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# THE TWO FACES OF MENTAL IMAGERY\*

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Mental imagery has often been taken to be equivalent to “sensory imagination”, the perception-like type of imagination at play when, for example, one visually imagines a flower when none is there, or auditorily imagines a music passage while wearing earplugs. I contend that the equation of mental imagery with sensory imagination stems from a confusion between two senses of mental imagery. In the first sense, mental imagery is used to refer to a psychological attitude, which is perception-like in nature. In the second sense, mental imagery refers to a mental content, which can be grasped via different attitudes. I will show that failure to acknowledge the distinction between these senses of mental imagery has muddled philosophical discussion. This distinction brings much needed clarity to debates where sensory imagination and mental imagery are invoked, shedding light on issues such as the nature of imagistic mental states, and the representational powers and limits of mental imagery. I will conclude by sketching a general attitudinal account of imagination that does justice to both senses of mental imagery, outlining a promising framework for understanding imagination.

## 1. INTRODUCTION: MENTAL IMAGERY AND SENSORY IMAGINATION

In the literature about imagination many discussions concern the range of the imaginative realm. There is disagreement, for instance, about whether some phenomenon, such as conceiving or supposing, may be legitimately seen as belonging to such a realm (e.g., Arcangeli 2014; Balcerak Jackson 2016; Kind 2016b). By contrast, a rapid overview of the literature shows that almost everyone agrees in thinking that mental imagery is imaginative (e.g., Flew 1953; Carruthers 2002; Currie & Ravenscroft 2002; Goldman 2006; Ichikawa 2009; Gendler 2018).

Annis Flew rightly observed: “In any discussion of imagination, attention tends to centre on mental imagery” (Flew 1953: 246). According to her, however, this is only one sense of the word

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“imagine”, the “imaging” sense, as she dubs it. In this sense, “imagine” refers to the capacity to have mental images in a given sense modality (visual, auditory, etc.). On this view, mental imagery is identical to “sensory imagination”, that is, the type of imagination at play when, for instance, one visually imagines a lilac when none is there, or auditorily imagines a passage of Albinoni’s Adagio while wearing earplugs. As Mike Martin puts it:

By *sensory imagining* I have in mind those distinctive episodes of *imagining* or *imaging* which correspond to our use of the distinct senses: so we talk of *visualising* corresponding to seeing, or *listening in one’s head* parallel to audition, and so on. (Martin 2002: 403—see also Peacocke 1985: 22)

Another prominent philosopher in the field, Tamar Gendler (2018), has given a similar description of sensory imagination. She writes:

To have a (merely) mental image is to have a perception-like experience triggered by something other than the appropriate external stimulus; so, for example, one might have “a picture in the mind’s eye or ... a tune running through one’s head” (Strawson 1970, 31) in the absence of any corresponding visual or auditory object or event. (...) A more general question—which has received less attention in philosophical discussions of the imagination—concerns the relation between mental imagery (or sensory imagination) and imagination more generally.

I contend that what has received even less attention is the relationship between mental imagery and sensory imagination. Very often it is taken for granted that mental imagery and sensory imagination are equivalent. I argue that there is more to mental imagery than sensory imagination. Sensory imagination captures only one of the senses of “mental imagery” operative in philosophical and empirical work. There is another important sense of the term that refers, as I will show, to a non-imaginative phenomenon. The aim of this paper is to bring out these two senses largely ignored by philosophical discussions on the nature of imagination and related issues (e.g., hallucinations, amodal perception).<sup>1</sup> Once these senses are disentangled, new light can be thrown on these debates. Moreover, one of my goals is to plea for a terminological regimentation of “mental imagery” in philosophical discourse: the term should be used only in its second sense.

First (§2), I shall dwell on the first use of mental imagery as a proxy for sensory imagination. I will call on an influential approach which sees imagination as a re-creative capacity, that is, a capacity to simulate or somehow imitate other mental states. On this view mental imagery will emerge as a psychological attitude. Thus, I dub the first sense of mental imagery the *attitude* sense.

In §3 I shall turn to an alternative way of defining mental imagery, which reveals a confusion

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<sup>1</sup> I first identified the need for such a distinction in my analysis of White’s view on mental imagery (Arcangeli 2017).

between the attitude sense and what I call the *content* sense of mental imagery. While on the attitude sense mental imagery coincides with sensory imagination (i.e., an imaginative attitude), on the content sense mental imagery is not specifically imaginative, insofar it refers to a type of mental content that can be grasped via attitudes other than imagination. I argue that the failure to distinguish between these senses has considerably muddled current discussion on the topic. I illustrate such a confusion by examining how it impacts on debates on imagistic mental states (i.e., mental states with imagistic content) and their relation to sensory imagination.

§4 focuses on the debate about the scope and limits of mental imagery, another debate in which it is questionable whether philosophers are dealing with the same phenomenon. A common claim is that the same mental image can serve different imaginative purposes. This hypothesis has often been taken for granted, yet it deserves to be analysed in more detail. I shall show that philosophers concerned with such a hypothesis do not always seem to use the term “mental imagery” in the same sense, thus talking past each other.

I conclude, in §5, by sketching an account of imagination that does justice to both senses of “mental imagery”: the attitudinal theory of imagination.

## 2. MENTAL IMAGERY AS SENSORY IMAGINATION

Close your eyes (just for concentration) and bring to your mind a lilac (or another flower, if you don't know how a lilac looks like), bring to your mind a passage of Albinoni's Adagio (or a tune you particularly like), bring to your mind the flavour of white chocolate (or of dark chocolate, if you prefer). All these mental exercises call for mental imagery in different sensory modalities.

Mental imagery is almost unanimously defined as having a *perception-like* or *quasi-perceptual* nature (see, e.g., Richardson 1969; Ichikawa 2008; Gendler 2018; Stokes 2018). The rather intuitive idea is that mental imagery bears important similarities with (sensory) perception, but it is nonetheless a different kind of mental phenomenon; hence the need for the *-like* suffix or the *quasi-* prefix. However, more need be said about how mental imagery relates to perception if we are to go beyond this rather vague claim.

