Phenomenology and Intentionality

On the Direction of Explanation in Conscious Visual States

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Thesis presented for the degree of
MASTER OF PHILOSOPHY

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UNIVERSITY OF OSLO
Spring 2017
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http://www.duo.uio.no
Print: Reprosentralen, University of Oslo
Is this a dagger which I see before me,
The handle toward my hand? Come, let me clutch thee –
I have thee not, and yet I see thee still!
Art thou not, fatal vision, sensible
To feeling as to sight? Or art thou but
A dagger of the mind, a false creation,
Proceeding from the heat-oppresséd brain?
I see thee yet, in form as palpable
As this which now I draw.

(Shakespeare, Macbeth: Act 2, Scene 1)
Abstract

Perhaps the two most important research topics in philosophy of mind today are phenomenal consciousness and intentionality, the central question being how to account for these phenomena in a physical world. Closely connected is the question of whether these two aspects of the mind could be explanatory related. This is the topic of my thesis, and more precisely the question is this: Is there any explanatory relationship holding between the phenomenal properties and the representational properties of conscious visual states?

This question admits of four answers: (1) the two property domains are not two but one (Identity); (2) they are distinct but explanatory independent (Independence); (3) phenomenal properties have explanatory priority (Phenomenology-first); or (4) representational properties have explanatory priority (Intentionality-first). How should we understand (3) and (4), the priority-views? Part of this thesis consists of presenting my preferred way of understanding Phenomenology-first and Intentionality-first. I argue that they are best captured by the grounding notion. Mere modal ideology will not capture the strict metaphysical priority that goes with explanatory priority. We need to invoke hyperintensional notions to understand these views.

The result of my research is the formulation and clarification of what I take to be the best reasons there are for thinking that each of the four possible answers posed above is true. That is, I argue for a number of conditional claims: Which of the positions you should hold, dependent on various other views you might have.
Foreword

Finally, the day has come for me to write this foreword and give credit where credit is due. This thesis is the result of two years’ work at the Department of Philosophy, Classics, History of Art and Ideas, University of Oslo. Working on it has been very rewarding, but at this point I am also happy to see the process come to an end. It will be pleasant to let the thoughts rest for a while from the constant churning over supervenience, visual content and slight phenomenal changes in visual experience. Oh, summer days, come and get me!

Some people deserve special mention here: I want to thank Petter Bogen Sydhagen for the fruitful reading sessions we shared with Sebastian Watzl the first year. I am over my head grateful to Mariona Eiren Bohlin Sturm for reading and commenting on the whole thesis at the very end of the process. I hope to return the favour someday. I am also thankful to Victoria Ydstie Meyer for perceptive comments regarding layout.

A special thank you goes to my family who always support me. Your encouragement and excitement about the project boosted my strength when it was needed. I would like to extend my appreciation to the department who granted me a stipend during the work with this thesis. Without it, the full-time student life would be just a dream.

Last but not least, I want to thank my supervisors. Thanks to Berit Brogaard who entered the stage late but good. It was helpful to have a fresh pair of eyes look over the thesis when the overall structure was in place. And Sebastian, I don’t know how to thank you properly, as your contribution to this thesis can hardly be overstated: You helped me shape the project during the first year. Looking back at that period now, I was a boat astray and you the guiding lighthouse. You always showed an eager and persistent will to comment on and discuss every bit I wrote. In our discussions, you brought me up to your level and made me feel that I had something to contribute to the philosophy of mind. Thank you.

Thanks also to Marit who is warm-hearted.

Max Johannes Kippersund

7th of June, 2017, Oslo
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Introduction

This thesis concerns two intriguing aspects of the mind: phenomenal consciousness and intentionality. Attempts to understand these two features take up a big share of the work done in contemporary philosophy of mind. This is not so strange, as the most fundamental questions regarding these two aspects tickle our curiosity like few others: How can there be subjective experience in a world that appears mainly physical? How can some mental states objectively be about, or represent, other things in the world? The question of this thesis is a related one, but more specific:

The main question: Given that some mental states exhibit both intentional properties and phenomenal properties, is there any interesting explanatory relation holding between these two aspects in those states?

Over the course of this thesis, I will seek to make this question intelligible and to answer it. Directly following is a short guide of how I approach this task, a map of the entire thesis.

0.1 The structure of the thesis

In chapter 1 I present the two most central notions needed in order to understand the main question: phenomenal- and intentional (more specifically representational) properties. I then motivate and state the main question that was previewed above. From a pre-theoretical point of view, this question admits of four satisfactory answers: Identity, Independence, Phenomenology-first and Intentionality-first. The first two positions answer the question negatively, but in two radically different ways. Identity holds that the “two” aspects are not actually two but one, i.e. they are identical. Independence, on the other hand, holds that the two aspects are distinct but explanatory independent of each other. The last two positions answer the question positively and fill up logical space: Phenomenology-first holds that phenomenology enters into the explanation of intentionality, while Intentionality-first holds that intentionality enters into the explanation of phenomenology. The notion of strict metaphysical priority is introduced as a placeholder for whatever substantial metaphysical relation underlies non-causal explanation. The two “priority views” are formulated using this placeholder, a substantial part of the thesis centres around understanding what this relation consists in.

I proceed by restricting the question to only target visual states, to make the task more manageable. This also appears to be the most promising case for answering the question positively; hence it is the most interesting case. The remainder of chapter 1 focuses on explaining and defending a crucial assumption for the rest of this thesis: The Content View. According to this view, perpetual states are characterized (at least in part) by representational properties, a
subspecies of the wider class of intentional properties. I spend some time motivating this view. At the end of the chapter I defend the Content View against a challenge made by Charles Travis.

In *chapter 2* I approach the question of how to think about the *strict metaphysical priority* relation that underlies non-causal explanation. The overall point that is argued for in this chapter is that purely *modal ideology* cannot capture this relation. That is, we cannot simply in terms of *possibility, necessity, impossibility* and the related concepts of *supervenience* and *necessitation* capture the strict priority views singled out above. This point is illustrated most vividly when I review two traditions that appear to capture the two strict priority views: *Representationalism* and the *Phenomenal Intentionality Research Program* (“PIRP”). According to both positions, intentionality and phenomenology are closely related. There is, however, no consensus in the literature on how to understand the main tenets of either one. In the context of this thesis I give both what I call a *minimal meaning*. By this I intend to capture the tenet that all adherents of the two positions ascribe to. The minimal main tenets of Representationalism and PIRP are the following:

**Representationalism**: Phenomenal properties supervene on intentional content.

**Basic PIRP**: Some states (among them visual perceptual states) have *phenomenal intentionality*. Phenomenal intentionality=intentional properties necessitated by phenomenal properties.

