

DRAFT, please don't cite without permission

Is attention a non-propositional attitude?

Sebastian Watzl

Introduction

The investigation of attention has been pursued in a surprising disconnect from the investigation of other aspects of the mind. Much of the philosophical discussion of perception, belief, desire, intention, imagination or emotion, for example, revolves around issues of intentionality and content. Versions of the following questions will, thus, sound familiar to many philosophers: is perception an intentional state or is it fundamentally relational? Does perception have intentional content? If so, how is that content structured? Is it, for example, propositional? And is it conceptual or non-conceptual? In contrast to the sophisticated and detailed treatment of these and related questions in the philosophy of perception (and similarly for the other mental states) the discussion of the corresponding questions about attention - whether it is, for example, intentional, propositional, or non-conceptual – insofar as it exists at all, has been mostly confined to casual side notes.

One major goal of this essay is in to bring the philosophy of attention into better contact with other aspects of the philosophy of mind. In order to focus the discussion, I will investigate the following view about the nature of attention:

The Non-Propositional Attitude View Attention is or is constituted by an irreducibly non-propositional, intentional mental attitude.

According to the NPA view, attention is an intentional attitude that is normally directed at something other than a proposition, and cannot be reductively explained in terms of propositional attitudes.

It is surprising that the NPA view has not yet been examined in any detail, as it seems to fit so well with how we normally talk about attention. We say that someone's attention is captured by the sound of a siren, that someone pays attention to the color of other people's clothing, or that a subject – in the course of a psychological experiment – focuses her attention on a specific grey square. Paying attention to something seems to exhibit the *intentional directedness* that also characterizes seeing something, fearing something, or desiring something; and the *objects of attention do not appear to be propositions* (in our examples they are sounds, colors, and grey squares). So, it seems – initially at least – just as plausible to think of attention as a non-propositional intentional attitude, as it is to think of perception, fear, and desire as non-propositional intentional attitudes.

Now, the NPA view, in order to be plausible, arguably needs to be restricted to a certain variety of attention. It may seem misguided, for example, to locate a non-propositional attitude in the attentive performance of a piano piece, or when someone plays a board game with all their attention. In what follows, I will, thus, put to one

side what is often called *central* or *executive* attention, where the subject's attention is engaged by the performance of a task or activity. By contrast, the NPA view seems fairly attractive as an account of *paying attention to something* or, equivalently, *attending to something* (whether perceptually, by listening to it or looking at it; intellectually by thinking about it; or emotionally by, say, being angry at someone). The NPA view is also plausible as an account of *having one's attention captured by something* (whether, again, by something one perceives or by an idea or mental image). My discussion will, thus, be restricted to what is often called *endogenous attention* (a certain type of internally controlled mental activity) and *exogenous attention* (the stimulus controlled attention capture). We would have made progress in the philosophy of attention, if we could show the NPA view to be correct of those two species of attention, even without a further account of executive attention. Indeed, the NPA view has a plausible *unified* treatment of endogenous and exogenous attention: it may treat attention capture as the *passive acquisition* of the relevant non-propositional attitude, and treat actively paying attention to something as the *activity of maintaining* that non-propositional attitude.¹ A shift of attention (like when the subject shifts her auditory attention from one instrument to another) would be treated as a change in the non-propositional attitude: first our subject is bearing the non-propositional attitude to, say, the sound of a piano, and then she is bearing it to the sound of a saxophone.

In the first half of this paper, I will provide arguments that make the NPA view attractive, and provide some details with regard to how the NPA view may be developed.

In the end, though, I believe that the NPA view is not fully successful. In the second half of the paper, I will argue that the NPA view faces problems that push towards a related, but interestingly different account of the nature of attention that I have defended in detail elsewhere (Watzl 2017). While it is true that attention is almost always non-propositional and almost always intentionally directed, it is not an intentional *attitude*. Rather, it is constituted by an almost always non-propositional structure of mostly intentional states. So, while the NPA view has much to speak for it, we should reject it in favor of the following:

The Non-Propositional Structure View Attention is or is constituted by an irreducibly non-propositional mental structure.

The NPS view agrees with the NPA view that attention is (often) intentional and non-propositional. But it says that attention most fundamentally it is not a mental *attitude*. Instead, attention is constituted by a non-propositional *structure* of the intentional mind. In other respects, the NPS view shares much with the NPA view: it would treat attention capture, for example, as the *passive acquisition* of the relevant mental structure, actively paying attention to something as the *activity of maintaining* that mental structure, and attention shifts as changes in the mental structure.

¹ This idea is inspired by Soteriou's treatment of noticing and watching (Soteriou 2012).

Here, then, is how I will proceed. Section 1 contains preliminaries that, on the one hand, motivate the rest of the paper, and, on the other hand, defend an important presupposition of the following discussion. Section 2 is devoted to the arguments for the NPA view and to a discussion of how such a view might be developed. Section 3 raises some problems for the NPA view, and argues that these problems point in the direction of the NPS view as an alternative. I will briefly sketch the alternative, how it solves the problems raised, and some of its consequences. I end with a brief conclusion in Section 4.

1 Preliminaries

1.1 The mind: bundle or structure of attitudes?

Suppose you do not specifically care about attention (thanks for making it this far!). You do care, though, about the intentional structure of the mind. In this section, I provide two reasons for reading this paper.

First, the investigation of the NPA view and its comparison to the NPS view is relevant to whether *intentionalism* is true about the mind. According to intentionalism, as I will understand it, all mental phenomena are reducible to intentional phenomena.²

What is an intentional phenomenon? A plausible and common understanding is to think of it as a subject's bearing of an intentional *attitude* toward an intentional *content* and/or an intentional *object*. Paradigms of such intentional attitudes are a subject's judging that grass is green or her desiring a cup of coffee. Here judging and desiring are the relevant attitudes, the proposition that grass is green is an intentional content, and the cup of coffee is an intentional object.

When, then, is a mental phenomenon *reducible* to such intentional attitudes? We can distinguish *strong* reducibility and *weak* reducibility.

If every mental phenomenon is *strongly* reducible to intentional phenomena, then every mental phenomenon is *fully* explained by the various intentional attitudes a subject bears towards intentional contents and objects. *Strong intentionalism* is committed to what may be called a *bundle of attitudes picture* about the mind: there is nothing more to an individual's mentality than her intentional attitudes. A subject's mind is just a collection or bundle of her attitudes, so that a comprehensive account of her mental life at any given time is provided by listing those attitudes.

By contrast, *weak reducibility* allows that some mental phenomena are *only partially* explained by the various intentional attitudes a subject bears towards intentional contents and objects. On this view, while intentional attitudes figure in *every*

² E.g. Crane 1998.

explanation of a mental phenomenon, they do *not exhaust* this explanation. According to *weak intentionalism*, there can be no mentality without intentionality, and yet there is more to an individual's mentality than her intentional attitudes. As an instance of weak intentionalism that will concern us here, consider an *organization of attitudes picture*. On this model, a subject's mind consists of all of her intentional attitudes *plus* a structure that organizes those attitudes (the way the parts of her mind are put together). The structure cannot exist without intentional attitudes that fill the structure, so there can be no mind without intentional attitudes. But there is more to an individual mind than her intentional attitudes, since the organizing structure is not itself an intentional attitude.

Given that attention seems to be a mental phenomenon, intentionalism has to show that attention is reducible to intentional attitudes. Strong intentionalism entails that attention either is itself an intentional attitude or that it can be fully explained in terms of other such intentional attitudes. Given that – as I will argue – attention cannot be fully explained in terms of other *propositional* attitudes, the NPA view thus is the best bet for how strong intentionalism could accommodate attention. Since that accommodation fails, I argue, we have to reject strong intentionalism and settle for at best weak intentionalism: in order to explain attention, we need a structure of the mind that goes beyond attitudes and intentional contents and objects. The NPS view is compatible with weak intentionalism but not with strong intentionalism.

As a second point of interest, consider that the investigation of the NPA view and its comparison to the NPS view is relevant for whether *propositionalism* is true. According to propositionalism all intentional phenomena either are or are reducible to *propositional* attitudes.

If propositionalism were true, then desiring a cup of coffee, for example, while on the surface not seeming to have propositional content could still be fully explained in terms of propositional attitudes. The same goes for fear of spiders or searching for the Fountain of Youth.

While propositionalism recently has been much criticized (see e.g. Montague 2007; Grzankowski 2012, 2013; Crane 2014) the case remains controversial. Sinhababu (2014), for example, argues that propositionalism can account for the cases of alleged non-propositional attitudes that are discussed in the literature. If the NPA view could be substantiated, then opponents of propositionalism would have a new case to appeal to (critics like Sinhababu, after all, do not discuss attention). In contrast to the NPA view, though, the NPS view is *compatible* with propositionalism. Given that attention is not an attitude, its non-propositional character is compatible with the claim that all intentional attitudes are *propositional* attitudes.