The philosophical literature on imagination provides one way of cashing out the relationship between mental imagery and perception in terms of *re-creation*. A popular view of the nature of imagination has it that imagination is the capacity to “re-create”, or otherwise mimic, non-imaginative kinds of mental state. “X-like imagining”, or “re-creating X in imagination”—where X is a type of non-imaginative state (e.g., vision), means that the relevant imaginings are similar, from a phenomenological and/or functional point of view, to the non-imaginative “counterpart” they re-

create.<sup>2</sup> Within this framework mental imagery is the re-creation of perception or it has perception as its counterpart. Having a mental image of a flower would be vision-like or olfaction-like imagining a flower, and having a mental image of a tune would be audition-like imagining a tune. Mental imagery turns out to be a variety of imagination, namely perceptual or sensory imagination (see, e.g., Currie & Ravenscroft 2002: 24—recall also quotes given in §1).

Sensory imagination is the capacity to produce imaginings that are phenomenologically and/or functionally like the counterparts re-created, that is, perceptual experiences. When imagination re-creates perception, there is a similarity at the psychological level between the subject who sensorily imagines and a subject who really perceives. That there is such similarity is rather intuitive. If, for example, Emma imagines seeing a lilac bush, her mental state feels similar to that caused by the visual perception of a lilac bush. Sensory imaginings seem also to play roles similar to perceptual experiences in our mental economy (e.g., Currie & Ravenscroft 2002; Goldman 2006). Emma may figure out whether to plant a lilac bush in her garden by visually imagining whether its colours would match that of the flowers already there and how the ensemble would look from the living room windows, as if she were using visual perception.

It has been objected that the re-creativist framework makes all sensory imaginings imaginings about perceptual experiences. Imagining seeing a lilac bush would stand for “imagining *seeing a lilac bush*”, where the sensory imagining’s content includes an explicit reference to the visual experience. Likewise, imagining hearing a passage of Albinoni’s Adagio would mean “imagining *hearing a passage of Albinoni’s Adagio*”, where some auditory experience is part of the sensory imagining’s content.

Understanding sensory imagination as the re-creation of perception, however, is better interpreted in a different way, which does not fall prey to this worry. Imagining seeing a lilac bush should be read as “imagining-seeing *a lilac bush*”, where “seeing” modifies and specifies our way of imagining, and the visual experience is not necessarily part of the sensory imagining’s content (see Currie & Ravenscroft 2002: 27). When we sensorily imagine a given content, we imagine such a content in *a way similar* to perception. This clarification points to an important, and mostly neglected aspect of the relationship between sensory imagination and perception: what ties the former to the latter is primarily to be found in their modes of representing (i.e., the psychological attitudes they are), rather

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<sup>2</sup> Many philosophers have stressed that imaginings share a “structural affinity” (Weinberg & Meskin 2006: 225) with non-imaginative mental states (e.g., Peacocke 1985; Kind 2001; Currie & Ravenscroft 2002; Martin 2002; Noordhof 2002; McGinn 2004; Goldman 2006; Stock 2017). This idea can in fact be traced back to Edmund Husserl’s view on imagination (see Husserl 1901; Meinong 1902 and Mulligan 1999). For this reason the re-creativist approach to imagination should not be confused with simulationism: simulationists are re-creativists, but re-creativism can be held without endorsing simulationism (see Dokic & Arcangeli 2015 a and b; Arcangeli 2018). I use the term “re-creation” (instead of “recreation” as introduced by Currie and Ravenscroft, who are simulationists) neutrally with respect to the issue of whether re-creation should be explained in terms of the simulation of sub-personal processes.

than in what they represent (i.e., the mental contents they have).<sup>3</sup>

The latter point can be better grasped by reference to a crucial distinction in philosophy of mind: that between psychological attitudes and the mental contents to which they can be related.<sup>4</sup> Psychological attitudes comprise belief, perception, desire, emotions, memory, and so on. Contents can be typed, among others, in terms of their being propositional/non-propositional, or conceptual/non-conceptual. Different attitudes may involve the same content and thereby be about the same object or state of affairs (e.g., Emma *believes* that the quiche is cooked, Maria *sees* that the quiche is cooked). Roughly speaking, both the attitude and the content are aspects of a mental state, but they contribute to it in different ways: the attitude is *how* a mental state represents, the content is *what* a mental state represents.

The notion of psychological attitude refers, in a very minimal sense, to primitive and peculiar mental categories. Perception is an attitude at least partly because it cannot be reduced to other mental categories, such as belief or desire (*primitiveness*), and it has either phenomenological or functional specific features, or both (*peculiarity*). Perceiving that the quiche is cooked feels a certain way. There is a “what it is like” to perceive a delicious smell and a certain distribution of colours. Undergoing such an experience is phenomenologically different from believing or desiring that the quiche is cooked.

Perception is also characterised by a functional profile. Under normal conditions, perception is (or is treated as) an independent source of knowledge about what is presented to our senses. If Emma perceives that the quiche in the oven is cooked, she is entitled to acquire knowledge that the quiche is cooked. If Emma desires that quiche in the oven be cooked, she is not entitled to acquire knowledge that the quiche is cooked. If Emma believes that the quiche in the oven is cooked, there must be a quiche in the oven for her belief to be true. And while her belief can justify other beliefs, it can never yield knowledge by itself, that is, considered as a mental state independently of its epistemic connections to antecedent mental states (e.g., she previously saw a quiche there or her mother told her that there is a cooked quiche in the oven).

As suggested above, these phenomenological and functional attitudinal features of perception

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<sup>3</sup> This is not to deny that there can also be similarities at the content level. A widespread view (see Currie & Ravenscroft 2002, among many others) argues that sensory imagination and perception have a similar type of content, which is distinct from the type of content presented by belief and other varieties of imagination (e.g., belief-like imagination). My target here is a content-based approach which explains the similarities between imaginings and their counterparts by claiming that the latter are part of the content of the former. This view has been defended by Martin (2002), Fabian Dorsch (2012) and, according to some authors, Christopher Peacocke (1985, in Dokic & Arcangeli 2015b we offer an attitudinal interpretation of Peacocke’s view); and attacked by several authors (see, Noordhof 2002; Currie & Ravenscroft 2002 and Gregory 2010).