It should be clear that Representationalism and PIRP, *prima facie* seems to map onto our pre-theoretical Intentionality-*first* and Phenomenology-*first* views, respectively. However, since they are both defined in purely modal terms, they fail in this respect as I will show. The upshot of studying PIRP and Representationalism, however, is that we learn a great deal about the modal correlation in place between phenomenal properties and representational properties in perception. This is put to use in chapter 4. The result of studying modal correlation in chapter 2 is the formulation of the following thesis:

**The Modal Correlation thesis**: Exactly one of the following is true:

**Modal Independence**: phenomenal properties and representational properties are *modally independent* of each other in conscious visual experience, even when restricting to phenomenally manifest properties (“modally independent” means here that there is no supervenience relation either way).

**Modal Equivalence**: phenomenal properties and representational properties are *modally equivalent* in conscious visual experience, when restricting to phenomenally manifest properties (“modally equivalent” means that there is symmetric supervenience, i.e. a one-to-one correspondence).

Due to the shortcomings of modal ideology, we need to look elsewhere to fully capture the nature of the phenomenology-first and intentionality-first views. The way I see it, these positions should be understood as *grounding* claims. In light of the grounding framework we can reformulate the two priority views accordingly:
**Phenomenal Ground:** the fact that one instantiates a representational property representing phenomenally manifest features when in a conscious visual state is grounded (at least in part) by the fact that one instantiates a phenomenal property when in that same state.

**Intentional Ground:** the fact that one instantiates a phenomenal property when in a visual state is grounded (at least in part) by the fact that one instantiates a representational property when in that same state.

In chapter 3, I elaborate on the notion of ground that has seen a great surge in philosophical interest over the last 25 years. In light of the grounding framework, we should accept that Modal Equivalence (ME, for short) is incompatible with Independence (Ind.), even though this is not a relation of logical entailment. In other words, we have Non-Independence:

**Non-Independence:** ME $\rightarrow \neg$ Ind.

Since Independence together with Identity, Phenomenal Ground and Intentional Ground exhaust logical space (i.e. exactly one of them must be true), this is equivalent to saying that Modal Equivalence leads to one of the latter three. This insight forms the background for the fourth and final chapter. In chapter 4 I turn towards the question of which position we should believe if Modal Equivalence holds. Which of Identity, Phenomenal Ground and Intentional Ground is then true (given ME)? I argue that the answer to this question depends on which of the following four key theses one accepts:

**Unified Representation:** The representational properties are unified across conscious and unconscious visual states. This means that both the following claims are true:

- **UR1:** The representational properties are the same in conscious and unconscious visual states.
- **UR2:** Representational properties have the same ground in conscious and unconscious visual states.

**Fregean Content:** The content of conscious visual states consists in modes of presentation that presents the normal cause of the phenomenal property one is having.

**Establishing Appearance:** Some sound arguments in favour of the view that visual experience is representational have premises about visual phenomenology and are establishing the direction of inference follows the direction of the grounding relation.

**Simplicity:** the value of simplicity outweighs the reasons we have for accepting UR, FC and EA.

That is, given Modal Equivalence and Non-Independence, which position one should adopt is a function of which of these four theses one adopts: Accepting Unified Representation leads to Intentional Ground, accepting Fregean Content or Establishing Appearance leads to Phenomenal Ground (independently of each other) and accepting Simplicity leads to Identity.

This is the main theme of the thesis, “the direction of explanation”. However, there is another, secondary theme, that I also will discuss throughout. This theme is that of reduction. The most obvious question to consider in that respect is whether phenomenal properties reduce to
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intentional properties or vice versa. Still, the most important question within this thesis concerns how we should understand reduction in relation to the four main positions that one can take regarding the direction of explanation. Are, for instance, reduction and the grounding views compatible? According to the view I present in this thesis, reduction is only compatible with Identity. This might seem puzzling at first, since reduction claims are asymmetric, i.e. if phenomenal properties reduce to intentional properties, then intentional properties cannot reduce to phenomenal properties. What explains this asymmetry, I will argue, is a difference in meaning and not in reference. I hope to make clear by the end of this thesis the difference between strict metaphysical priority (grounding) that holds if something metaphysically (non-causally) explains something else, and the epistemological conceptual priority that characterizes reduction.

0.2 Methodological remarks

In this thesis, there is no chapter devoted to methodology alone. This might be surprising if you approach this from outside of philosophy. It is, however, a feature that it shares with many other works of philosophy. It appears to me that there is no clear structure to the methodology in philosophy. Rather, how to approach a question or a problem seems to be more or less implicit within each field. That is also the case with this thesis; I try to approach the problem of explanatory directionality between phenomenology and intentionality in visual states in much the same way as those who have done philosophy of mind before me.

I do not think this means that there is a qualitative gap between philosophy and other sciences; rather I consider the transition to be continuous. If anything interesting can be said about the gradual difference, it is perhaps that moving “away” from other sciences and “towards” philosophy corresponds to a difference in abstraction. I will not defend this claim in this thesis; it takes the place of an assumption and is characteristic of my overall approach. Still, some more specific comments are in order that relates the work done in this thesis to the work done in empirical sciences, especially in psychology and vision science.

The question that concerns me in this thesis is stated above. Over the course of this thesis I attempt to understand and make progress towards answering it. Now, why think this question can be answered within the format of a philosophy thesis? Should we not leave this question to psychology and vision science? Is it not an empirical question? In part this is right. There are several places in this thesis where there are clear contact points between my discussion and empirical science. It is my goal to make clear exactly where those places are. Two clear examples are worth noting already here: one is the discussion of theModal Correlation thesis; the second concerns Unified Representation. The Modal correlation thesis is a claim about how phenomenal properties and representational properties are modally correlated, i.e. which
combinations are possible and which are impossible. We will see that this is connected to empirical considerations both when discussing how attention affects phenomenology and when discussing what I call “Pautz’ empirical argument against Phenomenal Externalism”. As the name suggests, this is an argument that builds on empirical studies. The point that Pautz makes is that one could have different kinds of experiences triggered by the same “normal cause” (this is a theoretical notion that will be introduced later) and that this is supported by explanations within empirical sciences. In short, the faith of Modal Correlation is not something that I take to be independent of empirical considerations.

