



Ockham on Memory and Double Intentionality

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Abstract

Ockham developed two theories to explain the intentionality of memory: one theory that takes previously perceived things to be the objects of memory, and another that takes one's own earlier acts of perceiving to be the objects of memory. This paper examines both theories, paying particular attention to the reasons that motivated Ockham to give up the first theory in favor of the second. It argues that the second theory is to be understood as a theory of double intentionality. At the core of this theory is the thesis that one directly remembers one's own acts, and indirectly also the objects of these acts. The paper analyzes the cognitive mechanism that makes this double intentionality possible and examines the causal account that Ockham gave for explaining the emergence of acts of remembering. It emphasizes that he accepted nothing more than a causal chain of acts and habits, thereby offering an ontologically parsimonious theory of memory.

Keywords Abstractive cognition · Causation · Habit · Intentionality · Intuitive cognition · Memory

1 Introduction: Two Types of Memory

Suppose you saw an impressive deer last summer while you were on a hiking tour in the Swiss Alps, and you are now remembering this event. What exactly do you remember? At first sight, the answer seems obvious: you remember the deer as it was standing there in front of you, a beautiful animal with huge antlers. This is why you can describe it in detail when you now talk about the hiking tour. The friends who accompanied you on that tour remember the same thing, since the deer was present to all of you; hence you can all talk about the very same thing. Technically speaking, this means that there are now *many* intentional acts directed at *one* object.

But this is not the only possible description of the situation. You could also say that, strictly speaking, all you remember is your own seeing of the deer. For instance, you remember that you saw it in the early morning, just after reaching a clearing in the forest. It is thus not the deer that you directly remember; you remember it only insofar as it was the content of your act of seeing. It is therefore misleading to say that you and your friends remember the very

same thing, for each of you remembers his or her own act of seeing. And you cannot talk about the deer unless each of you somehow brings back his or her act and then focuses on its content. This means, of course, that there are now *many* intentional acts that are immediately directed at *many* different objects.

These two ways of specifying the object of an act of remembering give rise to a crucial question: how is the intentionality of memory to be understood? Is memory directed at things that were present in the past, or at one's own acts of cognition that occurred in the past? Or is it directed at both? And if so, how can there be double intentionality? This is the problem I want to discuss by examining William of Ockham's theory of memory. To be sure, Ockham was not the first medieval author to analyze the intentionality of memory.¹ Nor was he the first to notice that acts of remembering are very special acts that somehow bring back both external things and one's own acts. John Duns Scotus had already pointed out that it would be inappropriate to understand memory as a mental phenomenon that relates a person simply to previously perceived things, for it relates her just as much to her own previous acts of perceiving. Scotus therefore emphasized that it is important to distinguish between two types of object:

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¹ Detailed discussions started in the thirteenth century and were inspired by Aristotle's *De memoria and reminiscencia* and Augustine's *De Trinitate*. For a helpful overview, see Müller (2015). On the broader context of medieval theories of memory, see Coleman (1992) and Carruthers (2008).

perceived things and earlier acts of perceiving.² But Ockham was probably the first to work out two theories of memory: one theory that takes earlier perceived (or otherwise cognized) *things* to be the immediate objects of memory, and another that takes one's own earlier *acts* to be the immediate objects of memory.³ When developing these two theories, he gave a detailed account of the cognitive activities and dispositions that are required for an act of memory to take place.

In what follows, I will take a closer look at both of these theories. I will first present the early “thing theory” and discuss some problems involved with it (Sect. 2). Then I will turn to the later “act theory” and examine to what extent it can solve the problems posed by the earlier theory (Sect. 3). The cognitive mechanism that links memory to items in the past, be they perceived things or one's own acts, plays a crucial role in both theories. I will therefore look at this mechanism and spell out the causal chain that leads from an event in the past to an act of remembering (Sect. 4). Hopefully, this will make clear how Ockham integrated his theory of memory into a comprehensive theory of intentionality and causation (Sect. 5).

2 Things as the Objects of Memory

Like all medieval authors in the Aristotelian tradition, Ockham assumes that there is a basic form of memory that can be found in both rational and non-rational animals.⁴ This is sensory memory, which is located in the inner senses and brings back sensory representations—mostly visual images—that have been acquired in the past. For instance, when a rabbit sees a deer, it immediately receives a visual image of that animal. It stores this image and eventually reactivates it at a later moment when it encounters another deer, thereby realizing the similarity between the two animals. In the same way, human beings can receive, store, and reactivate visual images. But Ockham is not so much interested in this kind of animal memory. He focuses rather on *intellectual* memory, which enables human beings to make judgments about earlier perceived things.⁵ Clearly, it is these

judgments that distinguish human beings from non-rational animals. For instance, when you remember the deer, not only are you able to reuse an image, but you can also give a detailed description of that animal and you can even judge that you saw it with certain features at a certain place. What exactly enables you to do that?