<sup>4</sup> Sometimes “attitude” is taken to refer to mental states whose content is propositional, while “mode” is used to capture mental states whose content is non-propositional. In contrast, I am using “attitude” and “mode” as synonyms and I will take no stand on the issue of the propositional content of imagination. Therefore, my talk of imaginative attitudes importantly differs from Neil Van Leeuwen’s attitude imaginings, which he construes in propositional terms (see Van Leeuwen 2013 and Kind 2016b).

are mimicked by sensory imagination, which in this sense re-creates perception. Nonetheless, there are phenomenological and functional dissimilarities that set sensory imagination apart from perception. Sensory imaginings feel different from perceptual experiences. Compare, for instance, the way it feels either to sensorily imagine or to perceive a lilac. Certainly the two experiences bear some similarities, still there is typically a phenomenological difference between a state of sensory imagination and a state of perception with the same content—as illustrated by the fact that we are easily able to tell (in normal circumstances) whether we are imagining rather than perceiving, and *vice versa*.

Sensory imagination functionally differs from perception, for instance, by not being constitutively connected to truth. The mere sensory imagining that the quiche is cooked cannot be a source of knowledge about the quiche. Moreover, if there is no quiche in the oven, Emma can sensorily imagine that there is one, but she can hardly perceive that there is a quiche—if she is not hallucinating or mistaking another dish for a quiche. This also points to a difference in how and to what extent perception and sensory imagination are connected to the will. Emma cannot wilfully see a quiche if there is none, but she can wilfully imagine one.<sup>5</sup>

The fact that sensory imaginings show a proper phenomenology and have their own functional characteristics suggests that sensory imagination is a primitive and peculiar kind of mental state, and therefore an independent psychological attitude. A long-standing philosophical tradition considers imagination *tout court* an attitude, since it exhibits primitiveness, and peculiarity (see, e.g., contributions in Kind 2016a, and for a dissenting voice Langland-Hassan 2012). Many authors stress that imagination comes in different varieties. Thus, the re-creativist approach suggests that these can be thought of as different imaginative attitudes, different *genera* within the *family* of imagination. Sensory imagination is probably the most important genus belonging to such a family, but other genera may be identified, such as “cognitive imagination” or “belief-like imagination” (e.g., Currie & Ravenscroft 2002; McGinn 2004). Moreover, a genus can be sorted into species. For instance, vision-like, touch-like, audition-like, olfaction-like and taste-like imaginations are different imaginative attitudes, different *species* within the *genus* of sensory imagination.<sup>6</sup> The hypothesis can be extended further. We may wish to consider as imaginative attitudes belonging to sensory imagination even imaginings that re-create other senses than the five conventional ones, such as proprioception-like (e.g., Williams 1976) or motor-like (e.g., Goldman 2006) imagination.<sup>7</sup>

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<sup>5</sup> Arguably truth-independence and will-dependence are core features characterising all imaginings—see, e.g., Arcangeli 2018, where I explore and suggest other features proper to imaginings (e.g., a specific type of phenomenology).

<sup>6</sup> Some philosophers individuate perceptual modalities in terms of their contents (e.g., vision and audition would necessarily have different contents). They recognise, however, that perceptual modalities have different phenomenologies and that one modality cannot be reduced to another. These features of peculiarity and primitiveness suffice in the present context to talk about different attitudes (see also Crane 1995).

<sup>7</sup> Elsewhere, in collaborative work with Jérôme Dokic (Dokic & Arcangeli 2015a), I have suggested to restrict

A first sense of mental imagery has emerged. If mental imagery is nothing but sensory imagination, which is to be understood as a mental category showing primitiveness and peculiarity (i.e., a psychological attitude), then mental imagery is an attitude. Moreover, I have shown that thus understood, sensory imagination is an imaginative attitude, that is, an attitude characterised by the fact that it re-creates non-imaginative mental states, precisely perceptual experiences. Sensory imagination displays distinctive phenomenological and functional features, but it also mimics attitudinal aspects of perception.

However, the use of the phrase “mental imagery” by philosophers does not seem to be exhausted by the notion of a perception-like imaginative attitude. Another important sense of mental imagery needs to be brought to the fore.

### 3. MENTAL IMAGERY BEYOND SENSORY IMAGINATION

Recall previous examples of mental imagery: a mental image of a lilac, a mental image of a passage of Albinoni’s *Adagio*, a mental image of the flavour of white chocolate. On the attitudinal sense of mental imagery presented above, in bringing to our minds these mental images we are taking a specific stance towards the given mental contents: we are in sensory imaginative mental states. In other words, we are apprehending the relevant mental contents via a specific psychological attitude, that is, sensory imagination. Thus, we are imagining-seeing (or imagining-smelling) *a lilac*, imagining-hearing (or even imaging-playing) *a passage of Albinoni’s Adagio*, imagining-tasting (or imagining-smelling) *the flavour of white chocolate*. To entertain mental imagery would mean to exercise one’s sensory imagination. Equating mental imagery with sensory imagination offers an attitudinal reading of how mental imagery relates to perception: the acknowledged similarity between the two mental phenomena is due to their similar (but not identical) modes of apprehending mental contents.

There is, however, another way of cashing out the relationship between mental imagery and perception, one in which the notion of mental imagery is detached from that of sensory imagination. To this end the distinction between attitude and content can be of help once again, but the notion of content need be spelled out in more detail.

Beforehand I have roughly defined mental contents as what mental states represent, in contrast to psychological attitudes, which are modes of apprehending mental contents. I have also mentioned that philosophers distinguish between types of mental content, for instance, propositional and non-propositional contents. Contents can be *conveyed* in different forms. Compare the English phrase “a

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sensory imagination to the re-creation of perception and considered this type of imagination a genus within the family “experiential imagination”, to which proprioception-like, motor-like and even cognitive imagination would belong. The question is open whether experiential imagination so understood is imagination *tout court*.



lilac” with a picture of a lilac; though they convey the same content (i.e., *a lilac*), they do it differently. They differ with respect to the representational *vehicle* (or *format*): while in the former case the content is conveyed in a linguistic form, in the latter case the same content is conveyed in an iconic form.<sup>8</sup> The same can be said with respect to *mental* contents: different representational vehicles (or formats) convey what our mental states represent. One way of typing mental contents is precisely on the basis of their vehicles (or formats). For instance, propositional contents, contrary to non-propositional contents, are mental contents carried by propositions or organised in propositional terms.