My defense of the NPS view over the NPA view thus amounts to a partial defense of propositionalism, against the challenge coming from attention specifically. Indeed, insofar as it is plausible that other apparently non-propositional attitudes like desiring a cup of coffee, fearing spiders or searching for the Fountain of Youth can be explained in terms of propositional attitudes and characteristic patterns of attention

that highlight or make salient the relevant intentional objects,³ the NPS view indeed may be used as a starting point for a defense of propositionalism on a broader front. On the resulting picture, all attitudes would be propositional attitudes, but the mind would – in addition – have a non-propositional, and non-attitudinal structure. The defense of the NPS view thus can function as a resource in a defense of propositionalism – if combined with only weak intentionalism.

1.2 We should treat attention like perception, thought, and desire

The discussion of this paper presupposes that attention is a mental phenomenon in the sense that is at issue in discussions of intentionalism or propositionalism. Some might question whether this presupposition is justified. Isn't attention a computational or neuronal mechanism, and hence a topic best left to neuroscientific and psychological study? Few would find a discussion of edge detection mechanisms or working memory pertinent with regard to propositionalism, so why should we discuss attention?

This objection, though, is misguided. There is no good reason to treat attention differently than, for example, perception, thought, fear, hope and desire. If – and this is indeed an assumption of this paper – we can make progress toward understanding perception, desire or emotion by asking whether they are, for example, non-propositional attitudes, it would be surprising if the relevant philosophical tools became toothless when applied to attention. Attention is similar to phenomena like perception, desire or emotion at least in the following four ways.

First, attention, unlike edge detection or working memory, is an important aspect of what is often called *folk*-psychology: an important aspect of how we experience, think and talk about the mind outside the scientific laboratory. Indeed, already infants are extremely sensitive to whether their caregivers pay attention to them, and react differentially to attentive engagement. “The attention of others,” suggests developmental psychologist Vasu Reddy (2008, p. 90), “is probably the first, simplest, and most powerful experience that we have of mentality.” And according to Susan Carey, a rudimentary conception of attention may indeed be a part of innate core knowledge regarding mentality, at least developmentally more fundamental than conceptions of belief or desire.⁴

Second, attention is also an important aspect of the intuitive conception we have of *our own* mentality. As William James (1890/1981, p. 424) famously put it: “Every one knows what attention is. ... Focalization, concentration, of consciousness are of its essence.” Attention is an important part of our conscious experience: there often is something it is like to focus attention on something. We thus know something about attention in roughly the same way we know about perception, emotion or desire, by

³ While the details of such views remain to be developed, the development could, for example, draw on Scanlon's (1998) ‘desires in the directed-attention sense’ or ideas in Railton 2010.

⁴ Carey 2010, Ch. 5, p. 157ff

phenomenological reflection on our own experience. Whether or not attention is *essentially* conscious, we get some initial grip on the phenomenon from the way it shapes our experience.⁵

Third, attention is an “inner” form of mentality just like perception, emotion or desire. While attention – like the latter – *sometimes* has a characteristic bodily expression, we *often* deploy attention without a characteristic overt expression.⁶ A subject may focus her auditory attention on one instrument in an orchestra or on one aspect of the music without any overt bodily signs. The same is true for visual attention. We may shift attention to something without a movement of the eyeball,⁷ and we may focus attention on one feature (like color) rather than another (like shape) without a difference in bodily posture.

Fourth, just like the nature of desire or belief is unlikely to be found in a specific aspect of neuronal or computational processing, the nature of attention can probably not be found on that level either. On the level of such processing, we find a diverse variety of processes and properties, and not a unified neuronal or computational kind with which attention could be reductively identified. Attention – like perception, desire or emotion – appears to be a subject level mental phenomenon, without a reductive nature.⁸

To sum up: attention is characterized by the following features. It is part of folk-psychology, an aspect of conscious experience, intuitively “inner”, and without an easy reductive identification. While a detailed defense of these claims would need more space (see Watzl 2017), I take the presumption to be vindicated that attention is a mental phenomenon in the same sense as perception, fear, hope, and desire.

2 Attention as a non-propositional intentional attitude

2.1 Attention is intentional

According to the NPA view, attention is a non-propositional intentional attitude. In the next two sections, I will argue that attention is indeed intentional, and that it is non-propositional. This seems to support the NPA view. Let us start with the intentional character of attention.

⁵ Recent evidence strongly suggests that attention is *not* essentially conscious. See Kentridge (2011) for a fairly recent overview.

⁶ Psychologists routinely distinguish between overt (i.e. bodily expressed) forms of attention, and covert forms of attention (see e.g. Wright and Ward 2008 for a review).

⁷ Wright and Ward 2008 for a detailed review of covert visual attention shifts.

⁸ See Watzl (2017, Ch. 1). Note that I do not claim that attention has *no* reductive explanation. I am only claiming that any reductive explanation of attention is likely to be as complex as a reductive explanation of perception, thought or desire. Skepticism toward an understanding of mentality in such terms as “content”, “attitude”, or “intentionality” should not be directed to *attention* alone.

The concept of intentionality is often introduced with reference to Brentano's idea of "the mind's direction toward an object",⁹ or his idea that certain mental phenomena are such that they include "something as an object within itself."¹⁰ Call this *the intuitive conception* of intentionality. In order to give the reader a grip on the idea of intentionality a number of paradigms are often considered, such as thinking about something, desiring something, looking at something or listening to something.

Attentional phenomena are included within those paradigms: directing attention to something and having one's attention captured by something are *paradigms* of the idea that the mind is directed toward an object or includes an object (the object of attention) within itself. "Attending and perceiving are [...] paradigmatic intentional relations", Susan Carey (2011, p. 158), for example, observes. It is thus hard to think of an *argument* for why attention should be understood as an intentional phenomenon, when intentionality is conceived of by reference to Brentano's idea. Attention seems to be one of a range of phenomena that help to fix the referent of the technical notion of intentionality.

Consider also the phenomenological observation according to which those with an intentional life have a perspective or point of view on the world. Call this *the phenomenological conception* of intentionality.¹¹ Here is how Tim Crane (2001) expresses this idea.

What the daffodil lacks and the 'minded' creature has is a *point of view on things* or [...] a *perspective*. We might express this by saying that a minded creature is *one which has a world*: its world.

Attention is intimately connected to the idea of a point of view or perspective on the world. By describing how a subject attends we seem to describe the subject's perspective or point of view. In William James's (1890/1981, p. 424) words: "each of us literally chooses, by his ways of attending to things, what sort of a universe he shall appear to himself to inhabit." Consider, for example, how intuitive it is to think about differences in attention when we think about differences in subjective perspectives. In her popular science book *The Philosophical Baby* (2010), developmental psychologist Alison Gopnik illustrates differences in the subjective perspectives of babies and adults by describing differences in the ways they attend. While the perspective of adults is often narrow and focused (their attention takes the form of a narrow spotlight), the perspective of babies is wide and open (their attention is distributed and takes the form of a lantern that illuminates everything at once). Attention, thus, seems clearly intentional also in the sense that is intimately connected to having a subjective perspective or point of view on the world.

⁹ Brentano 2014

¹⁰ Ibid.

¹¹ Crane 1998.

Finally, consider that intentional states are often thought to play a distinctive role in the explanation of agency. A person's intentional states are those states that explain her actions in a rational or sense-making way. Call this *the pragmatic conception* of intentionality. Robert Stalnaker (1984) expresses the view as follows.

Representational [= intentional]¹² mental states should be understood primarily in terms of the role that they play in the characterization and explanation of action. What is essential to rational action is that the agent be confronted, or conceive of himself as confronted, with a range of alternative possible outcomes of some alternative possible actions. The agent has attitudes, pro and con, toward the different possible outcomes, and beliefs about the contribution which the alternative actions would make to determining the outcome. One explains why an agent tends to act in the way he does in terms of such beliefs and attitudes. And, according to this picture, our conceptions of belief and of attitudes pro and con are conceptions of states which explain why a rational agent does what he does. Some representational mental states—for example, idle wishes, passive hopes, and theoretical beliefs—may be connected only very indirectly with action, but all must be explained, according to the pragmatic picture, in terms of their connections with the explanation of rational action.