Ockham answers this question by explaining memory against the background of his general theory of human cognition. According to this theory, there are two basic forms of cognition.⁶ The first is *intuitive* cognition. It is directed at an object, involves the production of a concept for that object, and is immediately followed by a judgment about the object's actual existence and presence. This is the kind of cognition we usually have when we perceive an object. For instance, when seeing a deer, you directly apprehend this animal, form the concept ‘deer’ (a mental term) and spontaneously produce a judgment like ‘A deer is standing in front of me.’ Note that intuitive cognition itself is not yet a judgment;⁷ however, it gives rise to a judgment and therefore has a distinctive causal function. In contrast, *abstractive* cognition, the second form of cognition, lacks this function. It abstracts from the actual existence and presence of the object and therefore does not give rise to a judgment about actual existence and presence. For instance, when you imagine a deer, you simply apprehend this object but cannot judge that it actually exists or that it is really standing in front of you.

It is against the background of this distinction between two types of cognition that Ockham discusses the problem of memory. He explains the cognitive steps that lead to an act of remembering as follows:

But imperfect intuitive cognition is the cognition by which we judge that a thing once existed or not. This is called ‘remembering cognition.’ For instance, when I see a thing intuitively, a habit is produced that makes [me] inclined to have an abstractive cognition by which I judge and assent that such a thing once existed because I once saw it.⁸

² See *Ordinatio* IV, dist. 45, q. 3, n. 94 (Vat. XIV, 167–168). All references to Scotus are from John Duns Scotus (2013). For detailed analysis, see Adams McCord and Wolter (1993) and Cross (2014), pp. 59–63.

³ In her pioneering study, Adams McCord (1987), pp. 515–525, already pointed out that Ockham developed two theories. Both are presented in the *Reportatio*, which is based on the lectures on the *Sentences* (given in 1317–1319).

⁴ See *Reportatio* IV, q. 14 (OTh VII, 313–316). All references to Ockham are from William of Ockham (1967–88). Ockham follows a long Aristotelian tradition that attributed sensory memory to non-rational animals; see Oelze (2018), pp. 168–177.

⁵ He is even interested in purely intellectual memory, which is not linked to any sensory representation. In fact, he discusses the problem of memory mostly by focusing on the soul that has been separated

Footnote 5 (continued)

from the body after death; clearly, this soul has no sensory representations. On the methodological function of the afterlife situation, see Perler (2001).

⁶ See *Ordinatio* I, prol., q. 1 (OTh I, 30–33), and *Quodl.* V, q. 5 (OTh IX, 495–500). I confine myself to sketching the main points. For extensive analysis, see Adams McCord (1987), pp. 501–515, Karger (1999), Panaccio (2004), pp. 5–20, and Schierbaum (2014), pp. 203–228.

⁷ It is a “non-complex cognition,” as Ockham emphasizes when contrasting it with a judgment, which he calls a “complex cognition.” See *Ordinatio* I, prol., q. 1 (OTh I, 22).

⁸ *Reportatio* II, qq. 12–13 (OTh V, 261): “Cognitio autem intuitiva imperfecta est illa per quam iudicamus rem aliquando fuisse vel non fuisse. Et haec dicitur cognitio recordativa; ut quando video aliquam rem intuitive, generatur habitus inclinans ad cognitionem abstrac-

In this passage, Ockham mentions three steps at the intellectual level that are required for successful memory. First, there is an intuitive act based on a perception. Thus, you see the deer and come up with the concept ‘deer,’ which immediately makes you produce the judgment ‘There is a deer in front of me.’ Second, a habit is produced, which is a stable disposition that can be reactivated whenever you want to think again about the earlier perceived thing. Thus, you acquire a disposition that enables you to think again about the deer at a later moment. Finally, you activate this disposition and produce a new act of cognition. This act is not a perfect intuitive act because it cannot cause the judgment ‘There is a deer in front of me.’ It is rather an abstractive act that only causes the judgment ‘There *was* a deer in front of me.’

Ockham’s terminology is a bit confusing, since he calls an act of remembering both an “imperfect intuitive cognition” and an “abstractive cognition,” as is evident from the quote.⁹ But one can understand why he uses both labels if one takes into account that such an act shares something with both types of cognition. On the one hand, it causes a judgment about the existence of an object and thereby meets the criteria for an *intuitive* cognition. Since it only causes a judgment about its past existence, it is an imperfect intuitive cognition. On the other hand, it completely abstracts from the object’s actual existence and presence and thereby meets the criteria for an *abstractive* cognition. It is, as it were, neutral about whether or not the earlier perceived object still exists. Given the hybrid character of this cognition, it can be called “imperfect intuitive” or “abstractive.” But no matter what it is called, it is clear that it is directed at a thing that was present and perceived in the past.

It is crucial for Ockham that the production of this special cognition is possible because of the acquisition of a habit. The habit is, as it were, the bridge between the initial perfect intuitive cognition and the later act of remembering. But how can this habit be acquired? Usually, a habit comes into existence when many acts of the same type are repeatedly produced. For instance, one acquires the habit of solving mathematical problems when one produces again and again acts of mathematical thinking; or one acquires the habit of acting justly when one acts again and again in a just way. To put it in general terms, many tokens of the same type lead to a habit for producing new tokens of that type. In some cases, even a single token can be sufficient.