An interesting question is whether there is a deeper link between mental contents and their vehicles, that is, if a certain type of information can be conveyed only by a specific vehicle. A popular view has it that this is the case for sensory information: in virtue of its richness and quality it calls for an iconic vehicle. A visual presentation of a lilac, for instance, contains a huge amount of information about the lilac, about its colour, shape, orientation, and so on. Typically, this information is also very determinate—e.g., a whole host of shades of red and purple are represented in a visual presentation of a burgundy lilac. Although this view is tempting, I do not need to commit myself to it here. In what follows I will just take for granted that sensory content exists as a type, although what makes it the type it is might be due either to the information it expresses or how it is conveyed, or both. In any case, note that this type of content is defined without making use of the notion of attitude.<sup>9</sup>

With these clarifications in mind, consider the following definitions of mental imagery:

Imagery is a matter of the having of sensory presentations (Gaut 2003: 272)

We use the term ‘mental imagery’ to refer to representations [...] of sensory information without a direct external stimulus (Pearson *et al.* 2015: 590)

These definitions place mental imagery on the content, rather than on the attitudinal level of our mental life. Here mental imagery is linked with what is represented, with a particular type of mental content, namely sensory content. They suggest another interpretation of mental imagery: it would not be a specific mode of apprehending mental contents (i.e., an attitude), but a specific type of mental

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<sup>8</sup> How contents can be *conveyed* should be distinguished from how contents can be *realised*. The English phrase “a lilac” can be uttered, produced via a recording device, written on a piece of paper, displayed on a computer screen. In all these cases not only the content is the same, but also the vehicle (or format); what changes is the *medium* in which tokens of the same type of vehicle (conveying the same content) are realised. The same holds for other types of vehicle, like pictures. With respect to mental contents the medium is likely to be or include brain states or processes (see Crane 2003).

<sup>9</sup> Typically, however, discussions about sensory content are framed within discussions about perception as a type of mental state, since perception is our primary source of sensory information. Moreover, the literature quite often contrasts the sensory content proper to perception with the type of content proper to other attitudes, such as belief (see fn 3). Different labels have been offered to capture such a contrast—e.g., non-propositional/propositional, non-conceptual/conceptual, pictorial/discursive. It is questionable whether all these dimensions coincide and the debate on the nature of the contents of perception and belief is still ongoing (see, e.g., Hawley & Macpherson 2011; Kriegel 2018).

content (perhaps dependent on a type of vehicle). Having a mental image of a flower would be bringing to our mind a sensory (i.e., visual, olfactory) presentation of a flower without the stimulation of our vision or olfaction by an external flower. Likewise, having a mental image of a tune would be bringing to our mind an auditory presentation of a tune without the stimulation of our audition by an external tune.<sup>10</sup>

The content sense of mental imagery puts the relationship between mental imagery and perception under new light. Mental imagery would not be similar to perception in its mode of grasping a content, but rather in the type of explicit information conveyed. On this picture sensory content is the key to their similarity. We acquire sensory information through perceptual experiences, which have been considered by many philosophers to have a specific type of content, that is, sensory content (see fn 9). Note, however, that via perception but not mental imagery we are in direct contact with external objects which stimulate our senses. This has led to the suggestion that there is a loss of information when sensory content does not depend on the stimulation of the corresponding sense. Mental imagery would be a type of sensory content (i.e., a sufficiently rich and fine-grained content), although less rich and less fine-grained than the sensory content we can grasp via perception. For instance, a visual mental image of a lilac represents the flower's colour, shape, orientation, and so on, but it arguably cannot capture the flower's determinate shade of colour (e.g., RGB 220, 20, 60). Mental imagery seems to be more schematic than the sensory content presented in visual perception.<sup>11</sup>

A question arises: How does this content sense of mental imagery relate to sensory imagination, that is, the attitude sense of mental imagery? An intuitive and plausible view is that sensory imagination has mental imagery as its type of content. To this extent the similarity between sensory imagination and perception is strengthened: these mental phenomena are similar attitudes with similar types of content (see fn 3). There is, however, another more pressing question: Could we have mental imagery without sensory imagination? In other words, are there attitudes other than sensory imagination that involve mental imagery in the content sense?

The answer is positive. When Emma, sitting in her couch, recalls the quiche in the oven, or desires a slice of the quiche in the oven, or believes that the quiche is cooked and consequently goes to the kitchen, she is in different kinds of mental state, in different attitudes (i.e., memory, desire, belief), but their contents might all involve, and even be based on, mental imagery of the quiche, that is

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<sup>10</sup> This sense of mental imagery is in line with psychological treatments of mental imagery. The well-known mental imagery debate among cognitive scientists, for instance, can be seen as a debate about the vehicle (or format) of mental imagery (see, e.g., Kind 2001 and Langland-Hassan 2015 for this interpretation). To give another example, two respected psychologists in the field, Lisa Libby and Richard Eibach (2011), consider mental imagery “a representational tool” which has a role in, e.g., judgement and emotion.

<sup>11</sup> This point has been frequently made within discussions on (sensory) imagination (see, e.g., Sartre 1936; Weatherson 2004; McGinn 2004; Byrne 2010).

sensory content about the quiche.<sup>12</sup>

This point has been discussed by Peter Langland-Hassan in a recent paper on mental imagery. Langland-Hassan points out that a judgement or a desire might have, for example, the content “The Arc de Triomphe is: A BIG SILVER ARCH...”, where capital letters describe an imagistic component (i.e., a mental image), whereas small letters capture a non-imagistic, viz. discursive, component. Langland-Hassan, however, makes a further step: he considers these imagistic mental states “imaginative attitudes” belonging to sensory imagination. Take what he calls “judgement imaginings” (JIGs). He claims that JIGs are not to be confused with belief-like or cognitive imaginings. JIGs are “a form of sensory imagination”, as they are “judgements that involve mental images as proper parts” (Langland-Hassan 2015: 675). In a similar vein, Neil Van Leeuwen holds that mental states involving mental imagery, such as some beliefs and memories, are cases of “imagistic imagining”, which he defines as “re-creations of perceptual experiences” (Van Leeuwen 2013: 222). These quotes exemplify a tendency in the philosophical debate to take imagistic mental states as imaginative.

