creatures might have a different psychological, physical, and biological makeup from human beings' (Clark, 2010). Because it is not very plausible to think that an intelligent Martian should have exactly the same physiology or psychology as ours. After all, the typical causes and effects of Martian's mental states could differ from ours on small scale. Thus, if we draw the boundary between cognitive and non-cognitive as finely, as RAA draw, we would be claiming that possible Martians cannot have any cognitive processes and states.

Chalmers provided a response to RAA as well by pointing out that this kind of objection leads to an implausible human chauvinism about cognition (Chalmers, 2019). I agree with C&C that arguing for fine-grained features of human cognition as a necessary condition for having beliefs is not a plausible way of objecting to EM. Because it assumes that only the features which belong to human cognition are necessary for having any particular mental state. In a way, it ignores the mental capacities of the possible creatures. Yet, for the reasons related to the unconscious nature of beliefs, I agree with RAA that the two states have different functional roles, not only on the micro-level but on the macro-level as well.

1.4. Moving From the Extended Mind to the Unconscious Mind

I share with RAA the view that there are some necessary features Otto's extended belief state has to display in order to be credited as having the same functional role dispositions— as Inga's internal belief state. However, I see those necessary features related to the active nature of internal unconscious mental states and the way they operate and guide our actions. I already discussed why beliefs are accepted as unconscious mental states but I haven't yet discussed what this means in terms of their functional roles. Moreover, since EM targets unconscious mental states, a further discussion on the nature of the unconscious mind is needed. In the next chapter, I am going to show that EM is based on an old conception of the unconscious, the file-cabinet view, that has been mostly abandoned today in favor of a more active conception of the unconscious.

Chapter Two: The Unconscious Mind

2.1. Old Conception of the Unconscious: The File Cabinet View

In the thought experiment, C&C make a crucial comparison for their argument: they claim that Otto's notebook has the same function as Inga's biological memory, namely storing information: "For in relevant respects, the cases are entirely analogous: the notebook plays for Otto the same role that memory plays for Inga." (Clark and Chalmers, 1998). It is true that the information that is written in Otto's notebook persists even at the times Otto is not conscious of it, just like the content of Inga's internal belief. In both cases, the belief is waiting to be recalled and brought to consciousness. Thus, both Otto's notebook and Inga's biological memory seem to be playing an archival role in their beliefs. This way of thinking about memory is often called *the storehouse* view according to which the memory stores experiences and beliefs that persist without undergoing any change.

There are two main ideas behind the storehouse view of memory: the stored items such as beliefs (1) are not subjected to any processes, e.g. change, and (2) cannot be used without being brought to the consciousness. Audi, for instance, makes an analogy between dispositional beliefs and data stored in a computer's memory but not on its screen. Just as the data need to be brought to the screen in order to be used, dispositional beliefs need to be brought to be used as well (Audi 1994).

The storehouse view of memory finds its corresponding in the file cabinet view of the unconscious: "the unconscious is comprised of memories that are passively stored, and must be actively retrieved into short-term or working memory in order to play any role in cognitive processing" (Kihlstrom, 2000). In a sense, the file cabinet view equates the unconscious with the memory. In Otto's and Inga's case, since the function of the biological memory is taken to

be analogous to the function of the notebook, and C&C explicitly say that it is the unconscious part of the brain which extends, we can say that their view of the unconscious corresponds to the file-cabinet view.

The file-cabinet view is one of the early stages in the conceptualization of the unconscious in the modern history of cognitive psychology. According to this view, we experience an event, form a memory, and file it away for later use; just as Otto experiences an event, forms a memory, and saves it in his notebook. Thus, Otto's notebook is the perfect example of the file cabinet model of the unconscious. In both cases, the conscious retrieving of the beliefs is needed in order to be used. Moreover, what Otto writes in his notebook stays the same, they are not altered or removed, just like the items that are stored in a file cabinet. Prior to retrieving, memories are passively stored and do not influence our conscious behaviors. The file-cabinet view does not allow unconscious thoughts and memories to be active.

In social sciences as well, it is commonly assumed that our behaviors are determined by only the feelings, thoughts, beliefs, and desires that we are aware of. For instance, the standard practice for political scientists is simply asking people to report their beliefs, likings, past behaviors, and intended actions. However, this assumption has been strongly challenged by behavioral studies in social and cognitive psychology. Modern psychological research suggests that human thought and behavior are controlled by uncontrolled unconscious processes. Thus, it suggests a different conception of the unconscious which puts emphasis on its active role in our cognitive system: cognitive unconscious.