Unified Representation makes for another contact point with empirical science because it has to do with the assumption that there can be unconscious perception. That there are unconscious visual states is, I gather, the most common view within psychology and philosophy (I will return to this in chapter 4). Unified Representation concerns how to think about the representational properties that characterizes visual states if it is true that there is also unconscious vision. It splits into two conjuncts: If we think representational properties can be the same across conscious and unconscious states, then we accept UR1. If we think the shared representational properties further have the same ground across conscious and unconscious visual states, then we accept UR2. In chapter 4 I argue that accepting both means that a partial version of Intentional Ground is true (given Modal Equivalence). However, whether to accept them is something that to a great extent should be decided by empirical considerations: what are the most fruitful hypotheses and so on.

All in all, I want it to be clear that my work is not in any way presented as a challenge to empirical science. I allow myself to speculate what would be the case if such and so were the case. Sometimes the question of whether such and so is the case is a question that is most naturally dealt with by empirical science. Still, it should be clear for those reading this thesis that there are also a great deal of questions treated in this thesis that are not dealt directly with by science. This is mainly due to the level of abstraction: Most of the time I am discussing themes such as property identity or comparing modal ideology with the notion of ground. These are questions of a very subtle and abstract metaphysical sort. There is no principled reason barring psychologists and vision scientists from engaging with these themes, as there is no qualitative gap between these sorts of questions and more directly empirical questions. However, just as I leave some questions to the scientists, I think it is reasonable that other questions are left for the philosophers. Some questions are better answered by the scientist using her skillset, while the toolkit and skillset of philosophers should make us better equipped for a range of other questions. I hope to live up to this idea throughout the thesis.


1 Phenomenology and intentionality

Phenomenal consciousness and Intentionality are two striking aspects of the mind. This thesis concerns how they are related. In the first half of this chapter I introduce the two notions; I then motivate and present the main research question of the thesis.

Some think that what is characteristic of having a mind is consciousness.¹ In other words, that we have a mind since we are conscious creatures. When we feel pleasure or pain, happiness or sadness, it has a certain phenomenal character, a “what it is like-ness” (Nagel 1974), that mindless things do not have. Much of the discussion in philosophy of mind has been directed towards consciousness understood in this phenomenal sense.²

Many mental states exhibit a distinctive phenomenal character; consider, for example feelings of pain and pleasure. Is the same true for conscious thoughts? Arguably, there is something it is like to consciously think that Obama was the 44th president of the United States. It is controversial, however, whether this phenomenal character is of a distinctive cognitive kind. Some think it is not (Tye 2000; Tye & Wright 2011), while other think we enjoy rich cognitive phenomenology (Horgan & Tienson 2002; Pitt 2004).³ It is an interesting point, however, that across the controversies, most people seem to get a quite robust grip on what is picked out by the term phenomenal character once introduced to it like Thomas Nagel does it: the phenomenal character is what it is like to be in a certain mental state, the intrinsic subjective perspective one enjoys as someone with a conscious mind. If there is a difference in the way it feels for the subject between undergoing two different mental states, then these states differ in their phenomenal character. I think it is clear that having a phenomenal character is to instantiate a certain property. Therefore, to improve on clarity, I will, in the remainder of this thesis, use phenomenal properties in place of talk of phenomenal characters. I assume that the above characterization is enough to fix reference to the set of phenomenal properties.

¹ James Tartaglia characterizes Galen Strawson, John Searle and Colin McGinn as contemporary exponents of this kind of view (Tartaglia 2008:325).
² Importantly there are other concepts of consciousness. I am only concerned here with what we can call phenomenal consciousness, states with a phenomenal character, a “what it is likeness”, a subjective quality and perspective. Other notions of consciousness are notably self-consciousness which picks out the feature of being aware of oneself being conscious, and access consciousness which has to do with one mental state being available, in a special sense, to other conscious mental states. There are also other concepts. It is important to be aware of these different notions of consciousness, though the distinction will not be important in this thesis. See the Stanford Encyclopaedia of Philosophy’s entry on “Consciousness” for an introduction to other notions (van Gluick 2016).
³ Horgan & Tienson and Pitt thinks there is a “proprietary, distinctive and individuative” phenomenology to thinking that p. Tye and Wright denies this, though they grant that conscious thoughts are accompanied by sensory and linguistic phenomenology: one might “hear inner speech” and associate images and other sensory qualities with a certain thought. Pautz 2013b argues that phenomenology might still play a role in determining thought content, even though there might be no distinctive cognitive phenomenology.
Another important feature that mental states can exhibit is what is often called *intentionality*. Intentionality is a feature many mental states have in that they are directed towards something, or about something. My belief that Obama was the 44th president of the United States, for instance, is somehow about Obama. We have a case of one thing in the world objectively being about another thing. If I hope that there will be more snow next winter, for instance, my hope is about snow and next winter, somehow.

Believing and hoping are classic examples of what is called *propositional attitudes*: mental states that are characterized in part by the *attitude* (believing, hoping, wishing, entertaining, etc.), and in parts by the thought content, the *proposition*, that one bears the attitude towards (that Obama is the 44th president, that there will be more snow next winter). Propositions are something that can be true or false depending on how the world is. This means that what propositions are partly consists in giving a condition of satisfaction on the world: If the world satisfies it they are true, accurate or veridical; if not, then they are false, inaccurate or falsidical. Hence, propositions are *representational* in the sense that they “say” something about the world that is truth-evaluable. Propositional attitudes are a subset of what I will call *representational properties*: properties that are characterized by representational manner and content. Propositional attitudes are a subset of this class because attitudes are just a kind of representational manner, and propositions are just a special kind of representational content (or “mental content”, just “content” for short from now on). There are no strong reasons, I think, for drawing a distinction between those representational manners that are attitudes and those that are not. In contrast, the difference between propositions and the wider class of mental content corresponds to an interesting theoretical distinction: while “content” is used for everything that can be true or false, i.e. everything that is representational in the above mentioned sense, “proposition” is exclusively used for *either* only the meaning of sentences or the meaning of sentences as well as the content of mental states that can fully be captured linguistically (see for instance Searle 1983:6). It is important to note that throughout this thesis I will sometimes talk of *having a given content* as a representational property in itself, without regard for representational manner. This only means that there are two levels of grain when representational properties are concerned: (1) distinguishing representational properties in terms of content alone, (2) distinguishing

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4 Franz Brentano is often said to be a classic exponent for this view (see Tartaglia 2008; in that case see Brentano 1874/2002:481). For a more recent approach, see Michael Tye 1995, 2000, Dretske 1995 and Tim Crane 1998.