I believe that the choice to label imagistic mental states “imaginative attitudes” or “(sensory) imaginings” is misleading, insofar it fails to appreciate the distinction between the content sense and the attitude sense of mental imagery. Mental states involving mental imagery as content may not necessarily involve mental imagery as attitude (i.e., sensory imagination).<sup>13</sup> Importantly, mental imagery in its content sense is not specific to imagination as an attitude, given that it can be involved in attitudes other than imagination. The problem is that here is where philosophical discussions get muddled. As I will make clear, failure to recognise the two senses of mental imagery leads to conceptual confusion, notably about the boundaries of imagination.

The claims made by Langland-Hassan suggest that whenever we have mental imagery (in the content sense) we exercise our imagination, more precisely our sensory imagination. Indeed, Langland-Hassan claims to be using the term “sensory imagination” in a fairly standard way, which he considers

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<sup>12</sup> I am not claiming that Emma’s belief that the quiche is cooked must involve mental imagery. Her belief might not involve any sensory information about the quiche. It might be argued, however, that at least some beliefs do essentially have sensory contents. This might be the case for some demonstrative beliefs. Emma, while looking at the quiche, might form the belief that “*That* is a perfect shade of brown”, or “The quiche is cooked *thus*”. The idea is that Emma’s belief could not be occurrent without sensory content about *that* precise shade of brown, or *that* way of being cooked. Analogue remarks hold for Emma’s memory and desire. The relevant point is that several attitudes can have mental imagery as part of their content, notwithstanding whether they necessarily do so.

<sup>13</sup> Van Leeuwen seems to make a similar point when he claims that imagistic mental states do not involve “attitude imagining”, though they involve “imagistic imagining” (Van Leeuwen 2013: 222). Recall, however, that his notion of attitudinal imagining differs from mine (fn 4). Moreover, it is not entirely clear whether his imagistic imagining coincides with my content sense of mental imagery. First, his notion indicates “an imagistic representational format” (*ibid.*), whereas I left open what kind of representational format (or vehicle) carries mental imagery as content. Second, Van Leeuwen takes imagistic imaginings to be imaginings, whereas in my view mental imagery (as content) is not sufficient to identify imaginings (see also Kind 2001: 100 and Gaut 2003: 272, who seem to implicitly draw the required distinction). Third, he defines imagistic imagining as “*re-creations* of perceptual experiences” making explicit reference to Currie and Ravenscroft’s view (Van Leeuwen 2013: 222), thus suggesting the attitude sense of mental imagery, given the attitudinal interpretation of re-creative imagination I introduced in §2.

as a cluster of different “imaginative attitudes”, that is, a broad category encompassing several types of imaginings. Despite superficial similarities with the attitude sense of mental imagery presented above (i.e., sensory imagination), Langland-Hassan position is fundamentally different.

Langland-Hassan defines sensory imagination as “all cognition that involves a sensory mental image as a proper part” (Langland-Hassan 2015: 664). Thus, according to him, sensory imagination is not really an attitude, but can be reduced to other attitudes with a certain content structure. What Langland-Hassan calls “imaginative attitudes” are in fact non-imaginative attitudes; they are judgements, episodic memories, desires and all attitudes that share a specific type of content. More precisely, on his account the content structure that characterises the sensory imagination cluster is a combination of discursive content (e.g., The Arc de Triomphe is) and mental imagery, that is, imagistic content (e.g., A BIG SILVER ARCH....).

In light of these considerations it is clear that Langland-Hassan puts forward a content-based account of sensory imagination based on the content sense of mental imagery. His view thereby essentially differs from the attitude-based account, which is based on the attitude sense of mental imagery. These accounts are not genuine competitors. While the latter deals with imaginings as *sui generis* mental states, the former deals with mental states of different kinds that somehow seem imaginative in virtue of their content. Both phenomena might be called “imaginative”. However, this terminological choice is misleading, insofar as the single label invites a conflation of fundamentally different phenomena. Such a conflation is dangerous, as it produces the illusion that the two approaches tackle the same phenomenon, and therefore that only one of them is correct. But the content-based account, once we keep the crucial distinction in mind, cannot in any way threaten the widespread agreement that imagination is a distinctive kind of mental state (or more likely, a distinctive family of mental states).<sup>14</sup> These approaches are not alternatives: they are approaches to different things.

It is therefore best to avoid using “imaginative” in this liberal way, on pain of losing grip on what the boundaries of imagination are and what counts as an imagining. Importantly, keeping these two kinds of phenomena separate opens up new conceptual possibilities that are worth close investigation.

Consider again imagistic mental states. One plausible view is that mental states involving mental imagery (as content), like Emma’s belief and memory, are imagistic, but may not be imaginative. In such cases, we entertain a non-imaginative attitude with an (at least partially) imagistic content without

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<sup>14</sup> Langland-Hassan’s larger project is to reduce imagination to other attitudes, like belief and desire (see Langland-Hassan 2012). It is though open to him to allow for an additional attitude of imagination taken toward mental imagery-involving contents. For example, one could also have IMAGINE (The Arc de Triomphe is: A BIG SILVER ARCH), where again the capital letters within parentheses describe an occurrence of mental imagery in the content sense. Then the question becomes how to understand the IMAGINE operator. The re-creativist framework sketched in §2, and which I will develop more fully in §5, offers a promising starting point.

exploiting our imagination.

Alternatively, we may hold that imagistic mental states involve mental imagery (as attitude). The idea would be that imagistic mental states are complex cognitive wholes or compresences involving two mental states: a sensory imagining and another kind of mental state (e.g., a belief, a memory, a desire). In this case we have two distinguishable mental states, belonging to different attitudes, which come to compose an imagistic state.

Different issues are motivated by these different ways of spelling out what imagistic mental states are. For example, only if we go for the second interpretation do we need a story about these complex cognitive wholes (e.g., how they originate, the kind of link tying the mental states together). This is not required if we go for the first interpretation, since in this case there are no distinguishable mental states, but at best an attitude with imagistic content. These issues pertain to different levels of enquiry: the former deals with how attitudes can be related, whereas the latter deals with how contents and attitudes are related.

Discussions about imagistic mental states and the nature of sensory imagination are not the only contexts in which different sets of issues get conflated due to the two senses of mental imagery being confused. Such equivocation is quite pervasive in the literature. In the next section I want to bring further evidence to my case. The blindspot I have been pointing to, I will show, also affects the debate on the scope and representational limits of mental imagery.