2.2. Modern Conception of the Unconscious: Cognitive Unconscious

In cognitive psychology, the conception of the unconscious mind has been changed from being only storage of memories to an *active* player in our cognition. Psychological research suggests that conscious experience, thought, and action is influenced by memories, and other mental states which are out of phenomenal awareness (Kihlstrom 2000). The notion of the *cognitive unconscious*, mental processes, and structures operating outside of the subject's awareness, nevertheless having an influence on conscious experience, thought, and action became dominant in both psychology and philosophy. These active unconscious mental states include memories, thoughts, and beliefs.

There are different terms used for referring to the modern conception of the unconscious. Kihlstrom calls it psychological or cognitive unconscious. Timothy Wilson (2002) describes it under the name of 'adaptive unconscious': unconscious mental processes operating out of view but a*ffecting largely* our conscious mental life. As one of the functions of the adaptive unconscious he points to implicit learning: learning without awareness of exactly what has been learned. As an example, we can think of children's ability to master their native language; they speak effortlessly and they do not learn it by studying vocabulary or grammar (Wilson, 2002). However, the idea of the active unconscious is not new and goes back to Freud. As Wilson (2002) points out, the view that a large portion of the human mind is unconscious was Freud's greatest insight.

Freud (1916-1917/1963, 1933/1964) argued that people were affected by emotional and mental states of which they are not consciously aware. They realize their true motives and feelings later on when they reflect on their behavior. By means of inference, they come to know about the reasons underlying their conscious behaviors. According to Freud, at the time

of the action, subjects do not realize their true motives. He says: "We have found that very powerful mental processes or ideas exist which can produce all the effects in mental life that ordinary ideas do (including effects that can in their turn become conscious ideas), though they themselves do not become conscious (Freud 1923/1961, p.14).

The Freudian insight with respect to our lack of awareness of the true motives underlying our actions was later discussed by Wilson and Nisbett in a very highly influential paper called "Telling More Than We Can Know: Verbal Reports on Mental Processes" (1977). Nisbett and Wilson argued that we are largely ignorant of the 'cognitive processes underlying our choices, evaluations, judgments, and behavior'. For their argument, they conducted and reviewed several experiments. For instance, in one of them, subjects were invited to evaluate and choose clothing items. Even though there was a pronounced left-to-right effect in their choices, when subjects were asked to report their reasons, nobody talked about the positions of the items (Nisbett and Wilson, 1977). Based on the evidence, Nisbett and Wilson concluded that subjects were reporting based on no true introspection, without the awareness of the 'real reasons' influencing their cognitive processes. Both Freud's discussion and Nisbett and Wilson's findings show that we are not always aware of our mental states and processes affecting our actions.

Despite the similarities between the Freudian unconscious and the cognitive unconscious, Wilson carefully distinguishes the psychoanalytic unconscious and the cognitive unconscious: in the former, repressed (dynamic) thought is seen as primitive and infantile and it is kept out of consciousness by psychological defenses; to the latter, on the other hand, a good deal of high-level sophisticated thinking is attributed and a major role is given in navigating our lives. The modern view regards the unconscious as a necessary and extensive part of an efficient mind (Wilson 2002). I do not fully agree with Wilson's characterization of the Freudian unconscious. In the next section, I am going to show that the Freudian unconscious is more similar to the cognitive unconscious than it is commonly supposed.

2.3. Freud on Active Unconscious Mental States

Interpreting the Freudian unconscious through his theory of the repressed unconscious is common but could be misleading. It is misleading because it refers to a narrow domain of unconscious mental states, only the repressed unconscious mental states. Repressed unconscious mental states are most of the time inaccessible because they are actively kept from the consciousness by psychological defenses. They are unwanted thoughts or impulses that are blocked unconsciously. Because of the active repressing forces, Freud refers to repressed unconscious states as "dynamically unconscious" states. Thus, the dynamic unconscious, which Wilson contrasts with the adaptive unconscious, refers to only a type of unconscious mental state, not all of them. Freud explicitly distinguishes the dynamic unconscious from the broader domain of unconscious:

Everything that is repressed must remain unconscious; but let us state at the very outset that the repressed does not cover everything that is unconscious. The unconscious has a wider compass: the repressed is a part of the unconscious. (Freud, 1915/1957, p. 166)

This means, that not all unconscious mental states are repressed ones. More importantly for my purpose, it means that active unconscious mental states are not necessarily repressed ones. Repressed unconscious states could be active as well, but active unconscious mental states form a bigger domain. Once we distinguish the repressed unconscious mental states from the larger domain of active unconscious mental states, we can see more clearly the similarities between the Freudian unconscious and the modern unconscious, and that the Freudian unconscious is not as limited as Wilson suggests.