Does attention play a role in the explanation of rational action? While much work in the philosophy of action has had no room for attention, in a recent series of writings Wayne Wu (2008, 2011a,b, 2014) has argued that there is such a role. I believe that Wu is correct in identifying a crucial role of attention in the explanation of rational action.¹³

The rough idea, in my version of Wu's crucial insight, is that it is characteristic of rational action, as opposed to mere reflex, that the agent is confronted with many perceptual inputs (a complex scene) and many possible behavioral outputs (she can act flexibly). Wu calls this the Many-Many Problem. Intentional (or rational) action, Wu writes, "requires a solution to the Many-Many Problem by selection of a specific linkage between input and output" (2008, p. 50). Attention is directly involved in the solution. In the complex way the agent represents the world, attention prioritizes some aspects, to which she then couples her behavioral response. Attention, thus plays a critical role in the rational explanation of action: it prioritizes aspects of the way the map by which the agent steers represents the world for her behavior in that world. By doing so, attention is essential for guiding the agent's behavior through her environment in the way that is characteristic of rational action (this is so exactly because, in Stalnaker's terms, intentional agents conceive of themselves as being confronted with a range of possible actions in light of how they take the world to be). Neither her standing beliefs and desires, her long-term intentions, nor her perceptual

¹² Stalnaker (p. 2) explicitly identifies representational and intentional states.

¹³ I disagree with Wu's claim that attention *is* selection for action (see Watzl 2017, Ch. 5).

experience would be enough to determine a *specific action* in an agent's concrete situation. In many cases, at least, the agent needs to prioritize some aspects of what she is confronted with over others. And this is exactly what attention delivers.¹⁴

Attention thus is intentional on the intuitive, the phenomenological and on the pragmatic conception of intentionality. It is hard to deny that attention is an intentional phenomenon (as we will see below, though, that is true, only in the weak sense of intentionalism).

2.2 Attention is non-propositional

Assuming that attention is intentional, is it a *propositional* intentional attitude? If it were, then attention would have propositional content. As a first indication of whether attention has propositional content, we can consider whether it is linguistically picked out by an 'A-ing that *p*' ascription, where 'that *p*' is taken as the canonical way of referring to a propositional content.

Both endogenous attending as well as attention capture are ascribed by relational predicates. We can focus attention on, and have our attention captured by, a variety of different entities. These include the following.¹⁵

- *Material objects*: "attending to *this glass*."
- *Locations* in the environment or on the body: "attending to *this location*."
- *Events*: "attending to *this sound or this flash*."
- *Processes*: "attending to *the leaves' rustling, on the light's flickering*."
- *Properties/Features/Qualities*: "attending to *the color, or the shape*."
- *Facts*: "attending to *the fact that this is red/square/absent*." "His attention was caught by *the fact that this is red/square/absent*."

¹⁴ Watzl 2017 for more on my own take on the connection between attention and agency. Jennings and Nanay (2014) provide an argument to the effect that some (non-paradigmatic) forms of agency might not require attention. This targets Wu's claim that attention is essential to agency. It does not target the present claim. To be an intentional phenomenon, according to the pragmatic picture, does not require that the relevant phenomenon is essential for the rationalizing explanation of *all* actions (emotion, perception or even conscious thought are not involved in *all* actions either). The picture only requires that an intentional phenomenon is essentially involved in a rationalizing explanation of *some* (or maybe a large and important enough class of) intentional actions.

¹⁵ I provide examples of attending to something. Most of these work for attention capture as well (though, interestingly, while it seems that we can focus attention on a location, it seems that locations cannot capture our attention). Note also that while I here introduce these examples intuitively, examples like these can also be found in any textbook on attention (e.g. Wright and Ward 2008).

None of the attentional constructions directly take that-clauses.¹⁶ All of the following are misformed:

- (*7a) She focuses attention on that p .
- (*7b) She directs attention to that p .
- (*7c) She pays attention to that p .
- (*7d) Her attention was captured by that p .

Most attentional constructions, thus, do not appear to be propositional attitude constructions. While facts (which are, arguably, structured like propositions) are indeed *among* the objects of our attention, most objects of attention are not facts. Further, attention to locations, objects, events, and the like cannot be reduced to attention to facts in any straightforward way: it is one thing to focus attention on a glass in front of you, but a different thing to focus attention on the fact that there is a glass in front of you. The first is normally a perceptual act, while the second rather seems to be an intellectual act where you contemplate a certain fact for, say, the purpose of philosophical discussion. Thus, even if attending to the fact that p could be treated as a propositional attitude, most cases of attending are not cases of attending to facts (for comparison, consider that among the things people like are some facts, as well as cups of coffee and other objects. Liking would not be a propositional attitude simply because *sometimes* people like facts – or indeed propositions).

Linguistically, most cases of attention, thus, are not picked out by *A*-ing that p constructions. This is a first indication that attention is probably not a propositional attitude.

But a proponent of a propositional view of attention need not give up so easily. Let us consider a version of the propositional view according to which there is nothing more to attention than the bearing of propositional attitudes – even though attention might not have the *surface* structure of a propositional attitude (cf. Tye 2010, p. 429). We have the following position:

The Propositional View For each instance of attending to x (or having one's attention captured by x), there are some propositional attitudes $A_1 \dots A_N$ and propositions $p_1 \dots p_N$ such that attending to x (or having one's attention captured by x) just is bearing A_1 to p_1 , A_2 to p_2 , ..., and A_N to p_N .

¹⁶ In some other languages attention constructions do take that clauses (thanks to Anders Nes for pointing me to this fact). Consider German: "Fritz lenkte/richtete seine Aufmerksamkeit darauf, dass er dieses Glas in Rom gekauft hatte." [Fritz directed/focused his attention on/to that he had bought this glass in Rome.] Similar expressions occur in the Scandinavian languages. Several other languages seem to be like that too (e.g. Hebrew). To my knowledge, though, in none of these languages do attention constructions *only* take that clauses. Further, at least in German the that clause constructions are relatively rare. Search in an important corpus of written German (Archiv der geschriebenen Sprache "Alle öffentlichen Korpora" available here <http://www.ids-mannheim.de/cosmas2/web-app/>, containing 1.5 Billion words) reveals that "Aufmerksam(keit) darauf, dass" constructions account for less than 0.2 % of the occurrences of "Aufmerksam(keit)".

While I believe that the propositional view is false, it should not be dismissed out of hand. Aside from the general appeal of propositionalism about intentionality, it has at least the following two attractions – which also indicate how the propositional view may be best developed.

First, a proponent of the propositional view could wholeheartedly endorse the observation that attention is not picked out by propositional attitude ascriptions. The propositional view of attention, she might argue, should not be defended by treating attention as a specific attitude the subject might bear to any number of propositions, but rather by treating attention in terms of representing *specific propositions*. Auditory attention to a sound, for example, should be treated as the perceptual representation of specific propositions about that sound. Maybe the sound is perceptually represented as (in a context specific way) interesting, important or salient. Cognitive attention to an idea on a similar model would be treated in terms of thoughts that this idea is (in a context specific way) interesting, important, or salient.

This treatment of attention is plausible in light of the *dependent character* of attention (to which I will return later. See also Watzl 2017, Ch. 4). That is: it seems highly plausibly that one cannot *just* attend to something. What a subject focuses her attention on (or what captures her attention) must always be present to her mind in some way or other. She either must perceive that object, think about the object, imagine the object, desire it, etc. In general, it is plausible that if a subject *S* attends to *o*, then, necessarily, *S* bears some other intentional attitude to *o*. If attention is indeed dependent on other aspects of mentality in this way, then it might seem highly plausible that attending to an already represented object consists in representing the object in some specific way. The proponent of the propositional view would only need to find out what that particular way is. The dependent character of attention, thus, suggests that the propositional view is best developed in terms of attention specific propositions, rather than attention specific attitudes.

Second, we can see a specific advantage of the way of treating attention suggested in the last paragraph, by considering that sometimes a subject's attention seems to be engaged by something that does not exist (we will re-consider this idea later). Think of Macbeth whose mind is drawn to what appears to him to be a dagger there before him. It keeps his attention; he is obsessing about it, while he wonders what "it" may be: "Is this a dagger", he asks, "which I see before me ... or art thou but a dagger of the mind, a false creation, proceeding from the heat-oppressed brain?" While Macbeth is unsure of the ontological category of what captures his attention surely his attention was engaged by *something* (why else would he be so distracted?). While a hallucinating subject thus arguably does not see anything or hear anything (she only seems to see something or seems to hear something), it is hard to deny that she is actually attending to something, or that her attention is actually captured: he does *not* just seem to attend to something or her attention does not just appear to be captured.

The second advantage of the propositional view then is that it has a straightforward explanation of attention in hallucination: the hallucinating subject who attends to some element in the hallucinated scene represents that element in a particular way. Think of Macbeth's hallucinatory experience as the representation of a false

proposition (e.g. that there is a dagger in front of him). If the propositional view were true, then his attending to “the dagger” would consist in the representation of further (plausibly also false) propositions, e.g. that there is a dagger in front of him and *that it is important or salient*. No extraordinary ontological commitments, or other oddities, would follow from the fact that there is something to which the hallucinating subject attends, if the fact that there is something to which she attends *just is* the fact that she bears certain propositional attitudes toward certain contents.

Yet, while a propositional view has these advantages, I believe that it must be rejected. It faces the following serious problems.

