

BELIEFS ABOUT THE FUTURE – HOW WHAT WILL HAVE BEEN DECIDES ON HOW WE ARE JUSTIFIED

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ABSTRACT. The importance of the justification of our beliefs is a long-debated question. The question of how our memory beliefs are justified, however, is a question we have usually neglected as our memory does not seem to draw much attention to itself. As long as it works, we do not even notice that we use it most of the time.

In my opinion, the question of how our memory beliefs are justified, however, should play a bigger role in the philosophical debate. The reason for this claim is that most of our beliefs are memory beliefs. A position, I will argue for in this paper. Based on empirical findings in Cognitive Science, I will explain that our memory is not only involved in forming beliefs about the past but more controversially in forming beliefs about the present, in reasoning processes and even more controversially in forming beliefs about the future.

If beliefs about what has been, about what is the case in the present and even about what will have been the case in the future are memory beliefs, reconsidering our strict focus on the justification of mere beliefs seems to be a change in debate worth considering.

Keywords: Memory, Philosophy of Memory, Belief, Cognitive Science, Epistemology of Memory, Philosophy of Cognitive Science

Introduction

In the following, I will argue for the view that most of our beliefs are memory beliefs. I will claim that beliefs about the past, the present, reasoning processes and even beliefs about the future are memory beliefs. Therefore, I claim

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that the philosophical debate is way past due to be changed to a debate about how our memory beliefs are justified and not only our beliefs in general. After all, if most of our beliefs are memory beliefs, the question of how they are justified is of utmost importance.

Beliefs about the past

In the following, I will introduce the case of Clive. Clive is a person who has lost most of what we would usually consider to be his memory. By introducing Clive, I will ask the question of what beliefs Clive is not able to have anymore and thus which beliefs of the sum of our beliefs are beliefs which should be understood as memory beliefs. I will claim that most of the beliefs we form are memory beliefs and that we should therefore care about the justification of memory beliefs. While Clive's memory beliefs or better, the beliefs Clive is not able to form anymore, are beliefs about the past, I will extend my argumentation by claiming that it is not only beliefs about the past which our memory constitutes but also beliefs about the present and the future in the subsequent sections. The case of Clive can thus be seen as a starting point in arguing for the view that most of our beliefs are memory beliefs.

Admittedly, it would be easier to consider a case in which there is no memory whatsoever involved to show which beliefs of our beliefs are memory beliefs. However, since people without any memory whatsoever simply do not exist, we will have to make do with the closest we can get to a person without memory and consider the case of Clive. His loss of memory is retrograde and anterograde. So, his loss of memory extends to a loss of memory of events that occurred before its onset and to the inability to make new memories after the event that caused the memory loss. With this, Clive is known as one of the people, if not the person, with the most severe memory loss on earth (Baddeley et al., 2020, 4).

The cause of Clive's severely impaired memory is that he had contracted a virus that attacked his central nervous system resulting in a brain infection. This infection rendered Clive densely amnesic. Clive is not able to keep information in mind for longer than a few seconds. This can have funny effects like Clive greeting his wife enthusiastically every time she enters the room even though she has just left. Furthermore, as his interpretation of him not knowing what happened just moments before was that he just regained consciousness, he would not grow tired of telling exactly that to every visitor he got. Even more, he would write down this "new insight" into a notebook. Crossing out the previous line which also stated that he just recently regained consciousness. Even though this story sounds funny to a third observer, for him it felt like a permanent present or as he described it: "Hell on earth", "[...] like being dead—all the bloody time" (Baddeley et al., 2020, 4). Clive

could not follow a TV series or a book because once he got to the next section, he would already have forgotten what it was built on. Nevertheless, it was not like Clive did not know anything about what was going on in his life. He was able to remember that he had spent four years at Cambridge University or that he had conducted the first modern performance of Handel's Messiah. Still, his memory about his life was vague. He had, for instance, also written a book on the composer Lassus but could not remember anything about it. What he, nevertheless, could still do without any limitation, so, as if he never had any brain injury, was conducting his old choir. He read the score of a song without any difficulties and was even able to accompany himself on the keyboard while singing. In this moment, one could say that he was his old self. Yet, once the choir left again, he was not able to follow any other task. Even after twenty years, Clive is still in the same condition. He learned to live with his impairment (Baddeley et al., 2020, 4).