I think Freud's ideas about the active unconscious states are key to seeing the parallelism between the cognitive unconscious and Freudian unconscious. He introduces the notion of active unconscious mental states: "We call a process unconscious if we are obliged to assume that it is being activated at the moment, though at the moment we know nothing about it" (Freud, 1933/1964a, p. 70). Wakefield (2018) reconstructs Freud's thesis regarding the existence of active unconscious states as this:

There exist active unconscious mental states: There exists a state M and a time t such that M is mental and is not conscious at time t, and M is active at time t.

Wakefield acknowledges that Freud does not explain what exactly is active means for a state. Thus he adds "...one may assume that for Freud's purposes to judge a state 'active' at a given moment requires that the state's semantic content is interacting with other semantic contents in the mental system in a way that is at least partly manifested in consciousness" (Wakefield 2018, p.84). Wakefield's interpretation, in a way, expresses the functionalist insight that mental states form a complex network of causal and dispositional connections.

At the most fundamental level, being in an active mental state requires being manifested in the consciousness: hence being active in an unconscious mental state means 'being outside of the view, nevertheless having an influence on conscious experience'. All active unconscious states must satisfy this condition. Moreover, by being part of the mental network, our mental states could undergo unconscious processes as well: they can be formed, altered, or removed without us being aware of it. As my discussion in the next chapter will show, undergoing unconscious processes is not a requirement for being active but is evidence for the view that the unconscious is not comprised of memories that are passively stored. Unconscious mental states do not only have effects on our actions but can also undergo unconscious processes and naturally result in certain dispositions. In the next chapter (3), I give discuss both phenomena. The first part (3.1) concerns the ways in which unconscious mental states guide our actions, and the second part (3.2) concerns how those mental states can be generated, changed, or removed unconsciously.

Chapter Three: The Active Unconscious

3.1. Operative Unconscious

One of the key claims of EM is that in both Otto's and Inga's cases the information is easily available when the subject needs it. I am skeptical about Otto's case. My question is: In our everyday life, are we always aware of what information is needed to guide our actions? Because the information written in Otto's notebook is only available when Otto consciously searches for it. In this chapter, I argue that much of everyday life— acting, feeling, believing, thinking— is driven by processes happening in the unconscious, without the mediation of any conscious retrieving. If I am right, then there is an important functional difference between Otto's extended state and Inga's internal state.

What I see as a relevant difference between the two cases is that while Inga's actions are aremost of the time guided automatically by her unconscious mental states, Otto's actions are dependent upon his deliberative processes of retrieving information from his notebook. In other words, while Inga's unconscious mental states can operate without being intentionally brought to consciousness, Otto's extended states cannot. Although C&C claim that in both cases the information is reliable there when needed, and available to guide action, I am going to show that Otto's belief fails to function in the way that we expect a belief to be.

There is a distinction that is made in psychology that is I think very helpful in understanding the difference between Otto's and Inga's case: automatic processing and deliberative processing:

Deliberative processes are cognitively effortful; time-consuming, demanding of attention, and often premised on an intentional memory search for relevant facts and considerations. Conversely, automatic processes are involuntary, fast, top of the head, consume few resources, and unlike conscious processes can be activated even when the individual's attention is focused elsewhere.

(Burdein, Lodge, Taber 2006)

One plausible way to characterize Otto's case is that Otto's actions could only be the result of deliberative processes: the belief regarding the location of MoMA can only be operative after Otto's intentional search for the beliefs relevant to MoMA, and his conscious process of retrieving them. Only then his belief could result in an intended action for Otto. When it comes to Inga, one might either argue that it is deliberative as Otto's process, as C&C do: Inga has to search intentionally for the beliefs relevant to MoMA, and then find the most fitting one to guide her actions, and finally act upon that belief: or, as I do, can argue that Inga's beliefs are most of the time operate as a result of unconscious processes: her beliefs can be activated in many ways she is not aware of. Unconscious activation of mental states is crucial to any kind of operations happening out of the subject's awareness.

3.1.1 Unconscious Activation

We should begin our investigation of the active unconscious mental states by considering the most common and accepted phenomena. As Carruthers remarks, "Almost everyone now accepts, for example, (post-Freud) that beliefs and desires can be activated unconsciously". (Carruthers 2016). He gives as an example the resolution of problems in one's mind when they are asleep or not attending to them. It is also known as having a "Eureka!" moment. For the effects to exist, we have to accept the existence of mental processes happening in the unconscious.

The unconscious is also understood as the source of our dreams. Many of our mental states are activated in our dreams without our awareness and control. Not only while asleep but also at the times when we are not attentive to our thoughts, they can be activated. Most of the time various external and internal stimuli can take part in the activation: either a sensory

input or another thought in the back of our minds can trigger particular mental states without us being aware of it.