First, the propositional view yields *artificial* accuracy conditions. Any propositional content determines conditions for how the world must be. These are the accuracy conditions for an attitude with that propositional content. A belief that grass is green, for example, is accurate only if grass is green. So, if attention just is the bearing of attitudes $A_1 \dots A_N$ to propositions $p_1 \dots p_N$, we can ask whether the world actually is the way $A_1 \dots A_N$ represent it to be.

Suppose, for example, that perceptually attending to some object o just is to have a perceptual representation that represents o as more important, interesting, or salient than other objects. Now we can ask: is o in fact more important, more interesting, or more salient than those other objects? But this question seems misguided. It doesn't seem to be the function of attention to describe the world as being a particular way, and so the imposition of accuracy conditions on attention appears misguided. Note that this observation stands even if – quite plausibly – one accepts that there is a normative failure (things are not as they ought to be) when a subject attends to something that is uninteresting and unimportant for her even at that moment – whether because it captures her attention like the neighbor's loud music or because her mind was wandering. It is true that in those cases, her attention isn't where it ought to be. But this does not mean that her attention is inaccurate with respect to her environment. Unlike in the case of perception where talk of accuracy and inaccuracy is easy to get a grip, in the case of attention the normative failure, if there is one, seems to be prudential impropriety and not inaccuracy.

Of course, with some ingenuity one may associate attention with propositional contents that cannot be inaccurate: one might, for example, suggest that the attended object is represented as attended or as attentionally prominent. If attention represented response-dependent properties of the right kind, then – maybe – attention could never be inaccurate. Yet, such a move is ad hoc and artificial. While color perception clearly seems phenomenally to represent a property instantiated by the surfaces of objects (even if, in the end, colors are response-dependent properties), attention does not seem to represent a property of the objects it is directed towards. It just doesn't seem to make sense to ask whether things are as they are represented to be in our attention. This illustrates that the introduction of accuracy conditions for attention, which every propositional view implies, is indeed artificial.

Second, while there can be no reasonable doubt that attention affects which propositions a subject entertains, it would be a mistake to identify attention with these

effects, since for all propositions it is plausible that a subject may entertain these propositions even without attention. Any effect of attention on the content of perceptual experience for example can be replicated even without attention. Consider, to start, the representation of an object as interesting, important or salient. A subject can clearly represent contents about an object of this type without attending to the object. You might believe that your keys are very important and yet – through a slip of the mind – pay no attention to them when leaving the house. And you might know that something is a salient meeting place, while it fails to capture your attention. The same holds for other content types one might associate with attention. Consider the idea that visual attention to an object consists in a relatively specific or determinate visual representation of that object (Nanay 2011, Stazicker 2011). Objects at the fovea of the eye (the part of the eye with highest resolution) are also represented with a relatively high specificity or determinacy, even when the subject’s visual attention has covertly shifted away from the fovea. And so, visual attention to an object cannot consist in a relatively specific or determinate visual representation of that object.

In response someone might suggest that I may not have considered the right propositions: maybe there is a specific type of importance or a specific type of determinacy distribution that cannot be represented without attention? But the argument generalizes for principled reasons: if attention does not consist in a specific intentional *attitude*, but in the entertaining of a specific set of proposition $p_1 \dots p_N$ (as the view under consideration claims), then $p_1 \dots p_N$ cannot make (implicit) reference to an attention attitude (since there is no such attitude). Now either $p_1 \dots p_N$ specify how things stand in the world aside from the subject who entertains those propositions, or they specify how things stand with the subject herself. But it is implausible that $p_1 \dots p_N$ specify how things stand with the subject herself, since, for example, having one’s attention captured by an explosion does consist in representing how things stand with *oneself*. But if attention were essential to entertaining propositions $p_1 \dots p_N$ about how things stand in the world aside from the subject (without making reference to an attention attitude), then the *subject’s* attention would have to be essential to how things stand in the world *aside* from the subject. And that is highly implausible (a subject’s attention puts no constraints on how the world aside from her must be).¹⁷

Third, even if the last two objections fail, given the large variety of ways a subject’s attention might be engaged and the large variety of potential objects of attention, it appears to be an uphill battle to find any particular set of attitudes and propositions such that *any form* of attention consists in the bearing of these attitudes to those propositions. It will be difficult for the propositional view to explain what a subject whose attention is caught by a loud sound outside, a subject who focuses her visual attention on a grey square, a subject who pays attention to an idea in contemplation, and a subject whose attention wanders again and again to her boss fueling with anger at him, have in common. While there appears to be something in common between all those cases of attention, the similarity does not appear to consist in a specific way of representing the world. While visual attention to the square plausible represents that

¹⁷ For a related and more developed argument see Watzl (2017, Ch. 8).

square with higher spatial resolution and determinacy nothing like such effects on resolution are present in the anger case or the case of contemplative attention. Similarly, for importance and significance for action. The propositional view, thus, cannot make sense of any sense in which attention is a unified phenomenon: it will turn out to be highly disjunctive.

In light of these three difficulties, I conclude that the propositional view fails. Let us also note, though, that the involvement of attention in hallucination and the dependent character of attention made the view plausible. We will return to those issues in the second half of the paper.

2.3 How to develop the non-propositional attitude view

So far, we have seen reasons to think that attention is intentional, and reasons to believe that it cannot be explained in terms of propositional attitudes. Together these two considerations appear to provide a powerful case in support of the view that attention is a non-propositional, intentional attitude, i.e. the NPA view. This view then takes seriously the surface structure of the attention constructions and takes attention to have the logical form '*S As o*', where *S* is the subject, *A* is the non-propositional attitude, and *o* is the intentional object. In this section, I will note some features that the relevant non-propositional attitude should have (which distinguishes it from some non-propositional attitudes, though it arguably shares it with others).

First, some other proposed non-propositional attitudes such as fearing something, searching for something, or desiring something can clearly be intentionally directed at non-existent objects. A child might tremble with fear of ghosts in the castle she is visiting, even though there are no ghosts in that castle. Ponce de Léon might search for the Fountain of Youth even though this Fountain does not exist. And you might want ice cream that isn't cold (because the cold ice cream always hurts your teeth) even though sadly such ice cream does not exist (and maybe is impossible). While, of course, a theoretically satisfactory treatment of such merely intentional objects is not easy, it is highly intuitive that the existence of something does not follow from the fact that people fear it, search for it or want it.

By contrast, attention intuitively does imply that there exists something to which the subject attends. The child's attention cannot be directed toward the ghost she is afraid of, given that there is no such ghost. "It" cannot capture her attention and keep her from sleeping. There may, of course, be something that does capture her attention (the rustling of the wind and the other strange sounds of the nightly castle) and that she mistakes from a ghost. But it is not the ghost. Similarly, while Ponce de Léon's attention may return time and again to the idea of and the image of the Fountain he is searching, it cannot be directed at the Fountain, for there is no such fountain. And while you might think a lot about warm ice cream, for example about whether it is at least metaphysically possible, that ice cream, it seems, given its non-existence cannot be the object of your attention. Finally, while – as I have mentioned – it seems highly plausible that Macbeth's attention is engaged by his hallucination, he cannot

focus is attention on the dagger there before him, for there is no such dagger. It is thus highly plausible that if attention is a non-propositional attitude, then – unlike fear, hope, search and desire – it is existence implying in the following sense: if *S* attends to *o* (or if *S*'s attention is captured by *o*), then there exists something to which *S* attends (or something that captures *S*'s attention). Call this *Existence Implication*.

Some might be inclined to think that existence implication is incompatible with intentionality. For are not intentional attitudes exactly those phenomena that leave open whether their objects exist?

But existence implication is compatible with intentionality. Consider that we cannot conclude from that fact that knowing that *p* is factive that knowledge is not an intentional mental state.¹⁸ From the fact that *some* propositional attitudes may have false propositions as their content, it does not follow that *all* propositional attitudes can have false propositions as content. Similarly, from the fact that *some* non-propositional intentional attitudes can be directed at non-existent objects (such as fearing or liking) it does not follow that *all* non-propositional intentional attitudes can be directed at non-existent objects. Attention seems to be in the same class as seeing or hearing something, knowing something or remembering something. All of these require that there exists something that the subject sees or hears, knows or remembers it. It just does not follow from this that these phenomena are not intentional.

Second, many proposed non-propositional attitudes are directed at their intentional objects under some mode of presentation or under some perspective. Consider that it doesn't follow from the fact that Lois Lane is searching for Superman it she is also searching for Clark Kent, even though Superman is identical to Clark Kent (she may know perfectly well where *Clark* is). And she might love Superman, while there is a clear sense in which she does not love Clark, whom she thinks to be rather clumsy and dull. Many non-propositional attitudes consequently are picked out linguistically by so-called intensional transitive verb phrases, which create referentially opaque contexts, so that it does not follow from that fact that someone *As x* that she also *As y*, even though $x = y$. Plausibly, that is because the relevant attitudes themselves present their object under some mode of presentation.