#### **4. THE SCOPE OF MENTAL IMAGERY**

Perusal of the literature on mental imagery reveals that when authors speak of mental imagery as sensory imagination, they are typically using mental imagery in its attitude sense; whereas when they examine the role of imagery in imagination, they are often ambiguous, moving from one sense to another without recognising it. This is particularly explicit in discussions about the scope of mental imagery, and has had negative consequences to that debate.

A popular view called “the multiple use thesis” (more often implicitly than explicitly endorsed) has it that the same mental image can serve different imaginative purposes (e.g., White 1990; Peacocke 1985; Kind 2001; Chalmers 2002; Martin 2002; Burge 2005; Kung 2010; Van Leeuwen 2016—see Wiltsher 2016 and Stock 2018 for a critical take). The idea is that mental imagery cannot discriminate between indiscernible perceptual scenarios. Here are some telling examples. Alan White, for instance, points out that “[t]he imagery of a sailor scrambling ashore could be exactly the same as that of his twin brother crawling backwards into the sea, yet to imagine one of these is quite different from imagining the other” (White 1990: 92). Martin gives us similar examples when he says that “one might

imagine red apples, perfect wax replicas of apples, the skins of such apples with the cores hollowed out or a cunning illusion of the presence of apples, while visualising in the same way” (Martin 2002: 403).

As we will shortly see, attention to the foregoing distinction between the attitude and content senses of mental imagery reveal an important ambiguity in the claim of the multiple use thesis. Such a distinction can help set apart two different sets of issues, which should not be confused.

When enquiring about the scope and limits of a single mental image, one might be concerned with content issues. White, for instance, seems to use “mental imagery” mostly in its content sense. This interpretation is suggested by two points in White’s analysis. First, he maintains that “imagery does not express anything, whereas imagination does” (White 1990: 92). This passage echoes the claim that pictures have no proper meaning (i.e., no intrinsic “intentionality”); for this reason a picture can get any number of interpretations. White treats mental imagery as a sort of picture; it is thereby clear that he employs the notion in the content sense, referring to a specific type of vehicle (or format).

Second, in his defence of the idea that mental imagery does not imply imagination—arguing that there are cases of the former without the latter—White treats mental imagery as a type of content that can be apprehended by attitudes different from imagination. Thus, it cannot serve to individuate imagination as a psychological attitude. The question White tries to answer is: What and how can mental imagery represent, that is, which type of content is it? If mental imagery is understood in its content sense, we might ask, when an imagining involves mental imagery, whether there is more to its content than the imagery itself. The philosophical aim is to have a better grip on what mental imagery, as a type of content, can represent and to clarify the role played by mental imagery in imagination, as well as in other attitudes.

Passages from other authors suggest that they are dealing with the same issue. Just before the passage quoted above, Martin writes: “Typically acts of imagining things to be a certain way have both imagistic and non-imagistic aspects. [...] In general, we can think of the non-imagistic aspects of a case of sensory imagining as arising out of the wider cognitive project of which the imagining is a part” (Martin 2002: 403). We can suggest the following interpretation of Martin’s words: the attitude of sensory imagination typically has mixed contents composed by imagistic and non-imagistic components. Indeed, Martin makes a parallel between mental imagery and pictorial representation: the former depicts aspects of things in a way similar to the latter. This suggests that he is concerned with the content sense of mental imagery, and thereby we should take his claim about “imagistic and non-imagistic aspects” to be about the contents of our imaginings.<sup>15</sup>

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<sup>15</sup> The same can be said about Peter Kung’s distinction between “qualitative content and assigned content” (Kung 2010: 632), though he does not seem to be concerned with the kinds of content admitted by sensory imagination only, but rather by imagination *tout court*.

However, an alternative interpretation is suggested by another passage of Martin's paper. He maintains that the difference between his examples where the same mental imagery is used for different imaginative purposes "lies not in the sensory core of imagining but the way in which that core is used in make-believe, the way in which it has, so to speak, been labelled" (*ibid.*). The expression "make-believe" brings cognitive imagination to mind, that is, a type of attitude, and hence suggests that Martin is introducing the attitude sense of mental imagery in his analysis. The idea would be that typically imaginings are complex states composed of a sensory imagining and a non-sensory imagining, say, a cognitive imagining (see also Peacocke 1985).<sup>16</sup> How sensory imagination and cognitive imagination are related is an interesting issue that belongs to the attitudinal level of enquiry, since it aims to better understand the relationship between attitudes, rather than the relationship between contents and attitudes.

If mental imagery is understood in its attitude sense, we might ask about the scope and limits of a single sensory imagining. This also involves questions about content, but aimed at exploring sensory imagination as an attitude. This is very similar to what happens in philosophical analyses of perception. We can ask what we can genuinely perceive, as well as where perceiving ends and another kind of mental state begins, for instance judging or believing. These are questions about content (e.g., What can enter in the representational contents of our perceptual experiences?), but they are framed with the aim of throwing light on perception as an attitude. These questions are even more pressing in the case of sensory imagination, if we consider that in a perceptual experience there is an object before one to which the content of one's experience refers, whereas typically the objects of sensory imaginings are, as it were, before one's "mind's eyes", "mind's ears", etc.

The foregoing analysis reveals two interpretations of the claim that the same mental imagery can serve different imaginative purposes: (i) a single mental image as a content can be used by different (sensory) imaginings; (ii) a single mental image as an attitude (*viz.* a single sensory imagining) can fulfil different imaginative purposes. Both interpretations deal with the limits of mental imagery, but in different ways. This is easily seen by looking at what should "complete" the work of mental imagery according to the two interpretations. Analogously to the considerations in section 3, mental imagery would need, in the former case, another type of content (perhaps propositional or conceptual), whereas, in the latter, another attitude (e.g., cognitive imagination, supposition, or even belief).

If we go back to White's example of the sailor, one thing is to say that one can sensorily

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<sup>16</sup> Nick Wiltsher (2016) takes Christopher Peacocke to deal rather with content issues, thus suggesting a view similar to Kung's (see fn 15). It is though unclear whether this is the appropriate interpretation of Peacocke's view. He introduces the notion of "suppose-imagining" (*i.e.*, imagining similar to supposing) to account for cases in which the same mental imagery is used for different imaginative purposes. Such a notion is quite elusive, but it might be argued that it captures cognitive imagination, thus indicating that he is concerned with attitudinal issues.

imagine a specific sailor (say, Paul and not his twin Peter) by means of a hybrid content. That it is Paul swimming, rather than Peter, is grasped by the sensory imagining thanks to a content that involves more than mental imagery, namely a non-imagistic component (e.g., propositional, conceptual) that adds to the mental imagery that it is Paul who is swimming. Another thing is to say that sensory imagination alone cannot capture Paul and distinguish him from Peter, but that this intention can be fulfilled by the additional work of another attitude (e.g., cognitive imagination).