Now let me consider the activation of unconscious states with respect to Otto's and Inga's internal and external states and show how they differ. For instance, Inga's belief that "MoMA is on 53rd Street" can be activated by her walking in the neighborhood where MoMa is located or even coming across the map of the district where MoMA is. Any kind of stimuli somehow related to her beliefs would be sufficient to trigger them. However, in Otto's case, it is difficult to talk about such ways of activation. Because the activation of his beliefs always requires conscious recalling of them. Only after they are consciously retrieved, they can be activated, and then guide his actions.

Unconscious activation of our mental states is the first step for any kind of unconscious operation. In the next step, unconscious mental states affect our conscious thought, action, etc. However, I confront a methodological challenge in my examination because unconscious processes are outside of our awareness. Most of the time, our conscious judgments are consistent with our actions: we judge X and we act in accordance with X, and that makes it very difficult to detect the role of the unconscious in our actions. Yet, there are some peculiar cases where our conscious judgment does not match our conscious actions. In those cases. (3.1.2), we can detect the effects of the unconscious. But before discussing them, as another method, I will try to describe what would it be to lose the unconscious activity of our mental states: in other words, I will give a fragment of Otto's life.

3.1.2. Otto at MoMA

In Otto's case, as I described before, all of his long-term memories ranging from information about facts, names, and dates to more complex ones like political beliefs, opinions about the people in his life, relationships, etc. are written in his notebook. What the written is in the notebook can only be used through Otto's conscious retrieval of it. As C&C describes, Otto wants to go to MoMA and look at his notebook and finds the relevant information, and then goes to the museum. Now imagine Otto's day in the museum.

When Otto is waiting in line to get his tickets for the exhibition, he sees someone approaching him. First, he cannot be sure whether he knows her, checks his notebook a few times, and cannot find any photo of her. Then he guesses that she is someone he doesn't know. When she reaches next Otto, he becomes sure that she is a stranger because she introduces herself by telling him her name, where she is from, what is she doing and why is she in the museum. Otto starts to form new beliefs about her, based on not only the things she says but also the things he observes about her and writes down all of them. After a very short small talk, she says goodbye and leaves him in a gloomy mood. Otto notices that their small talk didn't go really well but can not really put his finger on what the problem was.

When Otto gets home, the gloomy feeling does not leave him alone, he searches for the reason why their talk couldn't last a bit longer. He goes through everything that is written in his notebook. Then he notices many ways in which he could have talked longer with her. For instance, she was from a small town in France and he indeed knew some people living very near to that town. She was at the museum because of her project about the building, and he was living in a building designed by the same architect. She was studying architecture and he was deeply interested in architecture. He finds many relevant memories related to their talk and can't stop thinking about how the conversation would have been if those memories were in his head instead of his notebook.

One could say that Otto's case is not that different from anyone who has a biological memory on a functional level. The only difference is that Otto has to make more effort to

retrieve the memories, and this is not an important functional difference. However, my point is not about the difficulty Otto confronts, it is about his extended beliefs being not able to be unconsciously activated. Inga in the same situation, would not consciously try to find relevant memories, they would already be activated by specific and contextual factors without her being aware of them. Therefore, her beliefs would have an effect on her judgments and behaviors prior to her conscious recalling.

Another objection to my description of the case could be that consciously or unconsciously Inga also has to bring her beliefs to her consciousness as Otto, first they become conscious and then they guide her actions. I think this is a very plausible objection to the case I described because it is true that most of the beliefs that would affect the conversation must be recalled. However, I still think that there must be some beliefs or other mental states of her that stay in the unconscious but influence her behaviors, say the influence of her expert knowledge of the architecture of the building they are in on her confidence in the conversation.

I admit that it is very difficult to describe those cases in which the subject's mental states stay in the unconscious but nevertheless affect her behaviors. That is why in the next section, for my examination of active unconscious mental states I will focus on the cases where our conscious actions do not match with our conscious judgments such as the cases of prejudice. Because in those cases I can claim that what is efficacious in our actions is not our conscious judgments but instead unconscious mental states. I should state at this point that, I do not claim that EM targets the cases I am going to discuss, however they are important for my argument regarding active unconscious mental states. Moreover, since C&C claims that EM targets dispositional states and doesn't say anything about the scope of EM, discussing those cases will help me to set the boundaries of EM.