By contrast, it is plausible that, as Tye (2010, p. 429) observes, that “necessarily, if I attend to *a* and *a* is the same as *b*, then I attend to *b*.” For example, if the detective who arrives at the crime scene focuses her attention on a red spot on the wall, which she believes to be a blood stain caused by a murder, then she focuses her attention on a piece of jam caused by the victim's last breakfast, even though she mistakenly does not take the red spot to be a piece of jam. Similarly, if Lois Lane's attention is captured by Superman's arrival then it is captured by Clark's arrival, even though Lois has no idea that Clark is the same as Superman. For this reason, it seems that a non-propositional attention attitude would not present its object under some mode of presentation. In this rather strong sense, it would seem to be *non-conceptual*.

¹⁸ Williamson 2000.

Against Tye's observation of the non-conceptual character of attention, one might bring up cases where subjects attend to an object only qua X and not qua Y, which may suggest that at least sometimes attention is directed at something only under one mode of presentation. Consider that a young naturalist explorer at the zoo might focus his attention directly on the leg of a stick insect, but not qua leg, but qua its branch-like appearance. Only later does the leg qua leg capture his attention. Similarly, he might pay attention to a specific tree that he doesn't recognize to be a pine tree, but later that tree captures his attention qua pine tree (see Siegel 2010 for related discussion of such examples). Sometimes attention under one aspect rather than another may make an important difference. When the children in Mischel's Marshmallow experiment focused on the Marshmallow qua cloud-shaped white object they were able to delay gratification for much longer than when they focused on the Marshmallow qua yummy edible treat (see Mischel 2014 for a review). Or consider the difference between attending (in thought and emotion) to someone as a locus of intrinsic dignity and worth versus focusing on the same person as an object to be exploited (see Murdoch 1971).

But the non-conceptual character of attention is compatible with these observations. Cases like the stick insect, the pine tree, and the Marshmallow can be treated by drawing more fine-grained distinctions in the objects of the subject's attention, what she attends to, without introducing modes of presentation. Attention, of course, can be directed at material objects, but it can also, and often at the same time, be directed at features. The different children in Mischel's experiments focused on different features of the Marshmallow: some focused at its affective qualities (and consequently, delay of gratification time was short), and some focused at its shape (here the delay of gratification time was much longer). And what did not capture our young naturalist's attention at first was a feature of the object in front him, i.e. it's being a leg. Similarly, for the feature of being a pine tree. Concepts and recognitional capacities can also function as *input* to attention – as attentional tuning devices, as it were: a specific tree (the object) might capture your attention only because you recognize it to be a pine tree. This need not imply that attention itself presents objects under modes of presentation. Some of the other cases need a different treatment: to attend to someone qua locus of intrinsic dignity does not mean that you attend to her dignity: you attend to the person not to a feature of her. Those cases are best treated, by distinguishing different ways of attending, different species of the relevant non-propositional attitude. We need such species in any case in order to distinguish, say, our detective's visual attention to red spot from tactile attention to that spot (by touching it) or intellectual attention to it (by thinking about it). Arguably then to attend to someone qua object of intrinsic worth and dignity is best accounted for as a specific way of attending to her (which plausibly involves your affective and moral attitudes in specific ways).

Overall, then, it seems that the NPA view would be best developed by treating attention as (a) existence implying, (b) non-conceptual, and (c) coming in a number of types or species.

3 Attention as a non-propositional structure

3.1 The Hallucination Problem

So far, all may seem well and good with the NPA view. Yet, I will now pose two problems for the view that together, I believe, undermine its plausibility (they suggest that attention is at least most fundamentally not an mental *attitude*). Both stem from observations I have already made.

The first problem concerns the role of attention in hallucination.

When I motivated the, in the end rejected, propositional view of attention I suggested that it is highly plausible that a hallucinating subject's attention may be genuinely engaged. Macbeth does not just seem to attend, he is attending. Otherwise, for example, it is hard to explain why he is distracted by his hallucination. The claim that there sometimes is perceptual attention in hallucination thus is highly plausible. Call this *Hallucinatory Attention*. The problem is how to combine hallucinatory attention with *Existence Implication*, i.e. the claim that if a subject attends to *o*, then there exists something to which she attends.

A proponent of the NPA view can either deny hallucinatory attention, deny existence implication, or find a plausible way of combining them.

Consider denying hallucinatory attention. Pautz (2010), for example, suggests that we speak of quasi-attending in such cases and model them after the more well known quasi-remembering in cases of inaccurate memory. Just like we cannot remember an event that has not happened, we cannot attend to something that does not exist. But we can quasi-remember a non-existing event, where quasi-remembering is like remembering but without existence implication. Similarly, Macbeth cannot attend to the non-existing dagger, but he can quasi-attend to it.

But there are crucial dis-analogies here. Quasi-remembering a past event is plausibly exhausted by a memory-like representation as of a past event of the relevant type. The subject's memory state represents the world as having been some way, and the world was not that way. It inaccurately represents the past. But if the arguments against the propositional view of attention are correct, then attention does not represent the world as being some way, and we therefore cannot treat quasi-attention as an attention-like way of inaccurately representing the world around the subject. But, as we have seen, it also seems not plausible to treat quasi-attending as merely seeming to attend to something.

Consider the following vignette for illustration. Suppose a patient suffers from chronic tinnitus. She appears to hear a high pitch sound. Let us further suppose that her experience is subjectively indistinguishable from hearing an actual sound in her environment, and that there is no such sound in her environment. The patient comes to her doctor with the following (indeed quite typical) problem:

Tinnitus Patient: Doctor, this sound really distracts me; it captures my attention all the time. I can't concentrate on anything else. How can you help me?

Here is how a doctor may respond:

Doctor X: There is no sound. It seems to you as if there is a sound, but there actually is none. It only seems to you as if you hear something. What captures your attention is just an illusion created by your brain.

Here, though, is how the doctor arguably *cannot* respond:

* Doctor Y: There is no sound. It seems to you as if there is a sound, but there actually is none. It only seems to you as if you hear something. *Your attention isn't actually captured. It just seems to you as if it is captured.*

The patient would rightly complain that her attention is actually drawn away from voice of a conversational partner, or that it is actually occupied. This complaint seems legitimate, even though an analogous claim to the effect that there actually is something the patient hears would not be. But if attention is a non-propositional attitude, then what it means for the subject's attention to be drawn from the voice she is listening to something else just is for her to first bear the relevant non-propositional attitude to the voice of her partner and then to something else. By denying hallucinatory attention, we are denying that the patient's attention is drawn to anything. And that seems very implausible.

How about denying existence implication? To deny existence implication is to hold that a subject might attend to something, even though the object of her attention does not exist, just like the object of fear or a desire – like the ghost in the castle or the impossible warm ice cream – need not exist. If existence implication is denied, then Macbeth is, after all, focusing his attention on a dagger. At the end of the day, I believe that existence implication may indeed have to be given up. But someone proposing this option incurs an obligation to explain the contrast between attention to a non-existing object and, for example, fearing such an object or desiring such an object that I have noted above (p. 12). We are happy to say that the child is afraid of a ghost, even though there is no ghost or that a person desires non-existing warm ice cream, while we are not happy to say that the child focuses her attention on a ghost or on warm ice cream. In the case of fear or desire it seems plausible to think of the intentional object as something like a reflection of the subject's conception of what she is afraid of or what she desires. But, as we have seen attention seems to be non-conceptual in the sense that the object of attention is independent of the subject's conception of it. So, if existence implication is denied we need an explanation of why the object of attention seems independent of our conception of it. It is not clear how the NPA view could construct such an explanation.

How then about accepting the combination of hallucinatory attention and existence implication? A defense could draw on the fact just mentioned, i.e. that what it is that the subject attends to need not correspond to what she takes it to be, or to how it appears to her, or how she conceives of it. This is what we have described as the non-conceptual character of attention. What Macbeth attends to, thus, need not be a dagger. This is how it appears to him, or how he conceives of the object of his attention. But it could in fact be something else; just like what captured the attention of the child in the scary castle was the rustling of the wind, and not a ghost – even though to her it appeared to be a ghost. So, in Macbeth case, what might the object of his attention be?

One option would be to take it to be a mental object. This object need not be a traditional sense-datum, since it need not be how it appears to the hallucinating subject. Nevertheless, many will be suspicious of such mental objects.