It should be clear by now the different philosophical routes we can explore in the debate on imagination once we introduce the distinction between attitude and content senses of mental imagery. Importantly, different problems are likely to get muddled in the absence of a clarification of the relevant notion of mental imagery at stake.

These considerations reveal the need not just for a conceptual distinction between the attitude sense and the content sense of mental imagery, but also for a terminological distinction. Only by philosophically regimenting the use of the term “mental imagery” can we avoid conceptual confusions like those I have shown so far. Although the literature employs that notion in these two senses, my proposal is to endorse only one sense of mental imagery, the content sense. It is a mistake to think that mental imagery is equivalent to sensory imagination. Sensory imagination is an attitude, one of many that employs mental imagery (in the content sense). We also need a theory of imagination able to make space for sensory imagination and mental imagery so understood—i.e., as attitude type and content type, respectively. I will now outline such a theory.

## **5. TOWARDS AN ATTITUDINAL THEORY OF IMAGINATION**

In section 2 I introduced an attitude-based account of sensory imagination based on the re-creativist approach to imagination. Let us expand this insight to ground a unifying theory of imagination as a type of attitude. More specifically, we can understand imagination as a family-attitude, with internal clusters that correspond to genus-attitudes and species-attitudes. I call the resulting theory the “attitudinal theory of imagination”.<sup>17</sup> On this view, sensory imagination is understood as a genus imaginative attitude re-creating perceptual experiences, and constituted by species of imaginative attitudes, each of which re-creates different types of perceptual experience (visual, auditory, tactile,

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<sup>17</sup> This approach is analogous to the “attitudinal theory” of emotion put forward by Julian Deonna and Fabrice Teroni (2012), which sees emotion as an attitude that comes in a variety of distinct specific emotional attitudes. I take the “attitudinal theory” to be a general philosophical framework that can be extended to attitudes other than emotions. Its aim is to account for both the unity and the heterogeneity of a given attitude without calling on the notion of content, as the relevant attitudes under scrutiny are not individuated by or reduced to the type of content they involve. This is desirable, given that accounts unable to do justice to this unity within heterogeneity (or heterogeneity within unity) fail to recognise the richness and variety of phenomena such as imagination and emotion.



etc.). The attitudinal theory of imagination, thus, naturally makes room for sensory imagination (i.e., the attitude sense of mental imagery).

The attitudinal theory of imagination has also the resources to advance our understanding of the relationship between sensory imagination and mental imagery, and thus to clarify the boundaries of the imagination. This can be seen in how the theory accounts for imagistic mental states. Belief, desires, memories and probably many other mental states can be imagistic in the sense that they involve a specific type of content that can be appropriately called “mental imagery”. The attitudinal theorist of imagination rejects the idea that these mental states are imaginative in the sense of belonging to the attitude of imagination, since they really are genuine beliefs, desires, or memories. However, she can explain the (misguided) tendency to consider these imagistic mental states as imaginative.

As we have seen, imagistic mental states involve mental imagery, viz. a specific type of content. Kind speaks of mental imagery as “the *paint* of the imagination” (Kind 2001: 108). I agree with her in thinking that the role of mental imagery is “neither the role of individuator of the imagining nor the role of object of the imagining, but rather, the role of *capturing the object* of the imagination” (*ibid.*, italics added). Following Kind’s suggestion, we can say that mental images mentally model states of affairs by encoding spatial configurations and other manifest properties such as shapes and colours. For instance, a big silver arch mental imagery captures most of the manifest properties of a big silver arch.

By contrast, according to the attitudinal theorist, sensory imagination is the capacity to mentally model attitudinal features of perceiving—i.e., sensorily imagining is phenomenologically and functionally similar to perceiving (see §2). Sensorily imagining a big silver arch is like being in the mental state associated with the perceptual experience of a big silver arch. A sharp difference between mental imagery and sensory imagination emerges.<sup>18</sup> To put it in a motto: mental imagery offers to sensory imagination what the world offers to perception.<sup>19</sup>

These considerations shed light on why sensory imagination and mental imagery are so often confused, and why the distinction I draw here is mostly neglected. Both mental imagery and

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<sup>18</sup> Also Dominic Gregory (2010) claims that mental imagery displays how things look or sound and maintains that there are mental images that do not belong to sensory imagination. However, the extent to which our views are consonant is not obvious, since he also claims that mental images have a quasi-sensory nature, and feel like copies of perceptual experiences. In my view the latter are features proper to sensory imagination, rather than to mental imagery. Similarly, Dustin Stokes (2018) holds that mental imagery represents perceptible properties (e.g., colours and shapes), but also that it is a conscious experience phenomenologically similar to perceptual experience.

<sup>19</sup> On this view sensory imagination may have recourse to something else that fulfils, at least partially, the role of mental imagery. A sensory imagining may rely not only on mental imagery, but also on real objects. This seems to be what Alastair Hannay has in mind when he conceives imagination as “a process of visual supplementation, and of which imaging [i.e., entertaining a mental image] is a limiting case in which there is nothing to supplement” (Hannay 1971: 222).

sensory imagination are somehow re-creative, but in a different sense. There are two types of re-creation: *objectual* re-creation (i.e., the re-creation of a state of affairs), and *mental* re-creation (i.e., the re-creation of attitudinal features of a mental state).<sup>20</sup> While mental imagery is re-creative in the first sense, sensory imagination is re-creative in the second sense (where the relevant mental state re-created is a perceptual experience).