3.1.3. Mismatches Between Conscious Judgments and Conscious Actions

There are well-known cases from which we can infer the unconscious activity of our mental states. For instance, often what we explicitly profess does not match with our actual behaviors: e.g. the cases of prejudice, and confusion. I might say that I believe that every human being is equal but I might act in such a way suggesting otherwise. This implies that the reason underlying my actions is something else than my conscious judgments, something I do not always have direct access. Instead of introspecting, I observe my actions and then I infer which mental state I am in. I take these cases as evidence of the existence of unconscious activity of our mental states that guide our actions while operating out of view. And the fact that we consciously judge the opposite implies that they remain unconscious while operating. The cases of unconscious prejudice are one of them.

Unconscious Prejudice

In the first chapter, I discussed the dispositional approach to belief: beliefs are characterized by the dispositions they entail. For a given belief P there is a dispositional stereotype associated with P. However, there are cases in which what we do comes apart from what we profess to believe. One paradigmatic example of those mismatches is implicit prejudices. What explains our behavior could be something different from what we profess to believe, it could be an implicit prejudice. In that case, implicit prejudice seems to be an active mental state having an influence on our conscious experience.

Schwitzgebel's well-known story of Juliet the implicit racist (2010) illustrates how implicit prejudices influence our behaviors: Juliet is a white college professor who explicitly expresses that all races are of equal intelligence yet acts in a way that suggests the opposite: for instance, when a black student submits an excellent essay, she feels more surprised than she would be when a white or Asian student to do so. This prejudice affects her grading as well. Another example would be someone who is fully consciously convinced that he is not a misogynist, but acting on the contrary. We could easily say that he has an implicit prejudice against women. In both cases, we could see that implicit prejudice affects subjects' behaviors without them noticing it.

One common way of approaching the cases of implicit prejudices is claiming that they point to a tension between occurrent conscious judgment and the standing state of belief. What Juliet professes to believe is her conscious judgment that races are equal. However, since she does not act in accordance with her judgment, we cannot say that she believes that races are equal. Her actions match a belief with the contrary content. The same applies to the misogynist person as well. In this approach, implicit prejudices are taken as beliefs. Thus, the subjects' belief states can be said active in the sense of being outside of her awareness, but having an influence on their conscious actions. However, it has been recently argued that implicit prejudices do not have to be beliefs (Crane and Farkas, 2021).

Crane and Farkas defend the view that our actions are influenced not just by our hypothetical beliefs, but also by the rest of our mental life. They think that understanding implicit prejudices in terms of beliefs is forcing the explanation in one direction or another: belief or judgment, and misses the psychological complexity. They offer a different understanding of implicit biases:

... a racist person's behavior need not spring from the belief that black people are inferior, but from the taste or preference: they might just prefer hanging out with white people, and may well discriminate against them because of this preference... Suppose Juliet chooses only white students for her special meetings after class because she finds them more appealing or attractive— this attitude is objectionable,

and leads to unjust discrimination, but it need not arise from a belief in the inferiority of blacks.

(Crane and Farkas, 2021)

Crane and Farkas' model for thinking about prejudice is broader than the belief approach and includes other standing states such as preferences and emotions. I agree with them that the belief/non-belief model is too narrow to capture lots of the psychological complexity, and we should adopt a broader model. However, In either case, implicit prejudice as a belief or a preference, my objection would still be valid. Because EM does not only target beliefs but also other standing states. Thus, whether implicit prejudices are beliefs or not, they are active unconscious mental states affecting our actions.

Let me compare Otto and Inga's cases in terms of prejudices. For Inga, there is no doubt that we can talk about the existence of implicit prejudice and its active role in her actions. But, what about Otto? Can we talk about the existence of implicit prejudice? It is almost impossible to talk about any kind of simplicity in Otto's case because every belief Otto writes down must be explicit to himself. Whenever Otto wants to do something, he will first look at his notebook and he will act upon what is written in the notebook. Thus there is no possibility of any gap between his actions and his beliefs. Moreover, as long as Otto does not consciously recall them, his beliefs do not have an active role in any of his actions. We can see that, even if Otto has an implicit prejudice somehow, it cannot have any influence on his behaviors without him consciously recalling it. Hence, what is implicit cannot be active.

Confusion

Another kind of case in which our actions can come apart from our judgments is confusion. Most of the time, we can easily figure out our beliefs or other mental states by bringing them to consciousness. When I am asked, "What is the capital of Turkey?" I easily retrieve from my memory the belief that "Ankara is the capital of Turkey". However, we cannot easily bring our beliefs to consciousness a lot of time. Often we find ourselves confused and contradictory when we reflect upon our beliefs. Those beliefs mostly concern more complex matters than a location of a place or a telephone number as in the case of Otto, such as political or personal matters involving our relationships with others. As a matter of fact, they are the ones who play a bigger role in navigating our lives.