A second option would be to treat hallucinations as extreme cases of illusions, where some physical object or event appears to the subject radically differently from the way it actually is. Maybe our tinnitus patient's attention is captured by a brain event that appears to her to be a sound in her environment. One problem for this view might be that *which* brain event the subject is attending to seems radically indeterminate.¹⁹

Another option is to hold that the hallucinating subject's attention is captured by an uninstantiated property complex (see Johnston 2004). The qualities that, were she not hallucinating, would be instantiated by a particular sound or dagger in the case of hallucination are uninstantiated. According to this view the complex of these properties is the object of a hallucinating subject's attention. What the subject takes to be a material object or event in fact is an uninstantiated universal. One problem for this view is that it commits us to a quite substantial metaphysical thesis regarding the existence of Platonic universals *simply* by reflecting on our own psychology. Not anyone will be comfortable with this sort of transcendental argument (for other arguments against it see Pautz 2007).

Some will find one of the options discussed in this section defensible. Still, the first problem for the NPA view is to find a plausible way of treating hallucinatory attention.

¹⁹ I have expressed sympathies with a view like this in my dissertation (Watzl 2010, Ch. 5). It is also defended by Rami El Ali (2014, 2017). In this earlier work I suggested that such indeterminacy is already present in some clear cases of illusion, and hence poses no special problems for the case of hallucination (consider, for example, a case where a complex set of prisms reflect light from 100 different sources such that the subject has the visual appearance of a dagger. In such a case, it seems clear that the subject *sees* something, but which specific thing is it that she sees? The answer seems highly indeterminate).

3.2 The Dependence-Independence Problem

I will now raise a second, and arguably more serious, problem for the NPA view. This problem arises from another issue I have touched on in my discussion of the propositional view. It concerns the dependent character of attention. There is both a certain form of dependence of attention on other intentional attitudes, and a form of independence of other intentional attitudes. How could both of these be true? This is the *Dependence-Independence Problem*.

It is highly plausibly, as I have mentioned on p. 11 above, that a subject cannot *only* focus her attention on some object. Her mind must be directed toward that object also in some other way. In order to focus her attention on an object the subject must, it seems, either perceive the object, have thoughts about it, or feel emotions directed at the object, etc. I believe that we should, thus, accept the following *dependency* claim: if a subject *S* attends to *o*, then, necessarily, *S* bears some other intentional attitude to *o*.

Dependency cries out for explanation. Why is it true? Several explanations are available in principle:

A first explanation for why A might depend on B is that A is identical to B. Attention thus might be identical to another intentional attitude. Pautz (2010), for example, suggests that maybe to focus attention on something just is to *think* about that thing. But it is implausible to think that all forms of, say, *perceptual* attention require thought about that object. This is most obvious for *exogenous* attention (attention capture). A subject whose attention is captured by an explosion need not think about that explosion. Indeed, perceptual attention seems to be generally more primitive than thought. While the latter requires conceptual capacities, the former does not, and arguably explains the ability for thought about an object. It is not identical to it. Perceptual attention thus cannot be identical to thought. But it also cannot be identical to perception. Visually attending to an object cannot just be seeing that object for one might see the object without attending to it. Overall, while attention to an object depends on other intentional attitudes about that object it seems that it cannot just be identical to those attitudes on which it depends. Something is added in attention.

A second explanation for why A might depend on B is that A is one way of being B. If visually attending to something, for example, were a way of seeing that thing, then that would explain dependency. In general, attending could be a specific instance of the attitudes on which it depends. This, in effect, was the way the propositional view explained dependency. It conceived of visual attention, for example, as the visual representation of specific types of propositions. A generalization of this view would treat attention as an adverbial modification of the attitudes on which it depends (see Mole 2011 for another adverbial view of attention).

Yet, the adverbial modification view is also problematic since attention can, as it were, look “inside” the attitudes on which it depends. I will consider the case of cognitive attention for illustration (though a similar case can be made for perceptual

attention). Consider that cognitive attention sometimes shapes *propositional* thought. Sometimes we are thinking or judging *that* something is the case. For example, I might think or judge that Ed wants coffee, that Rousseau was French or that I am going to walk to the office today. When the subject has an occurrent thought or makes an occurrent judgment her attention might be engaged. Yet, the subject's attention might be directed towards only an *aspect* or *part* of the content that she is judging. In language, the phenomenon I am interested in is often expressed as focus marking.²⁰ Here are three examples of pairs of thoughts that differ only in which part of their content is focus marked.

- (8a) You wonder whether Ed wants coffee or tea. You think about it and then come to judge that Ed wants [coffee]_F.
- (8b) You wonder who might want coffee. You think about it and then come to judge that [Ed]_F wants coffee.
- (9a) For a long time you believed that Rousseau was French. Suddenly you realize that Rousseau was [Swiss]_F.
- (9b) For a long time you believed that there were no great Swiss philosophers. You suddenly realize that [Rousseau]_F was Swiss.
- (10a) You've been in the habit of taking public transport to your office. One morning you come up with the brilliant idea that today you are going to [walk]_F to the office.
- (10b) You've been in the habit of taking morning walks to various places in your neighborhood. One morning you come up with the brilliant idea that today you are going walk to the [office]_F.

In these three examples the subject has a certain occurrent thought (she judges something, realizes something or has a certain idea). The truth conditions for the thoughts in each pair are plausibly identical. Yet, there is a difference in the subject's mental life. In (8a) the subject judges that Ed wants coffee and is focused on the fact that he wants coffee (rather than tea), while in (8b) she judges that Ed wants coffee and is focused on the fact that it is Ed who wants coffee (rather than someone else). It is highly plausible that this difference at least partially is a difference in the subject's attention: at least part of what differs between (8a) and (8b) is what the subject attends to.

In these cases, we thus seem to have the same thought but a difference in focus of attention. When you're thinking that Ed wants coffee, your attention might be on Ed or it might be on the coffee (in fact: it can also be on him [wanting]_F the coffee as well).

²⁰ E.g. Rooth 1992.

What we see in this case of cognitive attention thus is that, on the one hand, the operation of attention depends on and hence necessitates the occurrence of certain thoughts. On the other hand, its structure need not match the structure of those thoughts. While the thoughts have propositional structure, attention often picks up on aspects of the contents of those thoughts and not their whole contents. The same, arguably, is true for visual attention. Visual perception presents a complex scene to the subject; it is directed at objects and at the visual properties. But attention is directed only at some aspects of the complex content of visual perception. But if attention picks up aspects of the contents of the attitudes on which it depends, then it cannot just be an adverbial modification of the attitudes on which it depends. While attention depends on other attitudes there can be a mismatch between the structure of attention and the structure of the attitudes on which it depends

There is a third explanation for why A might depend on B. B might be a part of A. If it is impossible to play tennis without moving a racket, then that is because moving a racket is a part of what it is to play tennis. Specifically, the attitudes on which attention depends could be a part of attention. The explanation of dependency would consist in the fact that the mental states on which attention depends are parts of what it is to attend to something.

I believe that this third explanation is the correct explanation. In the next section I will show how it is best spelled out. But in order to have that explanation available to us, we need to move beyond attitudes and their intentional contents and objects. If attention were fully constituted by intentional attitudes, then the only way other attitudes could be a part of attention is if attention were a combination of the attitudes on which it depends. Visual attention to an object would be the mereological sum of seeing that object and some other intentional attitudes. It is hard to see what those other attitudes could be (as we have seen visual attention does not always depend on thought; it is also not plausible to think that it always depends on, say, desire, imagination or emotion). It is thus hard to see how to implement the third type of explanation within a framework of only intentional attitudes.

3.3 The NPS view²¹

The last two sections have raised two problems for the NPA view. The first was the Hallucination Problem: how could attention both imply existence and occur in hallucination? The second was the Dependence-Independence Problem: how could attention depend on other mental states and yet not be reducible to those other mental states?

The best way to solve these problems, I believe, is to give up strong intentionalism that conceived of the mind as a bundle of attitudes. If the mind is a bundle of attitudes then attention must either be an independent attitude or be fully reducible to other

²¹ This section is a very rough sketch of the view I develop in detail in Chapters 2-7 of Watzl (2017). See especially Chapter 4+5.

attitudes. The Dependence-Independence appears to show that this is not possible. But once we give up the bundle of attitudes picture, a solution to the Dependence-Independence problem naturally arises. Strong intentionalism assumes *mental structure monism* (there is exactly one correct partitioning of a subject's mental life into its most fundamental elements, which are attitudes). Instead we should accept *mental structure pluralism* (a subject's mental life can be partitioned along several equally appropriate dimensions). Mental structure pluralism allows us to think of attention as constituted by a special type of structure of the mind that cross-cuts its attitudinal structure. Specifically, I propose that attention is constituted by some parts of the mind being prioritized over other parts. It is this priority structure that constitutes attention. Since the structure that constitutes attention is a structure of intentional attitudes, attention depends on those attitudes. But since the structure is not exhausted by what is structured, attention is not reducible to those intentional attitudes. On the resulting NPS view, attention thus is constituted by a non-propositional structure of the intentional mind.