5 Here I follow Chalmers’ use of words (2010a:342). Alternatively, and following Searle (1983:6), one could call it a “psychological mode”.
representational properties in terms of manner and content. (2) is more fine-grained than (1), i.e. it makes distinctions where the other one does not.⁶

Representational properties are a subclass of intentional properties, and the most important intentional feature discussed in this thesis. However, intentionality does not necessarily involve contents. It seems plausible that there are also object oriented intentional states: I can fear a dog, for instance, or search for the fountain of youth (even if that object does not exist, this is a puzzling feature of intentionality). The dog is the object of my fear, but not the content, as dogs are not truth-evaluable (see Grzankowski 2013 and Montague 2007 for recent work on non-propositional intentionality).

Some have claimed that Intentionality is “the mark of the mental” in the sense that all and only mental states exhibit this feature. At face value, it is hard to see how this can be; does every mental state really have directedness or aboutness? What about the prime examples of conscious states mentioned above: feelings of pain and pleasure? Some work under the assumption that these states also represent the world being a certain way, for instance might a pain be thought of as representing bodily damage (Tye 1995:113; Dretske 1995:102–103), but this is controversial. Also, the claim that nothing else other than mental states displays intentionality can be questioned (see for instance Nes 2008).

Still, it is fair to say that most mental states would be included were we to form the set of all those things exhibiting either phenomenal or intentional properties. The contemporary philosophical discussion of these themes has a long history. And the central question is how to

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⁶ Contents/propositions deserves a more thoroughgoing introduction than what I can give here. Questions concerning platonism about contents, and more generally how contents exist, is for instance something that I have to leave without comment. A more pressing question is whether content and propositions are Fregean, Russelian or sets of possible worlds: These are themes that will come up elsewhere in this thesis, but to gloss the details here we can say that Russelian contents are complexes of worldly constituents (e.g. objects, properties, events etc.). Such a content is true iff the objects or events that are part of the content have the properties that the content “say” they have. Fregean contents are complexes of modes of presentations of those objects (modes of presentation of objects, modes of presentation of properties etc.). Such a proposition is true iff the objects picked out by the modes of presentation in the content have the properties picked out by the modes of presentation in the content. If one construes contents as sets of possible worlds, one identifies the content with those worlds in which it is true. Such a content is true iff the actual world is an element of the content.

These three theories have different virtues and are arguably invoked due to different explanatory purposes. For this reason we should consider them as competing accounts only in a limited degree. Perhaps is it impossible to make every need for contents accord with one privileged theory (see Lewis 1986:54). However, one interesting thing to note is that the three options presented above can be ordered according to “the fineness of grain”, i.e. how many distinctions they can make: Sets of possible worlds are the coarsest grained account since they only make distinctions between contents that possibly differ in truth value. Hence, all necessary truths will be taken to express the same content: the set of all possible worlds. Russelian propositions, however, can make distinctions between such truths if they make reference to distinct objects or properties. Even if two contents are true in exactly the same worlds, the Russelian content can differ if different worldly constituents constitute it. Fregean contents are even finer grained, as they can distinguish between contents that are identical according to the Russelian. This is so because different modes of presentation can pick out the same object, event or property. For a useful introduction to this theme, see the Stanford Encyclopedia of Philosophy’s entry on “Propositions” (Mcgrath 2014).
account for the presence of these phenomena in a natural world: How do we explain that there are subjective phenomenal properties in a world that appears to be thoroughly physical? How do facts about intentionality fit with our best scientific theories? The question of this thesis is one that is related to these projects.

1.1 The main research question
The question that I will be concerned with in this thesis is connected to the project of explaining the presence of both intentionality and phenomenal properties, but in a restricted sense. It is motivated by the following thought: since it is of great philosophical and scientific interest to locate and explain both consciousness and intentionality in the natural world, are there any reasons for thinking that one of these aspects should enter into the account of the other aspect? And it is most precisely formulated as follows: Given that some mental states exhibit both intentional properties and phenomenal properties, is there any interesting explanatory relation holding between these two aspects in those states?

This question concerns what we might call the “direction of explanation”: what explains what? Do we have any reason for thinking that the phenomenal property of a given mental state explains the fact that one has an intentional property when in that same state? Or is rather the phenomenal property explained in some cases by intentional features? First off, what does it mean to say that something explains something else? Usually, both in everyday life and natural science, explanations take the form of causal explanations: the window shattered because the ball hit it and caused it to break. In this case, the relation between cause and effect is one that underlies the true explanation. However, the question posed above is not about the causal relationship between phenomenal properties and representational properties. This is because it only concerns those states that have both phenomenal properties and intentional properties. If one and the same state has these two features, there is no separation in time between one and the other; they are both instantiated at the same time. Causation requires, or so I assume at least, a temporal ordering. Since the case we are considering is not a temporal matter, we can exclude causal explanation already. I think the rationale behind this point will be made clear as we go along. However, if either phenomenal properties explain the presence of intentional properties or vice versa, then it is clear that these two aspects must be related in a metaphysically substantial way. It will be clearer later how we should think of this relation, but let us for now just give it a nametag and pre-theoretically call it strict metaphysical priority.

Pre-theoretically, as noted in the introduction, there are four broad positions one could take in answering our main question: Two answering it negatively and two answering it affirmatively. Firstly, there is the possibility that phenomenal and intentional properties are not
actually two distinct aspects of a given mental state, but the same. That is, they are identical. This is a negative answer since it is clear that nothing can have strict metaphysical priority over itself, i.e. nothing can explain itself. I call this position Identity. Given that the two properties actually are distinct, there is the possibility that neither phenomenal properties nor intentional properties have strict metaphysical priority over the other; they are in a sense explanatory independent. This is the other negative answer, and I call it Independence. Two positive views remain: one option is that intentional properties have strict metaphysical priority over phenomenal properties. The last possibility would be that this is the other way around: Phenomenal properties have strict metaphysical priority over intentional properties. I will call the two last options the Intentionality-first view and the Phenomenology-first view, respectively.

For the time being these two “strict-priority” views are only characterized pre-theoretically as holding that one of the two properties under discussion have the kind of priority that underlies true non-causal explanation. A substantial part of this thesis, however, goes into clarifying exactly what this relation is. This is needed simply to understand the question. I argue throughout chapter 2 and 3 that the metaphysical notion of grounding is what fills this role. In order to answer the question stated above satisfactorily we have to decide on which of the positions presented here to support: Independence, Identity, or one of the two strict-priority views. Nothing more and nothing less is required. I argue in chapter 4 for a series of conditional claims: which positions you should hold are dependent on various other views you might have.