Crane and Farkas's (2021) story of Sally who is trying to figure out what she believes about the moral status of animals is one of the good examples of those cases where the subject finds herself confused about a particular issue. Even though Sally acknowledges that buying and consuming dairy products is morally wrong, she often buys those products. There is clearly some kind of tension between her belief and her actions. When she reflects upon her beliefs, she finds conflict and confusion. There are many complex matters in our lives like Sally's, and most of the time we are not able to come up with a clear reason underlying our actions concerning those matters. That is not to say our reasons are always inaccessible, yet they can conflict with each other or even be repressed by the subject, say as a consequence of the feeling of guilt when it comes to more moral issues. For instance, Sally's reason might be that she does not think that a cow's life matters as the life of a person does, but cannot admit that she thinks in this way. Hence, she might repress this reason. Yet, it can still affect her actions.

We can compare Otto's and Inga's case: Otto could write down in his notebook only the beliefs he professes to believe, not the ones he is not aware of or even the confused ones. This suggests that Otto's notebook functions like Inga's memory as storage only in cases concerning straightforward beliefs but not the ones that are about the more complex matter and that are introspectively difficult to have access to. Thus, when it comes to explaining Otto's actions, we cannot always consult his notebook. Because there are other mental states of him he is not aware of or cannot figure out, that influence his actions.

3.2. Constructive Unconscious

In the previous section (3.1), my main aim was to show that unconscious mental states could be operative as a result of unconscious processes. They can be recalled unconsciously and influence our actions. In this chapter (3.2), I focus on another kind of activity of the unconscious: unconscious mental states can undergo processes: they can be generated, altered, or removed without the awareness of the subject. This phenomenon is closely linked to philosophical discussions about the nature of memory. As I discussed in (2.1), EM seems to be based on the storehouse view of memory according to which memory processing is nothing more than mere storing and retrieving. My aim in this section is to show that human memory is much more complicated than that, our beliefs undergo many changes without us noticing and naturally they result in different dispositions. If I am right, since Otto's extended state cannot undergo any unconscious processes, it cannot function in the right way as Inga's internal state. For my argument, I will discuss different various ways in which unconscious mental states can undergo processes.

3.2.1. Active Memory

According to the dominant view in early cognitive psychology, memories were similar to computer files that are placed in storage and retrieved when needed. Now it has been widely accepted that human memory processing is much more complicated than mere storing and retrieving (Schacter 1996). It has an active nature: what is stored, most of the time is being altered. New beliefs can be generated or stored beliefs could change. In both philosophy and psychology, the active nature of memory is mostly discussed by focusing on how the retrieval of memories can be reconstructive: what is retrieved is influenced by current mood, current goals, the beliefs. Thus, the subjective experience of remembering plays a big role in the retrieval of memories. My discussion will be in a similar line: I will be talking about how beliefs can change or be generated, but my main focus will be on the unconscious processes happening prior to the recall of the belief rather than the active nature of the remembering process.

For my argument regarding unconscious processes, I am going to discuss three cases: the first two are about the unconscious formation of beliefs, and the third one is about the unconscious alteration of beliefs. They are sufficient to support my claim about the effect of unconscious processes on dispositional profiles of beliefs. They point to important relevant functional differences between internal and extended states; because all of them end up in beliefs with certain disposition profiles.

Implicit Learning

The notion of implicit learning is a good example of an unconscious process that results in a standing state: it is defined as learning without awareness of what has been learned. As an example, we can think of children's ability to master their native language; they speak effortlessly and they do not learn it by studying vocabulary or grammar (Wilson, 2002). Although the definition of implicit learning is subject to some controversy, what is crucial for my purpose is that it demonstrates how the cognitive unconscious is capable of forming thoughts and beliefs without the need for awareness of the subject. A child who acquires thoughts and beliefs about her native language in this way naturally acquires the dispositions which come with that: e.g. disposition to speak her language fluently.

Reflection on Propositions

One of the functional relationships that are considered characteristic of belief is the reflection on propositions: if P follows straightforwardly from Q and if one believes that Q and is not antecedently committed to the falsity of P, typically causes the belief that P (Schwitzgebel 2019). Thus, as one of the dispositions of beliefs, we can think of the disposition to form other belief states. In order for this disposition to manifest, the subject does not have to consciously think about her belief. Her belief Q could be activated unconsciously without her recalling her belief from her memory and result in the belief P. For example, Inga's belief "MoMA is on 53rd Street" causes her to form another belief "There is a museum on 53rd Street". Can we ascribe the same dispositional relation to Otto's extended belief state? Because of the absence of unconscious processing of his belief, it is difficult to do so. Otto can infer this only by consciously recalling his belief.