In the case of Clive, many beliefs one would usually have about oneself, and the world are not available to him anymore. I will explain what exactly is missing for Clive in the following and in which case beliefs should be seen as memory beliefs since they rely on memory in order to be formed.

I will start with the least controversial beliefs when it comes to the question of what we would usually consider as memory beliefs. These beliefs are memories about Clive's own past such as whether he has written a book about Lassus, where he went to university or whether he has just regained consciousness. These beliefs are beliefs we would usually consider as memory beliefs as they highly rely on our long-term memory. The long-term memory is responsible for storing information for a longer period of time. It can be mainly divided into two parts. One would be the so-called declarative or explicit memory. This is the part of memory we would comprehend as related to long-term memory as a layperson. It consists of the episodic memory and the semantic memory (Baddeley et al., 2020, 13).

The episodic memory provides us with the ability to remember specific events (Baddeley et al., 2020, 14) such as where we have gone to university. A memory belief Clive still has. The semantic memory, in contrast, is not that specific in this sense. It stores accumulative knowledge about the world (Baddeley et al., 2020, 14) such as that we have written a book or that we have conducted a choir. Memory beliefs Clive does not have anymore. I take it, that both forms of memory are uncontroversial when it comes to the question of whether we have memory beliefs and not just beliefs based on these mechanisms. When it comes to our past, the beliefs we have are memory beliefs.

In addition, there is a further part of long-term memory we would not usually consider when it comes to memory beliefs. As a matter of fact, these beliefs seem to be more a part of knowledge-how and it is thus more controversial whether

they are beliefs at all. Yet, for the sake of completeness, I will also shortly consider the second part of long-term memory in the following.

The second part of the long-term memory is the non-declarative or implicit memory. This part of memory also often works in a normal way with amnesic patients as this form of learning is preserved. An example of implicit memory would be the so-called classical conditioning. Classical conditioning is most commonly known under Pavlov's dog. In classical conditioning, a neutral stimulus, such as the ringing of a bell, is paired with an unconditioned stimulus, like presenting food. Presenting food will elicit an unconditioned response. That is salivating in the case of Pavlov's dog. After the neutral stimulus is paired with the unconditioned stimulus repetitively, the unconditioned stimulus becomes a conditioned stimulus and the unconditioned response a conditioned response. At some point, the conditioned stimulus can even be left out. Only the presenting of the neutral stimulus will elicit the conditioned response. So, presenting the dog with the sound of a bell will make it salivate even though there is not any presentation of food happening (Mazur, 2016).

As you can see, this kind of learning does not require people (or other beings) to remember how and when they learned what they learned. They can learn something new without this kind of information (Baddeley et al., 2020, 14). This is also most probably the part of memory which enables Clive to still conduct his old choir. Yet, whether there is belief involved in Clive's ability to conduct his old choir is an open question. I will not answer it here. However, if there is belief involved, this belief most probably relies on Clive's memory of how to conduct a choir, read a score etc. as it is also a belief about how the past has been like. So, if there is belief in remembering implicitly, remembering implicitly is not only belief but due to its basis on memory a memory belief.

Explicit and maybe implicit memory beliefs are the beliefs we would usually connect to what memory beliefs are. However, they have a way bigger scope. Not only have we memory beliefs about the past with the help of our long-term memory but also with our short-term memory. The short-term memory can be seen as the temporary storage of small amounts of information which subsequently will pass information on to the long-term memory (Baddeley et al., 2020, 11). For instance, seeing your wife entering the room again, being able to tell whether she has just left the room or is merely re-entering depends on short-term memory. Additionally, the ability to watch a TV series or read a book also depends on short-term memory as we have to hold a small amount of information present in order to be able to follow the events within the book or TV series. All of these events are events Clive is not able to follow due to his impaired memory. This means, that even beliefs about the close past have to be considered as memory beliefs as they rely on short-

term memory. Furthermore, beliefs about the past even include lesser periods of time than the just considered period.