1.1.1 Restriction to visual experience

There is one last qualification to be made in order to understand the direction of the following investigation, and this has to do with scope. I do not undertake in this thesis to consider the direction of explanation in all mental states that have both phenomenology and intentionality. Rather, I consider only conscious visual states. I do this mainly because of pragmatic considerations: this makes the task more manageable. I also think the restriction is justifiable on the grounds that investigating visual states are by far the best candidate for answering our question positively, hence it appears to be the most interesting case. This is because the domain of visual states appears, pre-theoretically at least, to be the clearest intersection between states that exhibit intentional properties and those with phenomenal properties: there is a what it is like-
ness to visually experience colours, shapes and so on. It is also directed towards something, namely the objects and properties being seen.

There are of course those having doubts about visual states being a clear intersection between phenomenal and intentional states. The reason is that many philosophers think there can be unconscious perception. I leave this issue aside in the beginnings of this thesis, but will return to it in the final chapter. There I argue that if there is unconscious perception, and the representational properties in both conscious and unconscious states are unified (in a specific sense), then this can support the strict intentionality-first view. Until I reach this point, however, I will only discuss conscious visual states. I will use “visual state”, “visual experience” and their cognates as shorthand, omitting the “conscious” qualifier.

One could also make trouble for the assumption that visual states form a clear intersection between the intentional and phenomenal by questioning whether perception has intentionality. But is this plausible? If one takes “intentional properties” in the widest sense, including representational properties, object-oriented properties and all kinds of “aboutness properties”, then most philosophers will accept this characterization of visual states. However, in chapter 2, 3 and 4 I will assume not only that visual states have intentional properties, but more specifically that they have representational properties. I call this the Content View from now on, following Siegel (2011). This view is stronger, and hence more controversial.

The Content View is not, importantly, the same as holding that visual experiences consist solely in representing a given content. That is a much stronger view equating having a visual experience with instantiating a representational property. This would actually be what I have called Identity (it is called the Strong Content View in Siegel 2011). According to the Content View, phenomenal properties and representational properties both characterize visual experiences and they might perfectly well be distinct. Since this view serves as a backdrop for the discussion that follows, it needs an introduction. We need an understanding of what it means to say that a visual experience has content, this is not part of ordinary language. I provide this in the next section.

1.2 Do visual experiences have content?

In this section I will provide an understanding of the Content View through a partial defence. I will do this by showing how contents of visual experience are invoked to fill especially two explanatory roles. The way I develop this below, these explanatory roles do not only teach us that experiences have contents, but also which contents plausibly can be assigned to a given

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8 Some Raw Feels theorists might contest this point (Davidson 1986 might be an example, see fn. 10). Also, some versions of Adverbialism, does not cohere well with the notion of intentionality or directedness (see Fish 2010 for an introduction). I will, however, leave this issue aside here.
experience. After this, I consider briefly the relationship between the Content View and various other accounts of visual experience; most notably what is called Naïve Realism. In the end, I consider an argument made against the view stemming from Charles Travis.

There is a whole range of explanatory roles one could bring forward when motivating the Content View, but here I will focus on two: (1) explanation of the content of cognitive states based on experience, (2) explanation of “accuracy intuitions”. These are the most important for my purposes in this thesis.

Why hold (1), that the contents or representational properties of perception can explain the content of cognitive states based on experience? Arguably this is something that any successful theory should be able to explain; the mere presence of a range of representational mental states causally down stream of perception should somehow be explained by the perceptual states. Speaking figuratively, they seem to be “sparked” by perceptual contact with the environment. If we assume that cognitive states have contents – this is a common assumption in most theories of propositional attitudes – then there seems to be explanatory benefits of also letting perceptual states have content. Adopting the Content View would bring with it the possibility of explaining representational states based on perception by simply pointing out that we can form beliefs about objects and properties in our environment by “endorsing the content of experience”, as one says. One variation of this theme is an argument run by Pautz (2008, 2010) to the effect that an experience as of, say, colours and shapes necessarily grounds the ability to have relevant thoughts about those properties. The best explanation of this fact, he claims, is that the perceptual experience has content in which the relevant colours and shapes figures.

Susanna Schellenberg mentions six other explanatory virtues she thinks come with the idea that experiences have contents. Following her, contents can account for: the world seeming a certain way to us, the fact that our environment can be and fail to be as it seems to us, the fineness of grain of experience, how we can remember past experiences, to account for the phenomenology of illusions and hallucinations and finally the phenomenal effects of cognitive penetration (Schellenberg 2011:718–719).

Apart from facilitating an explanation of representational states based on perception, a notable idea in the literature is that the content of perception also helps explaining how perception can form justification for perceptually based beliefs. The idea is that only contentful states can serve as justification for other contentful states. This idea was often strengthened to the point where only states with conceptual content could fill the role as justification for beliefs. This made for a tactical divide: Donald Davidson argued that experience could not justify belief since experience did not have conceptual content:

The relation between a sensation and a belief cannot be logical, since sensations are not beliefs or other propositional attitudes. What then is the relation? The answer is, I think, obvious: the relation is causal. Sensations cause some beliefs and in this sense are the basis or ground of those beliefs. But a causal explanation of a belief does not show how or why the belief is justified (Davidson 1986:311).

McDowell and Brewer, on the other hand, argued that perception had conceptual content since arguably perception does deliver justification of empirical beliefs. As McDowell puts it: “The view I am recommending is that even though the experience is passive, it draws into operation capacities that genuinely belong to spontaneity [that is concepts, my remark]” (1994a:13). See also Brewer 2005 for a similar idea. Notably though, both McDowell and Brewer have changed their minds. Brewer endorses a version of disjunctivism, or naïve realism, where it is not true
Moving to (2), why hold that the Content View can explain “accuracy intuitions”? What does “accuracy intuitions” even mean? This explanatory role builds on the observation that we naturally sort experiences into categories such as accurate and inaccurate (veridical/falsidical): when I have an experience as of a black coffee mug in front of me, I would judge this experience inaccurate if I were to learn that there actually was no mug in front of me, similarly if it was blue and not black. If the situation were perfectly normal, however, with a black mug in front of me and everything else being as they seem, I would judge my experience accurate. Macbeth’s visual experience as of a dagger is inaccurate, as he is hallucinating; it would be accurate only if there actually were a dagger before him. Let us call intuitions about where to sort a given experience with respect to accuracy – accurate or inaccurate – relative to a situation in which it is had, for “accuracy intuitions”. If we accept the fact that we share an important base of accuracy intuitions, i.e. that people mostly agree when sorting experiences as either accurate or inaccurate, then this leads us directly to the Content View. This is because of the following short argument:

1. We share an important base of accuracy intuitions.
2. If we share an important base of accuracy intuitions, then visual experiences are accurate and inaccurate.
3. If visual experiences are accurate and inaccurate, then they have accuracy conditions, i.e. conditions under which the experience is accurate.
4. Hence, visual perceptual experiences have accuracy conditions.