Ockham fully agrees with this Aristotelian principle.¹⁰ However, a modern reader could be suspicious about its

application to the case of memory. As has become clear, the initial act is an act of perfect intuitive cognition. When this act is repeatedly (or perhaps just once) produced, a habit for this type of act should come into existence, and the reactivation of the habit should make a new act (or even many new acts) of the same type possible. Thus, only acts of *perfect* intuitive cognition should come into existence when there is a habit for this type of act. But this is not the case here; as Ockham says explicitly, an act of remembering is an *imperfect* intuitive act (or abstractive act). How can that be? There seems to be a strange shift from one type of act to another.

Ockham seems to be aware of this problem. He acknowledges that the mere acquisition of a habit does not enable a person to switch from one type of act to another, for a habit makes possible only new acts of the same type that resulted in the habit.¹¹ So, more seems to be required for the generation of an abstractive act. What could that be? Ockham makes the following suggestion, thereby correcting the initial version of his theory:

It is therefore necessary to posit an abstractive cognition that exists together with the perfect intuitive cognition. This abstractive cognition is a partial cause (together with the intellect) for the production of a habit that inclines the intellect in such a way.¹²

Obviously, Ockham assumes that it is not enough to have just a perfect intuitive cognition. One also needs an abstractive cognition so that the appropriate habit will be produced, namely, a habit that makes possible a new act of the same type: an abstractive (or imperfect intuitive) act of cognition. This shows that more than a simple three-step process is required. To generate an act of remembering, a person needs to go through a four-step process. This process can be described as follows:

- (1) The intellect produces a perfect intuitive cognition of an object *x*, and this cognition immediately causes the judgment ‘*x* is present.’
- (2) The intellect produces an abstractive cognition that coexists with the intuitive cognition.
- (3) The presence of the abstractive cognition gives rise to a habit.
- (4) The use of the habit makes a new abstractive (or imperfect intuitive) cognition possible, and this cognition immediately causes the judgment ‘*x* was present.’

Footnote 8 (continued)

tivam, mediante qua iudico et assentio quod talis res aliquando fuit quia aliquando vidi eam.” All translations are mine.

⁹ See also *Reportatio* II, qq. 12–13 (OTH V, 262 and 266).

¹⁰ He endorses it in *Quodl.* II, q. 18 (OTH IX, 190).

¹¹ *Reportatio* II, qq. 12–13 (OTH V, 262): “Cuius ratio est quia habitus semper generatur ex actibus inclinantibus ad consimiles actus eiusdem speciei.”

¹² *Reportatio* II, qq. 12–13 (OTH V, 263): “Igitur oportet necessario ponere aliquam cognitionem abstractivam simul cum cognitione intuitiva perfecta existente, quae est causa partialis cum intellectu ad generandum istum habitum sic intellectum inclinantem.”

By appeal to this four-step process, Ockham can present an elegant solution to the main problem in the initial version of his theory. He can now explain why the act of remembering is an abstractive (or imperfect intuitive) cognition and hence a different type of act than the initial perfect intuitive cognition. The production of such an act is possible because at the beginning of the process there were present both a perfect intuitive *and* an abstractive act, and the abstractive act gave rise to a habit that made a later act of the very same type possible. On this account, there is no violation of the Aristotelian principle that a habit can only give rise to an act of the same type as the initial act. On the contrary, there is now a strict application of this principle: an initial abstractive act gives rise to a habit that makes a new abstractive act possible. The type identity of the act is preserved.

Clear and elegant as this revised version of the theory may be, it still looks puzzling. A modern reader could object that it is strange to introduce *two* acts at the very beginning of the cognitive process. Why should one have both a perfect intuitive and an abstractive act when perceiving a thing? Why should these two acts even coexist? Suppose you now see a deer in front of you. Why should you think about it in such a way that you immediately judge about its actual presence (in virtue of your intuitive act) and yet refrain from making this judgment (in virtue of your abstractive act)? It rather seems that the perfect intuitive act rules out the abstractive act, for when you have a perfect intuitive act you cannot but judge that the deer is actually present. There is a causal mechanism that immediately triggers this judgment, and the mechanism makes it impossible to have another act that somehow blocks this judgment. Of course, it is *ontologically* possible for two acts to coexist in the same person at the same moment. In his theory of reflection, Ockham sees no problem in the coexistence of a direct act (i.e., an act directed at an external object) and a reflexive act (i.e., an act directed at the first act).¹³ After all, acts are just accidents of the soul, and there can be many accidents at the same time in the same subject. But it seems *phenomenologically* implausible that two acts with different—or even opposing—causal functions coexist. For in that case a person would be somehow torn between judging and not judging about the presence of an object—an inner conflict she simply does not experience when she perceives a clearly visible object.