While Clive is not able to do many things which would rely on his short- and long-term memory, he is able to see the present as continuous and not as static. So, when he watches a TV-series, he sees the depicted objects and people moving and he hears the appearing sound as a sentence, a word or sound. This is possible due to his apparently unimpaired sensory memory. As a matter of fact, what we actually see while watching a TV series is a series of frozen images interspersed with brief periods of darkness. In order to be able to see continuous moving images, our brain needs to store a frozen images up until the arrival of the next frozen image. The storage system which is responsible for this is the visual part of the sensory memory. As we do not only perceive visual input as continuous, there is a whole series of sensory memory systems being responsible for storing information for a very short amount of time (Baddeley, 1999, 9). This leaves us with every belief being formed on the basis of perceived information necessarily being a memory belief as memory was already involved in processing the rare input. So, not only beliefs about the far past but every belief about perceived information is not only a belief but a memory belief as memory is highly involved in forming the belief. Without perceived and processed information, there would not be a belief at all. So, most beliefs about the past have to be seen as memory beliefs.

Beliefs about the present and future

Even if most of our beliefs about the past have to be seen as memory beliefs, there are more beliefs than just beliefs about the past. Beliefs about the present, beliefs derived from reasoning processes and beliefs about the future do not seem to need memory at first glance. In the following, I will show that this is not the case. We also need memory for beliefs about the present, past and beliefs derived from reasoning processes.

Beliefs about the present do not seem to need memory as they are beliefs about this instance and not of something we have perceived in the past. In order to believe that I am now seeing a pigeon, I seemingly do not need to know anything about the past. Yet, beliefs about the present still have to be seen as memory beliefs for the two following reasons. Firstly, if beliefs are still formed on the basis of perception which is the case in forming the belief that I am seeing a pigeon now, they rely on memory as it is the sensory memory which is responsible for processing the seeing of a pigeon and enabling us to form a belief about seeing a pigeon.

Secondly, if we form a belief, we need some time to form it. This means that we do not form a belief about the present anymore but about the past. Having a belief about the past, however, requires memory to present us with formerly processed information in order to form a belief again. As memory is involved in this process, the belief we have is a memory belief.

However, there are beliefs which are not necessarily of any time but an outcome of some reasoning process in general and thus might not necessarily rely on memory. Yet, beliefs derived from reasoning processes have to be seen as memory beliefs as well due to the following two reasons. Firstly, if our reasoning process is based on information drawn from perception, memory is involved again, and our beliefs would be memory beliefs. Secondly, even if there is no perceptual information involved, we need to hold words, sentences or even other beliefs present in order to be able to actually reason. Otherwise, we would just lose track of our thinking process. Holding information present which would otherwise been lost, however, is again a job memory does. So, the beliefs we would form in this case are also cases in which we form memory beliefs.

If beliefs derived from reasoning processes, beliefs about the past and the present are memory beliefs, beliefs about the future might be left as beliefs which are not memory beliefs. Yet, as argued for in beliefs about the past and present, as soon as we rely on prior information, we rely on our memory and thus form memory beliefs and not only beliefs. However, forming a belief about the future without relying on prior information even if that information is in the very close past such as in the sensory memory does not seem to be possible. After all, there would be no base to form a belief from if we did not rely on prior information. As a matter of fact, this is not the only evidence we have of being involved in belief forming processes about the future. Cognitive Science research even particularly reserves a part of memory for remembering to carry out an intended action at a specific time in the future. This is the so-called prospective memory. Prospective memory consists of different stages. Firstly, one has to form an intention about what one will be doing in the future such as calling your granddad tomorrow as it is his birthday by giving oneself a cue such as marking this day in red in your calendar. Afterwards, sometime after the intention formation passes up until you will actually call your granddad and thus execute your intention. In this case, this will be around a day as your granddad's birthday will be tomorrow. So, your retention interval is around a day. At the point you detect the cue of having marked the day in question in red, you retrieve what you have planned to do and recall that you wanted to call your granddad. After having successfully recalled your intention, you will execute your intention and call your granddad (cf. Baddeley, Eysenck, Anderson, 2020, 683 f.).

With prospective memory, we do not only remember to perform a specific action at a future time but also form beliefs about the future in order to not forget this action by forming a belief about what we want to be doing, by leaving us a cue and by recalling our formerly had intention. So, beliefs formed with our memory are not only involved in beliefs about the future in general but also when it comes to our practical everyday life.

In this paper, I have shown that no matter whether we form a belief about the present, are involved in reasoning processes or form a belief about the past or the future, as soon as we use any prior information, even if it is just what we have perceived, memory comes in. This means, that most of our beliefs must be seen as memory beliefs as they could not be formed without memory. If such a big part of our beliefs needs to be seen as memory beliefs, most of our beliefs are memory beliefs and the question of how they are justified, is a question worth considering.

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