The argument presented here is an adapted version of Siegel’s “Argument from Accuracy” (2011:35). What makes premise 2 plausible? The idea behind the consequent of this conditional is that this would be the best explanation of why we share an important base of accuracy intuitions: We do so because perceptual states are objectively accurate and inaccurate and we are able to reliably track these properties in our judgments. Given this, it is no mystery why we would come to share intuitions about them. Premise 3, I take it, is less controversial than (1) and (2): If something is objectively accurate or inaccurate, then it is so in relation to something else. The that perception has content at all (Brewer 2006). It is not clear to me how to properly characterize the later view of McDowell, but in contrast to his earlier view, he does not believe that perceptual content is propositional, i.e. the same as belief content. Rather, he takes the content to be intuitional in a Kantian sense, further, he thinks Brewer and Travis (2004) is mistaken in thinking that such a view would not make the subject “directly” aware of the objects seen (see McDowell 2009).

11 Siegel’s “Argument from Accuracy” goes as follows:

Premise 1: All experiences are accurate or inaccurate.
Premise 2: If all experiences are accurate or inaccurate, then all experiences have accuracy conditions.
Conclusion: All experiences have accuracy conditions. (Siegel 2011:34)

Where does the accuracy intuitions enter in this argument? They enter into an argument that concludes with premise 1. As Siegel points out, the best explanation of our classifications of experiences paired with the situation in which they are had is that the experiences are accurate or inaccurate (Siegel 2011:35).
shot of an archer for instance, cannot be accurate simpliciter, one must assess it relative to the target. In the case of visual experience, accuracy is something that is relative to the situation in which it is had. Further, if an experience is accurate or inaccurate relative to how the world is, then there must be conditions under which it is accurate. This gives us premise 3. Now, one might ask how the argument above gives us the Content View, how do we get from accuracy conditions to content? Actually, there is no step required here. Remember that what contents are consists in part of giving a condition of satisfaction on the world. Accuracy conditions are representational in this sense, they “say” something about the world that can be more or less accurate, more or less true. That accuracy conditions make up visual contents is a widespread idea (see for instance Siegel 2011:30–33; Burge 2010:379; Chalmers 2010b:382).

I think the argument given above is the most direct way of motivating the Content View. Siegel finds this argument in the end deficient and moves to another argument that establishes the Content View (the Argument from Appearing). However, as I will show soon, I think we can put her worries aside and accept the Argument from Accuracy as it is presented above. The Argument from Appearing will be important in chapter 4, but there for other reasons.

1.2.1 Content assignments

If we accept the argument given above to the effect that visual perceptual experiences have contents, then this gives us also an effective tool for assessing content assignments. That is, with the Argument from Accuracy in place we know not only that an experience has content, but also which content it plausibly has. This is because we can use the accuracy intuitions straightforwardly to extract accuracy conditions. Let me elaborate.

Given the argument above, contents explain accuracy intuitions and the fact that we share an important base of these. Hence, the content assigned to an experience should be that content which can explain the most of these intuitions: If we judge that a given experience is inaccurate in the situation in which it is had, but accurate when evaluated relative to a slightly different counterfactual scenario, then we want the content of the experience to explain this. Such an explanation would refer to the truth and falsity of the content relative to the situation. Here is a possible example: I judge that my experience of this cup in front of me is inaccurate since it appears blue to me while it actually is black. If the content of this experience is there is a blue cup in front of me, then this explains why it is inaccurate, since this content is false. I would judge the experience to be accurate in a different situation where the cup that causes my experience actually were blue. What explains the difference is that in this situation, the content is true. Hence, content ascriptions should be measured in terms of how much they can explain: the more explanatory power, the better.
In order to know which content has most explanatory power, we cannot consider an experience paired up with a single situation. Rather we need to consider the experience in a range of different counterfactual situations, situations in which all relevant parameters of the environment are changed independently (similar ideas are present in Siegel 2011: chapter 2). In other words, we need to do counterfactual thought experiments: Given a description of an experience in a situation and our judgement about accuracy, we should slightly change an aspect of the situation and observe whether our judgement is changed in any way, i.e. if what we changed was accuracy sensitive. If the judgment varies with for instance the colour of the cup, then colour is represented: Let us say that a given experience is judged accurate only if the colour of the cup in the given situation is blue, then the content involves blueness. If, alternatively, it is judged as accurate only if the colour is blue, black, dark grey or dark purple, for instance, we might infer that the colour property represented is less determinate, only a darkish colour, say. Since Macbeth’s experience would be accurate only if there was a dagger before him, it represents there being a dagger there. It is important to note that when doing this kind of thought experimentation, we are evaluating this counterfactually, that is, we are imagining the situation in which that very experience had, being different.

1.2.1.1 The structure of visual content

Given this initial characterization of content assignments, what could be said more generally about the contents of experience? I argue briefly in this section that we should not think of accuracy in a way that presupposes that phenomenal duplicates share all accuracy conditions. We should work with a notion of accuracy that does not prejudge against the view that phenomenal duplicates can have different contents.

What is it that enters into the accuracy conditions of visual experiences? First of all, it is natural to take the qualitative layout of the scene, i.e. the properties one is in contact with, to be relevant for the accuracy conditions of visual experience. Visual experiences present us with things as having properties: we see colours, shapes, movement etc. Which properties enter into the content of experience is not something that I take a strong position on in this thesis, though it is a question that will be relevant throughout our discussion. However, there is one more general question that is important to mention here that concerns how properties enter into

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12 Is this problematic, does it makes sense to think counterfactually de re of an experience had in a different situation? Adam Pautz appears to think that this cannot be done because experiences are particulars not present in other possible worlds (Pautz 2009:487). However, I am not sure that we should actually accept this, since it seems to rely on a Lewisian (David, not C. I.) metaphysics of possibility: if Modal realism is true, then it is strictly speaking true that this very experience, cannot exist in other possible worlds. However, abandoning Lewis’ metaphysics of modality would arguably allow for thinking de re of the experience in other possible worlds. I will allow myself to think like this in the following.
contents: Do properties enter visual content directly as constituents, or indirectly via a mode of presentation? The first option corresponds to the Russelian account of content, the latter to the Fregean (cf. the presentation of these alternatives in fn. 6). We will see later that the choice between these two accounts has a direct bearing on our main question. Since this issue will be discussed more thoroughly later, I will leave it for now.