Lack of Awareness of One's Feelings

Wilson describes the phenomenon of lack of awareness of one's own feelings. He quotes Carpenter:

Our feelings towards persons and objects may undergo most important changes, without our being in the least degree aware, until we have our attention directed to our own mental state, of the alteration which has taken place in them.

(Wilson, 2002)

Although Carpenter only talks about feelings here, we can easily think of it in terms of beliefs and other standing states as well: someone's unfounded belief towards another might undergo changes through her interactions with them and naturally develop new dispositions towards them without her being aware of it. We cannot imagine any of Otto's beliefs in his notebook undergoing any kind of change without his being aware of it.

3.3. Clark's Response

Clark (2010) discusses a similar concern to mine: Terry Dartnall argues that the plausibility of the Otto scenario depends on an outdated image of biological memory. Dartnall claims that the image of biological memory as a kind of static store of information doesn't do justice to the active nature of real memory. What he means by "active" does not exactly correspond to my discussion regarding active memory, it is more concerned with reasoning. To illustrate, he offers the following example: "Suppose I have a chip in my head that gives me access to a treatise on nuclear physics. That doesn't make it right that I *know* about nuclear physics." (Clark 2010). Dartnall focuses on the similarity between memory processing and reasoning. My concern is more about the dispositions resulting from unconsciously generated or altered beliefs. Yet, I agree with Dartnall that the Otto scenario does not do justice to the active nature of real memory.

Clark responds to Dartnall's objection by pointing out that in EM there is no claim that the notebook considered alone would constitute any kind of cognitive system: there is no identity claim between the biological memory and the notebook. He admits that the information "...which is stored in Otto's notebook won't shift or alter while stored away", yet he also adds "But *when called upon*, its immediate contributions to Otto's behavior still fit the profile of a stored belief. Information retrieved from the notebook will guide Otto's reasoning and behavior in the same way as information retrieved from biological memory" (Clark, 2010). He even says that the fact that what is retrieved might be different is unimportant. What he sees as important is the fact that the information called will guide Otto's behavior in the same way. According to Clark, we should not look for the functional similarity in the content of Otto's belief. Because even though Otto had stored the information in biological memory, he may end up having a false memory. Clark's point is that the functional similarity lies in how Otto's belief guides his actions: e.g. the way he answers questions and the further belief he forms. Then the question arises regarding what the sufficient functional similarity is when comparing Otto's and Inga's cases.

In other words, even though there are some functional differences between Otto's extended state and Inga's internal state due to the absence of unconscious processing in the former, C&C could argue that what matters is the macro-functional rather than the micro-functional role of these states. Thus, we can think of Otto's case in terms of this idea: Otto's notebook functions, by and large, in the same way as Inga's biological memory, insofar as it entails the same action when combined with the same desire (Farkas, 2019). That is why C&C can say that both belief states have similar, but not identical, functional roles.

I do not find Clark's response convincing enough, because while Clark takes the 'immediate contributions of the stored belief when it is called upon as its macro-functional role, he disregards most of the dispositions the belief results in and the actions it explains prior to recall. In this way, C&C can ignore the unconscious operations of the belief happening out of view. However, the issue in the thought experiment was: does Otto have the belief before recalling the information in the notebook? Thus, what is happening prior to calling should matter for answering the question. Since in the Otto and Inga example there is no large role of the unconscious operation as a crucial part of the typical functional profile of her belief. Thus, I think we need to move away from examples including regimented kinds

of information, e.g. the location of MoMA, and telephone numbers, which are less likely to operate unconsciously. Considering the normal functional role of belief, in general, is more appropriate in testing to what extent EM applies.

C&C argue that extended beliefs play the most important roles associated with the concept of belief. As functionalists, they take beliefs as dispositions. The simple picture for a functionalist is: that what someone does is determined by what they want, together with what they believe. Thus, beliefs play a crucial role in explaining and guiding our actions. The question is "How important is unconscious processing as one of the functions of belief?" In answering this question there are two ideas we should consider: (1) beliefs are unconscious (dispositional) mental states and (2) by operating unconsciously, beliefs result in certain dispositions. If we accept these two ideas, it follows that unconscious processing is one of the functional relations belief is involved in.