Given this problem, Ockham has a choice between two equally unsatisfactory accounts of memory. (1) He could stick to the initial version of his theory and maintain that there is just an act of perfect intuitive cognition at the beginning of the cognitive process. But then he would face the problem

of how a habit that gives rise to an abstractive cognition can be produced on the basis of an intuitive act. How can there be a habit that switches, as it were, from one type of act to another? (2) To avoid this problem, Ockham could refer to the revised version of his theory and point out that there is both an intuitive and an abstractive cognition at the beginning of the cognitive process. Thanks to the abstractive cognition, the appropriate kind of habit can emerge. But then he would face the objection that he is positing two acts that somehow oppose each other; and as long as he does not explain how they can coexist, his appeal to two acts does not look very plausible.¹⁴

3 Acts as the Objects of Memory

Ockham does not explicitly discuss the problems involved with the two versions of his “thing theory,” but he seems to be aware of them, since in the end he gives up on both and develops a new theory.¹⁵ This second theory takes a fresh approach to the problem of memory by questioning a crucial assumption. Why should memory always be about an earlier perceived thing? Is it not evident that we also (or even mostly) remember our own earlier acts? John Duns Scotus already pointed out this simple fact, thereby making clear that acts of remembering do not relate just to external things but also—and even primarily—to internal acts. Indeed, they somehow bring back our own acts. For Scotus, this is of crucial importance, for if we could not bring them back, we could never repent of them (if they were morally bad) or be proud of them (if they were morally good).¹⁶ That is, we could never have a moral attitude towards our own previous acts. But we need this attitude to be morally responsible persons; hence, we need the appropriate kind of memory that gives us access to our own previous acts.

As an attentive reader of Scotus, Ockham is fully aware of this argument.¹⁷ He realizes that one needs to widen the scope of memory by including one’s own acts. He even

¹³ See *Quodl.* II, q. 12 (OTh IX, 165–166). For a detailed analysis of this higher-order theory of reflection, see Brower-Toland (2014) and Schierbaum (2018).

¹⁴ Adams McCord (1987), p. 518, argues that “Ockham discarded the better as well as the simpler of the two theories,” meaning thereby the two versions of the theory, and that he should have maintained the first. However, in light of the problem of switching from one type of act to another, it seems dubious that the first version is in fact better than the second.

¹⁵ To be sure, he does not explicitly reject the two versions, but the simple fact that he no longer mentions the thing theory in his later works and that he presents a different theory in a later part of the *Reportatio* is a clear sign that he is not satisfied with it.

¹⁶ See *Ordinatio* IV, dist. 45, q. 3, n. 138 (Vat. XIV, 181).

¹⁷ Like Scotus, Ockham discusses the problem of memory by focusing on the afterlife; see *Reportatio* IV, q. 14 (OT VII, 290–297). In this situation, it is particularly important to remember one’s own acts, because on the Day of Judgment a person has to become aware of her good and bad acts in the life before death, and this would be impossible without remembering these acts.

follows Scotus in claiming that one's own acts are the first objects of acts of remembering. Rejecting his own earlier theory, he now holds "that the act of remembering is about a prior and preceding act insofar as it precedes."¹⁸ To be sure, the prior act need not always be an act with a moral value; it can also be a morally neutral act of seeing, imagining, or thinking. But no matter what the act is about, memory is first and foremost about the act itself, not about an external thing.

Does this mean that memory simply brings back an earlier act, thereby making it present again? This seems hardly convincing; after all, an earlier act is not fully reproduced and experienced again. For instance, when you remember your act of seeing a deer, you do not revive this act so that you are again having the experience of seeing a deer. Rather, you make your earlier act your object and mark it as an act that is somehow past—an act that is no longer experienced. This is why memory does not simply bring back an earlier act; rather, it brings it back as a *past* act and identifies it as such.

Ockham takes this fact into account, emphasizing that an act of remembering is not just about an earlier act. It has a more complex object:

I therefore say that an act of remembering has a double object, namely, a partial one and a total one. The partial object is the past act of the remembering person, and it can be an intuitive or an abstractive act in the intellect or in the sensory power, or it can also be an appetitive act in the will or in the sensory appetite. [...] The first total object of an act of remembering is something complex, namely, a proposition that is composed of the act of the remembering person as the partial object and a term that signifies or co-signifies the past tense, for instance 'I saw it there,' 'I heard it there,' 'I heard John lecturing on that day.'¹⁹

Here Ockham points out that, strictly speaking, an act of remembering is not just directed at an earlier act, but at a proposition that indicates two things: (i) the earlier act, and (ii) the temporal marking of the earlier act. This can again be illustrated with the deer example. Suppose you saw

the deer last summer. What you remember now is (i) your seeing of the deer, and (ii) the fact that this happened last summer. Hence you have a complex object, and this object is expressed in the proposition 'I saw the deer last summer.' What is now present to your mind is precisely this proposition.

This analysis has a number of advantages. First of all, it makes clear that memory does not simply bring back an earlier act; rather, it brings it back as an act that occurred in the past and is no longer being experienced. This is why there is a crucial difference between seeing an object, which has a special phenomenal quality (say, a certain intensity and vividness), and merely remembering this act. Of course, the act of remembering may have its own phenomenal quality, for one can be very focused in this activity and remember something with high intensity. But this quality needs to be distinguished from the phenomenal quality of the original act—a quality that is no longer present because the act is no longer being experienced. Second, the analysis has the advantage that it identifies the temporal dimension of the past act by mentioning a temporal expression like 'yesterday' (in Ockham's example) or 'last summer' (in my example). Presumably, Ockham would not claim that the temporal marking of the act has to be very precise. In many situations we are not able to say on what day we had a certain act of seeing or thinking, and so we cannot give an accurate temporal description, but we can at least say that the act occurred sometime in the past, whatever that time might be. This is why we can stamp it, as it were, as a past act. Finally, the analysis has the advantage that it pays attention to the subjective character of memory. Ockham clearly says that the proposition that is present to the mind includes the first person pronoun. Thus, when you remember your seeing of the deer you do not think simply 'There was an act of seeing last summer,' but rather '*I* had an act of seeing' or '*I* saw the deer last summer.' This means that you identify the act as your own act and spontaneously ascribe it to yourself.