One might object that sensory imagination can be reduced to mental imagery so understood. The idea is that objectual re-creation, by encoding spatial configurations and other manifest properties, also encodes information concerning the viewpoint from which a given situation is taken, which would exhaust what sensory imagination (i.e., the mental re-creation of perceptual experiences) conveys. However, like perception, sensory imagination encompasses more than mere perspectival information: it also conveys self-relative information, that is to say, it specifies the type of self “occupying” the given viewpoint. For example, Emma can imagine seeing a lilac bush through the living room window from her point of view, but also from the point of view of her sister and even, going further beyond her perceptual capacities, from a virtual or counterfactual first-person perspective—in the sense that she is imagining a situation from a spatial perspective that any subject having normal vision would have if appropriately oriented in the imaginary world (see Dokic & Arcangeli 2015b). There are many ways of visually imagining one and the same spatial perspective depending on what self is at stake, and the relevant self-relative information cannot be reduced to information about manifest properties. Thus, sensory imagination cannot be reduced to mental imagery (as objectual re-creation).

Objectual re-creation does not entail mental re-creation, since mental imagery can be involved in mental states other than imaginings. The converse is also true: mental re-creation does not entail objectual re-creation. If we hold that there is more to imagination than sensory imagination, mental re-creation goes beyond the latter and covers other varieties of the imagination. Cognitive imagination, for instance, can be seen as the mental re-creation of belief. This variety of the imagination can involve mental imagery (viz. objectual re-creation), but it does not necessarily do so.

The fact that mental imagery is objectually re-creative might explain the philosophical intuition that leads to group together imagistic mental states, such as imagistic beliefs and imagistic

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<sup>20</sup> It is an open question whether these two types of re-creation involve similar processes. That imagination involves mental, rather than objectual, re-creation is suggested by Catharine Abell and Gregory Currie (1999—see also Currie & Ravenscroft 2002: 41). Likewise Alvin Goldman, who uses the notion of mental imagery in its attitude sense, rejects “that visual images resemble *objects* or *scenes* visualized” (Goldman 2006: 38). According to Goldman mental imagery is an example of mental simulation, which is “a replication or duplication of another *mental* state. A mental simulation is a simulation *of* a mental state *by* a mental state” (Goldman 2006: 51, fn 10).

desires, and to call them “imaginative”. These mental states involve, perhaps even necessarily, objectual recreation, just like most of, if not all, sensory imaginings. According to the attitudinal theorist of imagination, however, what the latter necessarily involve in order to be genuine imaginings is mental, rather than objectual, re-creation. The attitudinal theorist of imagination thereby does not recommend calling objectual re-creation “imagination”. The reason for this is pretty obvious: the attitudinal theorist of imagination defines it as a family-attitude embracing genera and species of imaginative attitudes. In such a picture, there can be no place for mental imagery understood as objectual re-creation, since it concerns a different kind of phenomenon.

The attitudinal theory of imagination can also help us to reframe the debate on the multiple use thesis. Once we posit that sensory imagination is the re-creation of perception, we can ask if and to what extent these different attitudes share the same representational limits. A further question is whether these limitations are due to their being the types of attitude they are, or to the types of content they have. The debate on the multiple use thesis can thereby be seen as closely related to the issue of the representational power of perception (see, e.g., contributions in Hawley & Macpherson 2011). Philosophers disagree about what perception can be about. Some find it intuitive that a perceptual experience of, say, an apple, has the same content as the perceptual experience of something that merely looks like an apple, for instance a wax replica of an apple. Some hold that the sharing of content is true even of an illusion or a hallucination of an apple. However, doubts have been cast on the equivalence of the representational properties of all these types of experience. The aim of the debate is to identify perceptually indistinguishable situations that can support the idea that perception is limited in its representational power (in a different way compared to, e.g., belief). The perception-like nature of sensory imagination raises similar concerns, which are underlined by a similar idea, that is, that sensory imaginings are somehow limited in their representational power. Moreover, I believe that the importance of examining similar issues in both sensory imagination and perception lies also in drawing the boundaries between these two attitudes.

Surely the question about the precise nature of the representational limits of sensory imagination has not yet been settled, and what counts as indistinguishable for sensory imagination (that is, senso-imaginably indistinguishable) is far from clear. For instance, as we have seen, it is debatable whether sensory imagination can capture alleged perceptually indistinguishable situations such as the difference between sensorily imagining an apple and sensorily imagining a wax replica, or the difference between sensorily imagining Peter and sensorily imagining his monozygotic twin Paul. One might want to maintain that these differences are captured by sensory imagination, and to set differently the limits of sensory imagination.

Take Descartes’ famous example of the chiliagon. We might argue that a chiliagon (i.e., a

thousand-sided polygon) and a myriagon (i.e., a many-sided polygon) of a little less than a thousand sides are genuine senso-imaginably indistinguishable—even if they are probably perceptually distinguishable. The reason might be that sensory imagination shows a content with different richness, determinacy or saturation compared to perception (terminology varies among authors, but the point seems to be the same). The idea is that the quantity and the quality of information involved in the contents of sensory imaginings are less rich and fine-grained than the information involved in the contents of perceptual experiences, though still richer and finer-grained than the information involved in the contents of other mental states, such as belief (see fn 11). This feature of sensory imagination may be an architectural limit rooted in human cognitive structure. Hence, the representational limits, whatever they are, of sensory imagination would be architectural limits. An analysis of such limits can therefore shed light on the architectural differences between sensory imagination and perception.

## 6. CONCLUSION

In this essay I tried to expose a blindspot in the literature on imagination, namely two different senses of mental imagery that are often ignored or confused. On the one hand, mental imagery has been used to refer to a psychological attitude, which re-creates perception. This attitude is sensory imagination. On the other hand, mental imagery has been used to capture a type of mental content, which can be grasped via different attitudes. To better sort out the terrain and avoid potential confusions I suggested stopping to use the term “mental imagery” as a proxy for sensory imagination: mental imagery should only refer to a type of mental content. I pleaded for an attitudinal theory of imagination as the best philosophical route to take in order to account for the distinction between sensory imagination and mental imagery. The attitudinal theorist of imagination has only just begun to explore the potential of such a distinction. As I have shown in this paper, a promising starting point is to use it to distinguish two types of re-creation, namely re-creation of mind in the case of sensory imagination, and re-creation of world in the case of mental imagery. This distinction brings much needed clarity to the many debates where sensory imagination and mental imagery are invoked, encompassing questions about the representational power of sensory imagination, the cognitive penetrability of perception (e.g., Macpherson 2011), amodal perception and hallucinations (e.g., Nanay 2010 and 2016)<sup>21</sup>, among others.

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<sup>21</sup> The usefulness of the distinction for the debate on hallucinations has been suggested by Jérôme Dokic (2016), based on an earlier version of this paper.

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