In response to my proposal about the nature of the unconscious beliefs, Clark could bring up the Martian intuition, as he did in response to RAA: imagining a Martian whose beliefs are all the results of conscious processes and can be recalled and be subjected to change only when she brings them to consciousness. Would we still credit her as having beliefs? Considering the picture I propose, the answer is not that obvious. It seems easier to say 'yes' to beliefs involving regimented information like locations, dates, and telephone numbers that have no major roles in guiding our lives except when we recall them. But it would be a 'no' for the kind of beliefs I discussed throughout the paper that guide actions even prior to our conscious recollection. The important difference between my objection and RAA's is that unconscious operations of mental states are not exclusive to human cognition, but rather related to their unconscious nature. I have not discussed any other case than human beliefs but I think it is plausible to think that the phenomenon of the active unconscious is not exclusive to human beings.

One of the advantages of taking unconscious mental states as involving unconscious processing is that it fits well into the functionalist story which EM relies on. According to functionalism, our mental states form a complex network of interrelated dispositional and causal connections. To think these mental states operating and interacting with each other without the subject's awareness is more plausible than to think that they wait there passively to be brought to consciousness by the subject. I will not discuss this claim here further because although C&C take belief as an unconscious mental state, there is still room for them to take its unconscious nature differently than I did in reference to the notion of "cognitive unconscious". Thus they do not have to accept the perspective I propose. But then, for their thesis regarding the extension of unconscious mental states, they need to provide an account that explains their unconscious nature.

3.4. Conclusion

Clark's and Chalmers' argument for the Extended Mind Thesis relies on functionalism about mental states, in particular beliefs. By comparing an internal belief and an extended state by their functional roles, they claim that the extended one is also a belief. One of the main claims of EM is that in both extended and internal cases, the information is reliably there when needed and is available to guide actions. Therefore, they conclude that extended beliefs could play the most important functional roles associated with our concept of belief.

Although C&C take beliefs as standing states and claim that what extends is the unconscious part, they do not discuss what it is for a mental state to be unconscious and its implications for the functional role of the mental state. In response to this, I examined the

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nature of the unconscious mind based on modern research in psychology, the Freudian insights, and the common sense understanding of belief. What I found out in relation to belief is that the unconscious mind is more than a storehouse for our beliefs; it plays an active role in our cognition, and most of the time has great effects on guiding our actions without being consciously recalled.

I identified two functional differences between internal and extended belief states: The first (1) is that while internal states could guide our actions without being intentionally retrieved from the memory, extended states cannot; the second (2) is that while internal states can be generated or changed by undergoing unconscious processes, thus could result in new dispositions, extended states cannot. While discussing the first phenomenon, I examined cases where our conscious judgments do not match with our conscious actions: e.g. prejudices, confusion, or Freudian repressed desires. My aim was to show that what is underlying our actions is not all the time mental states we are aware of, but might be unconscious mental states operating out of view. I acknowledged that repressed mental states or prejudices are not typical examples of standing states EM targets, thus their functional roles cannot be claimed to be the typical functional roles of beliefs. On their own, they do not support my claims about functional differences between extended states and real beliefs, but they provide evidence for the unconscious activity of our mental states.

Since the cases of prejudices or repressed mental states are not sufficient for my claim regarding the functional differences between internal and extended states, I appealed to Freud's theory of active unconscious mental states which he carefully distinguishes from the narrower domain of repressed mental states. This distinction showed that, unlike the common interpretation, the Freudian unconscious is more similar to the modern cognitive unconscious. According to Freud, there exist active unconscious mental states that are easily accessible,

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unlike repressed ones. These unconscious mental states can be activated unconsciously and have great effects on our conscious actions. My discussion showed that besides inaccessible ones, even many accessible mental states resist extending because of their unconscious nature.

I discussed the second functional difference in reference to the active nature of memory. I contrasted the storehouse view of memory with a constructive view. While according to the first, recalling is mere retrieving, and what is stored does not change; according to the latter, memory processing is more complicated than mere retrieving, what is stored is generally altered without the awareness of the subject. Different from the general discussion of constructive memory which focuses on the subjective experience of remembering, I focused on unconscious processes happening prior to the recall of memories. As examples, I described three cases where our beliefs are generated or altered as a result of undergoing unconscious processes. In all these cases, the subjects' dispositions changes in accordance with the processes happening out of view. My discussion showed that extended states cannot undergo any unconscious processes, thus they cannot result in the same dispositions as real beliefs.

I acknowledge that these two phenomena: (1) operative unconscious and (2) constructive unconscious do not necessarily apply to all standing states. However, I tried to show that most of the time our everyday actions are guided by mental states operating unconsciously and many of our mental states are undergoing unconscious processes while they are stored in the memory. EM seems plausible for straightforward unconscious beliefs involving the regimented kind of information like dates, locations, or phone numbers that are less likely to operate unconsciously. Thus, I do not claim that only internal beliefs are genuine beliefs. Yet, my discussion showed that the scope of the extended mind thesis is more limited than Clark and Chalmers propose.

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