Notably, the analysis Ockham offers fits perfectly with his general characterization of mental acts. According to his overall theory, thinking is always a mental activity that involves the use of mental terms and propositions.²⁰ For instance, when someone thinks that the sun is shining, she forms the mental proposition 'The sun is shining.' There can be no thinking without mental propositions that have both semantic and syntactic features. Now, this is also true for acts of remembering, which are a form of thinking: one cannot remember anything without forming a mental

¹⁸ *Reportatio* IV, q. 14 (OT VII, 292): "Et dico quod actus iste recordandi est respectu alicuius actus praecedentis et praeteriti in quantum praecedens est."

¹⁹ *Reportatio* IV, q. 14 (OTh VII, 295–296): "Unde dico quod actus recordandi habet duplex obiectum, scilicet partiale et totale. Obiectum partiale est actus recordantis praeteritus, et hoc potest esse actus intuitivus vel abstractivus in intellectu vel in potentia sensitiva, vel actus appetendi in voluntate vel in appetitu sensitivo. [...] Obiectum primum totale respectu actus recordandi est quoddam complexum, puta propositio quaedam composita ex actu recordantis tamquam ex obiecto partiali et alio termino significante vel consignificante tempus praeteritum, puta ista 'hoc vidi ibi,' 'hoc audivi ibi,' 'audivi Ioannem legere tali die.'"

²⁰ On this famous theory of mental language, see *Summa Logicae* I, cap. 1 (OPh I, 7–9) and *Quodl.* III, q. 12 (OTh IX, 246–250). For detailed analysis see Panaccio (2004), pp. 5–20, and Schierbaum (2014).

proposition. In fact, it is a mental proposition that comes to the mind when one remembers a past act. What is distinctive about this proposition is that it always includes a temporal index (e.g., ‘last summer’) and a subjective index (e.g., ‘I’). Moreover, it includes an expression describing the earlier act (e.g., ‘seeing a deer’). In any case, remembering is nothing but a special way of forming and using a mental proposition. Consequently, the analysis of an act of remembering requires an accurate description of the elements of the mental proposition at stake.

This new approach to the problem of memory enables Ockham to integrate his account of acts of remembering into a comprehensive theory of mental acts. But at the same time, his new theory gives rise to new problems. The most pressing one is that a person seems to be out of touch with the things she previously perceived. How, for instance, can you ever remember the deer as it was standing in front of you if all you remember is your own act of seeing? Ockham seems to neglect the fact that memory relates us not just to our own acts but also to things in the external world.

A closer look at his texts reveals, however, that he does not neglect this fundamental fact. He makes clear that we do remember external things, but only insofar as they are the content of remembered acts. This means that they are only the *indirect* objects of our acts of remembering. The *direct* objects are always the acts themselves. Ockham adduces a helpful example to illustrate this point.²¹ When I remember that a master gave a disputation, he says, I have an act that has as its total object the proposition ‘I heard the master give a disputation.’ Clearly, this proposition is about my own earlier act of hearing, and it is therefore this act that I remember first and foremost. But the remembered act was directed at the master, and thus I also remember the master. The important point is that the master is only the indirect object of my act of remembering, whereas the earlier act is the direct object. Ockham even claims that the cognition of the indirect object immediately follows from the cognition of the direct object.²² This is quite plausible, as his own example shows, for when I remember my hearing of the master and thereby cognize my earlier hearing, I come to cognize the master as well. In fact, I can then say to myself: “I can be sure that the master gave a disputation; otherwise I could not remember that I heard him give a disputation.” Of course, this only applies to a case of veridical memory. But granted that I accurately remember the situation as it was, I do indirectly cognize the external object.

It is at this point that one sees how Ockham constructs a theory of double intentionality. On his view, memory normally has two objects, a previous act *and* an external thing.²³ The crucial point is that the second object is always subordinated to the first. An external thing can only be remembered insofar as it was the object of a previous act. This is the main reason why it is necessary to distinguish between the direct object of an act of remembering and its indirect object. It is also the main reason why it would be inappropriate to say that we can directly remember things in the external world. We can remember them only by making a detour, namely, by bringing back the acts that were directed at these things. Nevertheless, we *can* remember external things. Memory is not a mental activity that relates us just to our own acts. The acts we remember are like arrows that point towards external things, and by following these arrows we can establish a cognitive relation with these things.