Let us see how to treat the case discussed in the last section, where you come to think that $[Ed]_F$ wants coffee. Call this mental episode *the Ed episode*. Your intellectual attention is on Ed, and not on him wanting coffee. According to the NPS view, the fact that you are intellectually attending to Ed in this particular case depends on the fact that you are thinking that he wants coffee. It is not an independent attitude added to having a thought with that propositional content. Yet, whether you are attending to Ed is also not fixed by the propositional content of your thought. We can see how both of these could be true, if we allow that the Ed episode can be partitioned in two distinct ways.

First, it can be partitioned into attitude and content. The attitude here is thought and the content is the proposition that Ed wants coffee. This partitioning captures the representational structure of the Ed episode, and hence fixes the conditions under which that episode would be accurate, i.e. just if Ed wants coffee.

Second, it can be partitioned into what is prioritized and what is not prioritized. What is prioritized in your thought is that it is about Ed, and what is not prioritized is that you attribute wanting coffee to him. This priority partitioning is independent of the representational structure of the Ed episode. It is the priority structure that fixes what is attended and what is not.

We can make this more precise as follows.

Let e be the Ed episode. e is a specific mental occurrence or event. Now divide e into two parts, the prioritized part e_{Ed} and the deprioritized part $e_{wantingcoffee}$. e_{Ed} is the part of the Ed episode that makes reference to Ed, and $e_{wantingcoffee}$ is the part that predicates wanting coffee of Ed (though remember that both e_{Ed} and $e_{wantingcoffee}$ are parts of the mental *episode*, not parts of the *content* of that mental episode). What constitutes that our subject is attending to Ed now just is the fact that in e e_{Ed} is prioritized over $e_{wantingcoffee}$. We can capture this structure as follows: let ' $>$ ' stand for the relationship of 'higher priority' between two mental episode parts, where $e_1 > e_2$

just in case e_1 is prioritized over e_2 . The priority structure of the Ed episode then is given by the fact that $e_{Ed} > e_{wantingcoffee}$.

Generally, the attention structure of a mental episode e is given as follows: $[\{e_i\}, e_i > e_j]$, where $\{e_i\}$ is a partitioning of that episode e such that each e_i is a part of e and a structure on that partitioning is provided by the priority relation $>$.

The prioritization thus orders the parts of mental episodes. What is important for present purposes is that which parts of a mental episode are prioritized is largely independent of how that mental episode represents the world to be. And indeed, we would expect such independence, since prioritizing some aspects of a mental representation should not interfere with the accuracy conditions of that mental episode. Two fully accurate representations of how things stand with Ed should be able to differ with respect to whether you are primarily concerned with *Ed* or with the fact that he wants *coffee* (or with the fact that he *wants* it, rather than *hates* it). Attentional priority plays a different role in our mental economy than representational accuracy, and hence we should expect that the representational structure of a mental episode and its attentional structure can vary largely independently of each other.

Mental episodes, on the view I am proposing, thus have a multi-dimensional mereological structure, i.e. the fact that an episode can be partitioned in one way is compatible with the fact that it can also be partitioned in a different way. According to mental structure pluralism, a mental episode thus can have both propositional structure and priority structure. To these correspond two distinct but compatible ways of partitioning the relevant episode. If e is some propositional attitude, we can put this as follows.

$$e = [\{e_i\}, e_i > e_j] = \text{A-ing that } p.$$

The fact that the priority structure of the event of judging, for example, is independent of its propositional structure, thus, should not seduce us into thinking that events of thinking that p can be reduced to non-propositional attitudes such as thinking about something or predicating something of something. We should not think that a mental episode has some parts that are given independently of facts about attention and that these parts then enter into relations of relative priority when the subject attends to something. The relevant parts just are those aspects of a mental episode that can lead to differences in attention (no attention-independent partitioning is presupposed). The elements of the priority structure, like referring to x , or predicating F -ness, etc. are not separable *attitudes*. The subject could not refer to x without thinking some propositional thought about x . The parts that occur in the attention structure of an episode are rather *divisions* within that mental episode, not independent existents.

On the resulting view, we have a straightforward account of why attention comes in different types of species: the different types of attention are distinguished by the elements that are prioritized in the subject's priority structure. What distinguishes different varieties of attention, such as intellectual and perceptual attention is what is prioritized. In the case of perceptual attention, it is a perceptual episode. In the case of intellectual attention, it is a cognitive episode. What both have in common is their

structure. Both perception and cognition may be partitioned and structured by the priority relation. If they are so structured, we have perceptual and intellectual forms of attention.²² The more complex forms of attention that characterized, for example, attention to someone as a locus of worth and dignity may be characterized by priority structures that have, for example, certain affective states in prioritized positions.

The NPS view also solves the problems raised for the NPA view:

The dependence-independence problem consisted in a tension between the following two claims. On the one hand, in order to attend to something a subject must represent the object of her attention in some other way. It is impossible to *just* attend to something. On the other hand, attending to something cannot be reduced to those ways of representing the object. The NPS view solves this problem straightforwardly. Since attention is constituted by a structure of the subject's mental life, there can be no attention without a mental life characterized independently of attention. Since intellectual attention, for example, just is a structure in the subject's cognition, it presupposes cognition. Similarly, since perceptual attention is constituted by a structure in the subject's perceptual state, it presupposes that there are such perceptual states. In this sense, attention thus depends on other aspects of mentality. At the same time the NPS view also explains why attention cannot be reduced to those perceptual or cognitive states on which it depends. Since it is constituted by a structure of the subject's mental life, it is not captured by simply listing the aspects of the mental life that it structures.

The NPS view can also explain how the attention of a hallucinating subject may be engaged: attention is constituted by the fact that some aspects of a mental life are prioritized over others. Given that it is uncontroversial that the mental life of a hallucinating subject exists, there is no difficulty for some parts of that mental life to be prioritized over others. So, the attention of our tinnitus patient is engaged since her auditory experience as of a sound gets involuntarily prioritized over other aspects of her mental life. This, indeed, is a plausible description of what is disturbing for her. While she might want to prioritize thinking about her work, it is her auditory experience that gets actually prioritized. Arguably this is all that we need to account for.

Some may not find that this is not yet completely satisfactory. Don't we also need to explain how the subject's attention can be *directed at* what seems to her a sound in her environment? That is: don't we need to explain that there is some seemingly *external* object that captures her attention?

We can make progress by noting that priority structure in a certain sense creates subject-dependent objects out of the representation of propositional contents. In the priority structure, there will be a part of the tinnitus patient's auditory experience that

²² While attention may come in such distinct intellectual and perceptual forms, this is not an essential part of the structuralist proposal. It is rather an empirical question. Priority structure need not follow the attitudinal contours of a mental life. Maybe a whole mental life at a time has only one priority structure.

is prioritized. That part of her experience moves to top priority in the attention structure. It is uncontroversial that the relevant part of the *experience* exists. Yet, the priority of that part of the subject's experience also marks a part of the *content* of her experience. We can think of that part as the mirror image of the relevant location in the structured experience in the content of that experience. The existence of that "highlighted" part of the content directly depends on the relative priority of a part of the subject's experience. In that sense, it is a mind-dependent object of the relevant experience. The object of hallucinatory attention thus indeed exists, but its existence is entirely dependent on and fully explained by the fact that an episode of hallucinatory attention exists. It is, in that sense, no further fact. The NPS view thus also has an answer to the hallucination problem.

With the foregoing, we can also explain the sense in which attention is non-conceptual. According to the NPS view, the priority structure of a subject's mental life is explanatorily prior to her attention being directed at object's and features in the world around her. What she is attending to is simply a reflection of the mental state that is prioritized. Consider the child in the nightly castle. She hears a certain noise. That auditory state is prioritized. In that auditory state the noise is presented to her as the sounds of a ghost. But, in fact, the auditory state is a perception of the wind. And so what she attends to just is that wind. Now consider Macbeth. Suppose, first, that Macbeth is perceptually attending to a real dagger. That episode consists in having a perceptual experience in which the experience of the dagger is prioritized. Now suppose that Macbeth is hallucinating a dagger in a way that is subjectively indistinguishable from perceptually attending to the real dagger. According to the NPS view he is indeed attending, since some part of her experience is prioritized over the other parts. He is not attending to the dagger, though, since that part of his experience does not refer to the dagger (since there is no such dagger). What he is attending to – in the case of hallucination – is entirely dependent on the existence of her priority structured experience. Generally, what a subject attends to need not be transparent to her or depend on her conception of it, since the character of a mental state that is prioritized (whether it, for example, picks out a dagger) need not be transparent to the subject.

3.4 In what sense, then, is attention intentional?

According to the NPS view attention is not an intentional attitude. In this sense, it is not an intentional phenomenon. What then of the arguments of Section 2.1 that attention is intentional according to both the pragmatic, the phenomenological and the intuitive conceptions of intentionality? What does the NPS view say about the intentional character of attention along these three dimensions? I will take them in reverse order.