The next important question to consider is whether objects enter into the content of experience: When perceiving the computer that I write this thesis on, does the computer itself enter into the accuracy conditions of my experience? That is, is it part of my visual content that it is that very thing that I am seeing? Or is the content devoid of any particularity in this sense and only concerned with the properties my computer appears to have? One relevant example to consider here is the case in which someone undergoes a hallucination that happens to “match” the scene in front of the subject’s eyes. Consider this example due to Grice:

[… it is logically conceivable that there should be some method by which an expert could make it look to X as if there were a clock on the shelf on occasions when the shelf was empty: there might be some apparatus […] If such a treatment were applied to X on an occasion when there actually was a clock on the shelf, […] then I think we should be inclined to say that X did not see the clock that was before his eyes, just because we should regard the clock as playing no part in the origination of his impression. (Grice 1989:238)

Cases like this are discussed repeatedly in the literature (see Lewis 1980 for a whole range of variations over this theme) and they are sometimes called “veridical hallucinations”. When describing them as veridical, this suggests that even though the experience is not perfectly successful, the content of the experience is still true. This would further suggest that accuracy conditions are not particular, i.e. object involving. However, some philosophers object to this use of “veridical” and ”accurate” (Soteriou 2000; Burge 2010:382; see also Siegel 2011:35–38 and Tye 2009: chapter 4, for relevant discussions). They take completely accurate content to be incompatible with hallucinations altogether.

I think some of the motivations for the idea that visual content is not object involving stems from the idea that visual content should only capture what is presented in phenomenology. Which means that phenomenal duplicates (i.e. experiences with identical phenomenology) cannot possibly differ in content. This reasoning is present in this passage by McGinn: “[…] the content of experience is not to be specified by using any terms that refer to the object of experience, on pain of denying that distinct objects can seem precisely the same.” (1998:51).

We will see later that the idea that phenomenal duplicates share some content is a prominent idea in the literature. However, we should be suspicious of the principle implicit in

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13 In hallucination one is not suitably related to any individual that can enter into the content of the experience.
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McGinn’s reasoning to the effect that phenomenal duplicates share all content. As we will see, there are strong reasons for thinking that the content of visual experience involves objects (section 2.2.2) and other elements that do not affect phenomenology. Bearing this in mind, we should not prejudge the issue and just assume that phenomenal duplicates share all content. It is a possibility that all visual content is what David Chalmers calls phenomenal content, but a greater range of theoretical considerations than given at this point should decide this. In the following I use “accuracy” in a sense that does not rule out object involving contents.

1.2.2 Siegel’s problem with the Argument from Accuracy

The main argument for the existence of contents was an adapted version of the Argument from Accuracy due to Susanna Siegel. I mentioned earlier that she finds this argument to be flawed, however. The flaw Siegel sees in this argument is that it does not, according to her, connect accuracy conditions with content that is conveyed to the subject (Siegel 2011:43). I will in this section show how I think this problem can be screened off.

First of all, it is not clear what is meant by “conveyed”. There are, the way I see it, only two plausible concept candidates. First, there is the idea that something is conveyed through phenomenology. This means that something being conveyed should be “noticeable” to me: If the content of experience is conveyed in this sense, we should expect every difference in content to correspond to a difference in phenomenal properties. Call this concept phenomenal conveying.

Now, if we require that visual content should be phenomenally conveyed in this sense, then it is a direct consequence that the contents of perception should be phenomenal content in the sense that Chalmers uses it. I have already argued that we should not make this a matter of definition; hence if this is Siegel’s point it should be rejected.

The second concept Siegel might have in mind is tied to the idea that only information of a special sort is gathered from perception. Specifically, only empirical information can enter visual content. If we end up assigning contents that involve non-empirical information, then this is objectionable on the grounds that this sort of information is not plausibly conveyed to the subject in perception. Call this concept empirical conveying. I think this is perhaps the most plausible reading of “conveyed” in Siegel’s writing (see 2011:43–44). If this is the intended reading, then I think Siegel is right in holding empirical conveying as a necessary requirement on visual content. However, it is not so clear that it threatens the Argument from Accuracy.

14 Chalmers defines the notion of phenomenal content accordingly: “A representational content C of a perceptual experience E is a phenomenal content if and only if, necessarily, any experience with the phenomenal properties of E has representational content C.” (2010b:383).
One reason Siegel might have for thinking this is a threat could be that she thinks mathematical facts (and other necessary truths) would enter into content assignments. This would be objectionable since this is not empirical information. But how exactly does mathematical facts enter content assignments? The idea seems to be that the accuracy conditions of a given experience include everything that is true in every counterfactual situation where the experience is judged as accurate. If that was the right method of assigning contents, then it is true that we would have to assign such contents as being such that \(2+2=4\) to every visual state. However, the way I developed the method of assigning contents above does not make this obligatory. On this approach, we should only include in the content those elements that exhibit accuracy sensitivity, i.e. those elements which, when changed in counterfactual scenarios, alter our accuracy intuitions. This helps rule out all necessary truths: clearly they cannot change and hence cannot exhibit accuracy sensitivity (the counterfactual question “would \(e\) be accurate or inaccurate if it was had in a situation in which \(2+2=3\)?”, makes no sense).

However, there is one challenge left, one that Siegel also has in mind when dispensing of the Argument from Accuracy. This is the problem of representing accuracy in itself: If we include in the description of a counterfactual situation the very fact that the experience is accurate, then this is of course a parameter of the situation that exhibits accuracy sensitivity. If we now include in the content of an experience the fact that the experience is accurate, then this kind of content is not plausibly conveyed (empirically) to the subject.