In defending this thesis, Ockham assumes that we can make earlier acts the direct objects of memory. But how is this possible? How can we have access to them? After all, they have ceased to exist. To solve this problem, Ockham refers again to habits that make a bridge between earlier acts and present acts.²⁴ But habits do not simply reactivate acts that existed in the past. They produce new acts that are *similar* to the earlier ones; and they are similar to them insofar as they establish a cognitive relation with the same external things. Once the new acts are in place, they are immediately marked as copies of acts that occurred in the past (this is the function of temporal markers like ‘yesterday’) and that were one’s own acts (this is the function of a subjective marker like ‘I’). We can illustrate this process with Ockham’s own example. When I heard the master give a disputation yesterday, this act of hearing, which was quite strong and impressive, gave rise to a habit in my mind. Thanks to this habit, I am now able to reproduce yesterday’s act, but I do not simply reproduce it the way it existed yesterday. Rather, I reproduce it as a copy of the earlier act by adding a temporal marker. This leads me to form a proposition about the earlier act, most probably the proposition ‘I heard the master yesterday.’

This example should make clear that the habit is indispensable, because it makes it possible to produce a new act that is similar to an earlier act, yet without simply repeating it. Does this appeal to a similarity relation enable Ockham to solve the problem that plagued his earlier theory? As

²¹ See *Reportatio* IV, q. 14 (OTH VII, 296).

²² *Reportatio* IV, q. 14 (OTH VII, 296–297): “Prima notitia est proprie recordativa; secunda est notitia evidens sequens ex notitia recordativa [...]”

²³ As far as I can tell, Ockham does not claim that memory *necessarily* has two objects. He only discusses cases in which there are two objects, but he probably wants to leave it open that there can be cases in which one remembers a previous act that had no external things as its object, e.g., an act of depression or an act of ecstatic joy. In these cases, memory has just one object.

²⁴ See *Reportatio* IV, q. 14 (OTH VII, 297–298 and 310–311).

has become clear (see Sect. 2), this theory was not able to explain the shift from one type of act (i.e., a perfect intuitive act) to another type (i.e., an abstractive act). It seemed unintelligible how a habit, which produces acts of the same type, should make such a shift possible. Can the new theory explain this shift? No, it cannot. But the important point is that it is not intended to do so. Ockham openly concedes that the new act is a completely new act that is not simply a reactivation of the earlier act. It rather refers back to the earlier act. And it does not give rise to the judgment that the earlier act *is* present. It rather gives rise to the judgment that the earlier act *was* present. So, as far as its causal function is concerned, the act of remembering must belong to a different type of act: it must be an abstractive act that clearly differs from an intuitive act. Ockham is fully aware of this difference.²⁵ But in claiming that a habit produces an act of the same type, he only wants to emphasize that the *content* of the act—not its causal function—must remain the same. This is exactly the point he wants to make when he speaks about a similarity between the act of remembering and the earlier act. Thus, when I have a habit that produces the act ‘I heard the master yesterday,’ I am in possession of an act that is similar to yesterday’s act as far as its content is concerned: it also deals with the hearing of the master. In that sense it is an act of the same type. Consequently, the requirement of type preservation is fulfilled. In any case, it is important to take into account that an act of the same type is not necessarily an act that has the same causal function: content preservation can be enough for type preservation.²⁶

4 Habits and Their Role in Memory

It has become clear that no memory is possible without the use of a habit. Both in his early “thing theory” and in his later “act theory” Ockham emphasizes that a habit builds, as it were, a bridge between a past act and a present act of remembering.²⁷ But how is that possible? To answer this question, it is important to take a closer look at the relationship between act and habit.

²⁵ See *Reportatio* IV, q. 14 (OTh VII, 312).

²⁶ Of course, the same remark could be made about the early thing theory. When switching from an intuitive act that gives rise to the judgment ‘x is present to me’ to the abstractive act that gives rise to the judgment ‘x was present to me,’ the content of the act is preserved. It is just the causal function that changes. But as far as I can see, Ockham does not introduce this distinction in his early theory.

²⁷ In emphasizing this point, he is parting ways with many predecessors who took intelligible species to be indispensable for memory. On his critique of species, see *Reportatio* II, q. 12–13 (OTh V, 268–281). For detailed analysis, see Perler (2002), pp. 322–342, and Adriaenssen (2017), pp. 99–110.

Every habit is based on an act, as has become clear, and an act is always directed at an object. This intentionality is possible, Ockham points out, because an act is not only caused by an object; it is also similar to it.²⁸ The similarity at stake here is not pictorial similarity (an act is not a physical image and can therefore not be an inner picture), but rather structural similarity. Claude Panaccio has suggested a nice analogy to make clear what this type of similarity amounts to.²⁹ When someone is grasping a ball, her hands take a certain position that perfectly fits the ball: they somehow take the shape of the ball. Similarly, when an external object affects the soul and causes an act in it, the act takes a certain shape that fits the object. There is then a structural similarity between cause and act: both have the same shape and match each other.