First, the NPS view is consistent with the claim that attention is an essential component of a solution to Wu's Many-Many Problem (see p. 8 above). According to the NPS view, attention is constituted by a priority structure within the subject's mental life. The rationalizing explanation of action that is the solution to the Many-

Many problems draw on that priority structure. It is partly with the help of her priority structure that a subject carves out a behavioral path through the way she represents the world. While the details would, of course, need to be developed, a subject's priority structure thus is arguably intimately intertwined with other aspects of her mind that operate together in a rationalizing explanation of action, and thus attention would count as intentional according to the pragmatic conception, even though it is not an intentional attitude.

Second, the phenomenological conception of intentionality conceives of the intentionality of a subject's mental life as her point of view on the world. According to the NPS view, attention contributes to that point of view because it organizes the subject's mental life so that some of its elements are prioritized over others. Attention thus contributes to a subject's perspective by organizing it in terms of what takes priority. The NPS view thus can count attention as intentional according to the phenomenological conception. There is a clear intuitive sense in which two subjects that differ only in their priority structure appear to themselves to inhabit a different sort of universe (cf. James 1890/1981, p. 424), even though they do not take the world to *be* different. They organize the world in a different way.

Third, what about the idea that attention is a paradigmatic intentional relation that "includes" the object of attention within itself? The NPS view can explain why some instances of attention are paradigms of intentional relations even though attention is not an intentional attitude. According to the NPS view, the intentional directedness of attention piggybacks on the intentional directedness of the mental element that is prioritized. Consider the subject who is perceptually attending to an explosion outside her window. According to the NPS view a subject's undergoing that mental episode just is a subject's being in a perceptual state that – among other things – represents that explosion (not necessarily as an explosion) in such a way that the part of that perceptual state that is intentionally directed at the explosion is prioritized over other parts of that perceptual state. The intentional directedness of attention in this case thus is fully explained by the intentional directedness of the relevant perceptual state. Susan Carey was right to hold that *perceptual* attending and perceiving are paradigmatic intentional relations. But there are not two independent intentional relations here, but only one primary one (perceiving) and one (perceptually attending) that has the other as a part. The NPS view thus is consistent with the fact that some instances of attention are paradigms of intentionality. At the same time, it is also consistent with the existence of instances of attention that are not intentional at all: if there are non-intentional mental states (like sensations), thus could also be elements of priority structures. The NPS view is neutral on the question whether there are any such non-intentional elements.

Overall, then, the NPS view rejects strong intentionalism. It is consistent with but does not entail weak intentionalism. And it can explain how attention could be intentional (possibly in all cases) without being an intentional attitude.

4 Conclusion

In this paper, I have discussed two views about attention: a non-propositional attitude view, and a non-propositional structure view. I have shown that the non-propositional attitude view should be taken seriously. Attention is intentional and cannot be fully explained in terms of propositional attitudes. But the non-propositional attitude view also encounters two serious problems. In order to overcome those problems, we should give up the idea that attention is an attitude, and accept the non-propositional structure view instead.

The account of the non-propositional character of attention argued for in this paper shows that strong intentionalism should be rejected. The mind is not a bundle of attitudes, but has a priority structure that cross-cuts its attitudinal structure.

The non-propositional structure view also shows that the non-propositional character of attention is compatible with propositionalism. The view entails that our mind has non-propositionally structured parts, but those non-propositionally structured parts normally are not intentional *attitudes*. The relevant parts may be aspects of a propositional attitude whose existence is fully grounded in propositional attitudes and priority structure. By drawing on such priority structures, the account of attention provided here, thus, may offer resources for how propositionalism treats other alleged non-propositional attitudes.

Bibliography

- Brentano, F. (2014) [1874]. *Psychology from an empirical standpoint*. Routledge.
- Carey, S. (2009). *The origin of concepts*. Oxford University Press.
- Crane, T. (1998). Intentionality as the mark of the mental. In *Contemporary Issues in the Philosophy of Mind*. Cambridge University Press. 229-251.
- Crane, T. (2001). *Elements of Mind: An Introduction to the Philosophy of Mind*. Oxford University Press.
- Crane, T. (2013). *The Objects of Thought*. Oxford University Press
- Dacey-Jennings, C. and Nanay, B. (2014). Action without attention. *Analysis*, advance access, doi:10.1093/analys/anu096
- El Ali, R. (2014). *Illusionism: Making the Problem of Hallucinations Disappear*, PhD Dissertation University of Miami
- Forbes, G. (2006). *Attitude Problems: An Essay on Linguistic Intensionality*. Clarendon Press.

- Forbes, G. (2008). Intensional transitive verbs. In *The Stanford Encyclopedia of Philosophy* (Fall 2013 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/fall2013/entries/intensional-trans-verbs/>
- Gopnik, A. (2009). *The philosophical baby*. London: Bodley Head.
- Grzankowski, A. (2012). Not All Attitudes are Propositional. *European Journal of Philosophy*, <http://dx.doi.org/10.1111/j.1468-0378.2012.00534.x>
- Grzankowski, A. (2013). Non-Propositional Attitudes. *Philosophy Compass* 8 (12):1123-1137.
- Husserl, E. (1982) [1913], *Ideas pertaining to a pure phenomenology and to a phenomenological philosophy*, translated by F. Kersten, Martinus Nijhoff Publishers
- James, W. (1890/1981): *The principles of psychology*, Harvard University Press
- Johnston, M. (2004). The obscure object of hallucination. *Philosophical Studies* 120 (1-3):113-83.
- Kentridge, R. W. (2011). Attention Without Awareness. In C. Mole, D. Smithies and W. Wu (eds.), *Attention: Philosophical and Psychological Essays*. Oxford University Press, 228-246
- Maunsell, J. H., & Treue, S. (2006). Feature-based attention in visual cortex. *Trends in Neurosciences*, 29(6), 317-322.
- Mischel, W. (2014). *The marshmallow test: understanding self-control and how to master it*. Random House.
- Mole, C. (2011). *Attention is Cognitive Unison: An Essay in Philosophical Psychology*. Oxford University Press.
- Moltmann, F. (1997). Intensional verbs and quantifiers. *Natural Language Semantics* 5 (1):1-52.
- Moltmann, F. (2008). Intensional verbs and their intentional objects. *Natural Language Semantics* 16 (3):239-270.
- Montague, M. (2007). Against propositionalism. *Noûs* 41 (3):503–518.
- Murdoch, I. (1971). *The Sovereignty of Good*. Routledge.
- Nanay, B. (2010). Attention and perceptual content. *Analysis* 70 (2):263-270.
- Pautz, A. (2007). Intentionalism and perceptual presence. *Philosophical Perspectives* 21 (1):495-541.
- Pautz, A. (2010). An argument for the intentional view of visual experience. In B. Nanay (ed.), *Perceiving the World*. Oxford University Press.

- Railton, P. (2012). That Obscure Object, Desire. *Proceedings and Addresses of the American Philosophical Association* 86 (2):22-46.
- Rayo, A. (2013). *The Construction of Logical Space*. Oxford University Press.
- Reddy, R. (2008) *How infants know minds*, Harvard University Press
- Rooth, M. (1992). A theory of focus interpretation. *Natural Language Semantics* 1 (1):75-116.
- Sinhababu, N. (forthcoming). Advantages of Propositionalism. *Pacific Philosophical Quarterly*.
- Smith, A. D. (2002). *The Problem of Perception*. Harvard University Press.
- Soteriou, M. (2013). *The Mind's Construction: The Ontology of Mind and Mental Action*. Oup Oxford.
- Stalnaker, R. (1984). *Inquiry*. Cambridge University Press.
- Stazicker, J. (2011). *Attention and the Indeterminacy of Visual Experience*, PhD Dissertation, University of California (Berkeley)
- Tye, M. (2010). Attention, seeing, and change blindness. *Philosophical Issues* 20 (1):410-437.
- Williamson, T. (2000). *Knowledge and its Limits*. Oxford University Press.
- Wright, R. D. and Ward, L. M. (2008): *Orienting of attention*, Oxford University Press
- Wu, W. (2011). Attention as Selection for Action. In C. Mole, D. Smithies and W. Wu (eds.), *Attention: Philosophical and Psychological Essays*. Oxford University Press, 97-116.
- Wu, W. (2011a). Confronting Many-Many Problems: Attention and Agentive Control. *Noûs* 45 (1):50-76.
- Wu, W. (2011b). What is Conscious Attention? *Philosophy and Phenomenological Research* 82 (1):93-120.
- Wu, W (2014). *Attention*. Routledge.
- Watzl, S. (2010). *The Significance of Attention*, PhD Dissertation, Columbia University (New York)
- Watzl, S. (2017). *Structuring Mind. The Nature of Attention and How it Shapes Consciousness*, Oxford University Press
- Yeshurun, Y., and Carrasco, M. (1998). Attention improves or impairs visual performance by enhancing spatial resolution. *Nature*, 396(6706), 72-75.