This is of crucial importance for the problem of memory. If the act itself can take a certain shape and thereby become similar to the object that causes it, and if the act can be reproduced at a later moment, then the act itself can refer to the object and bring it back—nothing else is required. To be sure, the act cannot literally take a shape because it is, metaphysically speaking, an immaterial entity in the rational soul. But it can have a number of elements that are arranged in a certain way, thereby displaying a certain structure; and this structure can match the structure to be found in the external object. In a nutshell, there can be structural isomorphism. Let me illustrate this point with Ockham’s own example. When I heard the master give a lecture yesterday, my soul was affected by this event and produced an act that had a special inner structure. This structure perfectly corresponded to the event I witnessed, because it had two elements (the master and his lecturing) that could also be found in the external event. If I now reproduce this act, its structure will again have these two elements. Consequently, there will again be a correspondence between my act and the earlier event; in metaphorical terms, my act and the earlier event will have the same shape.

I hope this example makes clear why Ockham thinks that there is a close connection between act and external object. Since the act is structurally similar to the object, bringing back the act entails that one also brings back the object, for once the act is present again, it immediately refers to the object in virtue of its special structure. Thus, as soon as the act of seeing the master lecturing is reproduced, the master himself will be brought back, because the act has such a structure that it immediately refers to the master and makes him present. The more fine-grained its structure is, the better

²⁸ See *Reportatio* II, q. 12–13 (OTh V, 287); *Quodl.* IV, q. 35 (OTh IX, 474). On the importance of the similarity relation, see Panaccio (2004), pp. 119–122.

²⁹ See Panaccio (2004), p. 124.

it refers just to this master: it is making just him present and no other person. To use Panaccio's analogy again, one could say that bringing back an act is like putting one's hands in the same position in which they were when they grasped the ball; they will then have a certain shape that perfectly fits the ball. Similarly, the act will have a certain shape (or structure) that perfectly fits the earlier perceived object.

Given the close connection between act and object, it is clear that nothing in addition to the act is required for successful memory. But how can the act come back? As has already been pointed out (see Sect. 3), Ockham's answer is clear: this is possible because of a habit. The habit, an acquired disposition, makes it possible to reproduce the act. But what exactly makes it possible for the habit to give rise to an act that has the very same structure as the original act so that the new act refers to the very same external thing? It seems not enough simply to invoke a habit; one also has to explain its inner constitution. Otherwise the habit looks like a black box out of which a new act with the same structure miraculously arises.

Fortunately, Ockham does not take the habit to be a black box. He develops a detailed metaphysical theory that explains both its origin and its inner constitution.³⁰ At the core of this theory is the thesis that a habit is an entity that belongs to the category of quality, just like an act of the soul.³¹ It comes into existence through a causal process, for whenever an act repeatedly exists, it naturally causes a habit. This means, metaphysically speaking, that one type of quality (the act) causes another type of quality (the habit). Once the habit is in place, it can give rise to a new act. There will then be a natural chain of qualities: an initial act (=quality₁) causes a habit (=quality₂), which in turn causes a new act (=quality₃) or even a series of new acts. Of course, the habit does not constantly cause new acts; it needs to be activated to become causally active.³² In many situations, this activation is due to an external stimulus. For instance, once a person has acquired the habit of thinking about something potable, she spontaneously activates this habit when she sees a glass of water. But in other situations it takes an effort or even a deliberate decision to activate a habit. Thus, a person does not activate her habit of thinking about mathematical problems unless she decides to sit down and dedicate her time to doing mathematics. As these two examples show, the activation depends on the type of habit that is at stake, and quite often also on external conditions and internal

processes. But no matter how a habit is activated, its use always leads to the existence of a new quality.

In presenting this explanation of the relation between acts and habits, Ockham commits himself to a purely causal theory of habits. He even commits himself to the claim that a habit is an active causal principle.³³ But he does not simply assign causal power to the habit; he also claims that a habit has an *intentional* structure, which it receives from the act that caused it, and which it then transmits to the new act that it in turn causes.³⁴ Why can the habit have this structure? Just like the act that causes it, the habit stands in a similarity relation to an external object, and it somehow inherits this relation from the act that caused it. Thus, when I have acquired the habit of thinking about the master, this habit stands as much in a similarity relation to the master as the act that caused it. Just like the original act, the habit has elements or features that correspond to the features to be found in the master. And when the habit then causes a new act, this act will in turn inherit the similarity relation from the habit. This is why the new act can be directed at the master although it is not directly caused by it.

Given the intentional structure of the habit, it becomes clear why nothing more than the habit is required for memory. The habit is some kind of mental trace that is present in the soul.³⁵ It has, as it were, been imprinted in the soul with a distinctive structure. In virtue of this structure, it is *by itself* related to an object outside the soul. Since it can transmit this structure to a new act, this act will also *by itself* be related to that object. No special device will be required to establish this relation: all that is required is a causal chain that makes the transmission of the structure possible. As long as this chain is present, a person can always remember a previously perceived object, since she is able to produce an act that has the very same intentional structure as the earlier act. Structure preservation from act to habit to act makes this fundamental fact possible.

³⁰ He develops this theory mostly when commenting on the *Categorías* and when analyzing special habits (e.g., virtues) in *De connexione virtutum*. For a comprehensive analysis, see Roques (2018).

³¹ See *In libros Praedicamentorum*, chs. 14 and 15 (OPh II, 275 and 295).

³² It is important therefore to distinguish between the mere existence of a habit and the use of a habit; see *Quodl.* III, q. 22 (OTh IX, 289).

³³ Ockham explicitly calls the habit an efficient cause; see *Quaestiones variae*, q. 5 (OTh VIII, 174), and Roques (2018), pp. 272–278, for detailed analysis.

³⁴ This is the main reason why there are as many types of habit as there are types of intentional act. Each one has its own intentional structure; see *Quaestiones variae*, q. 7, art. 1 (OTh VIII, 323–325).

³⁵ As far as I can tell, Ockham does not explicitly call the habit a “trace” (*vestigium*), but his characterization of the trace perfectly fits with his definition of habit: (1) it is caused by something else and (2) it is similar to the thing that caused it. See *Ordinatio* I, dist. 3, q. 9 (OTh II, 543–546). Moreover, Ockham remarks that a trace leads to a “remembering cognition” (*notitia recordativa*) of the object of which it is a trace (*ibid.*, 547), which is exactly what a cognitive habit does.

5 Conclusion

In what sense is Ockham's theory of memory a theory of double intentionality? I hope the analysis in the preceding sections has made clear how this question is to be answered. When replacing his early thing theory with his later act theory, Ockham emphasizes that what we remember first and foremost are our own earlier acts. But the crucial point is that we do not remember just our own acts. In remembering them we also remember the objects of those acts, for the new acts that we produce have the very same intentional structure as the original acts. The new acts are copies of the old acts, and thus refer not just to the old acts, but also to the objects of those acts. It would therefore be pointless to ask whether it is the previous acts that we remember or the previously perceived objects, as the example introduced at the beginning of this paper suggested. What makes memory so special is that we remember both. Thus, when asked whether you remember the beautiful deer or your act of seeing the deer, you should not choose one of these two options, for the question is wrongly posed. You should rather say that you remember the deer by remembering the act of seeing with its special intentional structure. You bring back, as it were, the deer through the act.

This way of describing the process makes clear that Ockham integrates his theory of memory into a comprehensive theory of intentionality. Like all other mental activities, remembering is essentially intentional, but it differs from many other activities in being directed at two things at the same time.³⁶ Memory is thus quite a complex intentional activity, and a person remembering an earlier event can shift her attention from one thing to the other. She can first focus on her earlier act and then on the object of that act, or vice versa. In any case, she is not determined to fixing her attention on one and only one thing, but can freely decide what she wants to bring into her focus. Given this possibility, it is quite understandable why we often speak only about external objects when we spell out the things we remember: in that case, we are focusing on the objects of our earlier acts. But this does not mean that we then establish a direct cognitive relation with external objects. We only fade out, as it were, the direct object, and let the indirect object come to the fore, thus giving priority to one of the two intentional objects. Of course, in many situations we are so much focused on the indirect object that we are not aware of the direct object. Thus, when you tell your friends about the impressive deer

you saw on your hiking tour, you are so much focused on this beautiful animal that you pay no attention to your act of seeing. But this does not mean that you then have direct access to the deer; after all, the animal does not stand in front of you. Imperceptible as your earlier act may be, it is involved in your memory, because you remember the deer insofar as it was present in this act: you bring back the act as well as the deer, even when you do not notice the act.

This double intentionality is made possible by a habit that preserves the intentional structure of the original act. It functions like a mediator, which transmits the intentional structure from the original act to the later act of remembering. The later act is therefore not directed just at the earlier act, but also at the object of that earlier act. What makes Ockham's account of memory particularly rich and illuminating is that he presents a causal story for explaining the emergence of this act with double intentionality. According to this story, the original act causes a habit, which in turn causes a new act. Since the intentional structure is transmitted through this causal chain, the new act leads back to the original act.

In offering this analysis of memory, Ockham replaces a traditional account, which invoked special cognitive devices (i.e., intelligible species), with a new account that is ontologically more parsimonious, since it introduces just acts and habits. Furthermore, he also paves the way for radically naturalistic or even mechanistic theories that explain memory in terms of a causal mechanism leading from the "imprinting" of a trace to the emergence of a new act that duplicates the original act.³⁷ Of course, Ockham's own theory is neither fully naturalistic nor fully mechanistic. He thinks that memory is to be explained with reference to an *immaterial* soul that produces *immaterial* acts and habits. Memory therefore cannot be accounted for in terms of a causal mechanism in the material world. But in referring to a causal chain of acts and habits, Ockham opens the door to a theory that is committed to there being nothing but relations of efficient causation among entities in the soul, whatever their nature (immaterial or material) may be. In doing so, he contributes to the rise of purely causal theories of memories that became influential far beyond the fourteenth century.

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³⁶ In particular, memory differs from thoughts that are directed at things that are immediately present. Unlike other medieval authors (e.g. Peter John Olivi), Ockham denies that these thoughts are also directed at themselves and that they make themselves present. As has already been mentioned (see footnote 13), he refers to second-order thoughts to explain how one can be directed at one's own thoughts.

³⁷ For a survey of these theories, running from Descartes to modern connectionism, see Sutton (1998).

Compliance with Ethical Standards

Conflict of interest Author declares that he has no conflict of interest.

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