This is a problem, but I think there is an attractive solution. The solution I will propose builds on the idea that the reason why accuracy itself exhibits accuracy sensitivity is derivative of other features of the environment. This means that we cannot describe two situations, both featuring \(e\), that is qualitatively identical in every respect except that in one situation \(e\) is accurate and in another \(e\) is inaccurate. I think this leads to the following principle: For \(e\) to be accurate with respect to a situation \(S_1\) and inaccurate with respect to another situation \(S_2\), there has to be a difference between \(S_1\) and \(S_2\) that is suited for being included in the content of an experience, i.e. it can be empirically conveyed to the subject. If this principle regulates our intuitions about accuracy, then we can have the following solution: For every content which includes elements that are non-empirically conveyed but still exhibits accuracy sensitivity, there is a content that does not feature those elements which is equivalent in terms of explanatory power. This means that we do not get more explanatory power from including in the content of an experience that it is accurate. Further, the content that does not contain the objectionable element would arguably be simpler than the objectionable one; after all it includes one less element. Now, given that
simplicity has real theoretical value, this suggests that we should prefer the simple content over the complicated one, as they have equivalent explanatory power.

Siegel dismissed the Argument from Accuracy because she thought it allowed for content that was not conveyed to the subject. I argued above that if she by “conveyed” means phenomenally conveyed, then this was nothing to worry about. If she however means empirically conveyed, then her worries should also be our worries. The Argument from Accuracy does in fact seem to give us objectionable content assignments, due to the fact that necessary truths and that this experience is accurate\(^{15}\) seems to enter into the content of every experience. However, I have here provided reasons for thinking that these threats are screened off. This fixes, I think, the flaws Siegel found in her Argument from Accuracy.

### 1.2.3 The Content View and Naïve Realism

As presented above, we should adopt the Content View since this best explains the fact that we sort experiences into categories such as accurate and inaccurate (veridical/falsidical) and the fact that experiences enable the thoughts they do. Further, we can use these two explanatory roles to also target what content comes with which visual experience.

The Content View is classically opposed to a range of other accounts of perception. First and foremost, it breaks with those accounts that take visual experience to be devoid of any intentionality, such as a Raw Feels views. According to such views, visual experiences are mere raw feels without any bearing on how the world actually is. It is difficult to see how this view could make sense of the fact that we form beliefs and get knowledge about properties and objects in our environment through perception (cf. fn. 10). The Content View also rules out (some versions of)\(^{16}\) what is called the Sense Datum view (Russell 1912), according to which visual experience consists in being related to mental objects, sense data, instantiating all and only the properties that we apparently face in experience. This theory is in part motivated by the fact that we appear to be presented with objects and properties also in hallucination (see Fish 2010 for an introduction). However, in more recent debates, the most prominent challenge to the Content View appears to come from Naïve Realism (also called “Direct Realism”). According to this

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\(^{15}\) Even if we can rule out being accurate from the content of visual states, there could be an analogous problem with “perceptual contact”; i.e. having perceptual contact is accuracy sensitive under some conceptions of accuracy. If so, it would be more difficult to screen off. However, if one requires that perceptual content is singular in veridical perception (see section 2.2.2), then it seems like one must have perceptual contact in order to have singular content. Hence, the requirement that completely successful perceptions have singular content could screen off perceptual contact from entering into content. Alternatively, if one takes visual content to be purely general, one could perhaps include having perceptual contact in the content. This would apparently require visual content to be self-referential, but perhaps this is not objectionable. Searle takes perceptual contact to enter into visual content (1983:48).

\(^{16}\) Siegel thinks the Content View is compatible with some versions of the Sense Datum view (2011:71–72).
view, successful perception consists in being directly related to objects and properties in the environment. The individuals and properties that a subject sees are taken to constitute the phenomenal property of the experience (Campbell 2002; Martin 2004).

Now, there appears to be a tension between Naïve Realism and Content View, but is there actually one? It should be clear that most Naïve Realists answer this question affirmatively. They take Naïve Realism to directly challenge the Content View (see Nanay 2010b:8 for an overview). Siegel has, however, argued that there is no real conflict here (2011; see also Logue 2014). This is because the Naïve Realist analysis of experience still makes experiences come out as accurate in relation to the situation in which they are had, according to her. Hence, they will also have content on the Content View developed here. This holds for what Siegel calls “Standard Naïve Realism” according to which one is directly related to both properties and individuals, but not for “Radical Naïve Realism” according to which we are only related to individuals. Radical Naïve Realism is truly incompatible with the Content View (Siegel 2011:65–70). Siegel mentions Travis (2004) and Brewer (2006) as exponents of Radical Naïve Realism.

Still, there is strictly speaking a tension between Standard Naïve Realism and the Strong Content View (Identity) mentioned earlier, since both accounts take a stance on what the fundamental structure of visual experience are. Siegel agrees with this point, but think the difference is not as philosophically important as it is sometimes presented:

> Given this difference between the structures posited by Naïve Realism and the Strong Content View, one might think that these views are incompatible. But this claim is an overgeneralization, and the difference in the structures per se is of little philosophical interest. (Siegel 2011:73)

The take-home message from this discussion is that the Content View rules out some accounts of visual experience: the Raw Feels theories and the Sense Datum view. Most Naïve Realists will also consider the Content View as a direct competitor, but it is not so clear that this is a real tension (at least on some versions of Naïve Realism). I will let this issue rest here, Naïve Realism will not figure in the discussion that follows.

Travis is, as already mentioned, one of the proponents of a Radical Naïve Realist view, one that is clearly incompatible with the Content View. In the next section I consider Travis’ main objection to the Content View and how I think it fails to do damage to the version I have presented here. The proceeding section ends my initial characterization of the Content View and thereby the first chapter as well.

### 1.2.4 Travis’ objection to the Content View

In his 2004 paper “The Silence of the Senses”, Charles Travis argues against the view that experiences have contents. His argument is not easily extracted, but with careful reading and
some help from Keith Wilson’s careful examination (forthcoming), I will present what I take to be the core claim of this objection, and how I think it fails to do damage to the way the Content View was defended above. Notably, there are other views on what the core of Travis’ argument is, I will not treat them here, but for further reference see Brogaard 2015.

Travis criticises the view that perception has content, or that perception is representational. He describes his target as being committed to these four tenets (his words):

1. The representation in question consists in representing things as so (thus, truly/veridically, or falsely/non-veridically).
2. It has, or gives perceptual experience a face value, at which it can be taken or declined (or discounted).
3. It is not autorepresentation. (It is allorepresentation, though here, not crucially).
4. Where we are thus represented to, we can recognize that, and how, this is so; most pertinently, we can appreciate what is thus represented to us as so. Provisionally, I suppose it is (in some sense) the way things look that lets us do that. (Travis 2004:63).

It is the fourth point that plays the most crucial role in Travis’ argument. This point says in effect that the content of an experience should be recognizable by the subject. This is further due to experiences being “looks indexed” (a term to be explained soon) according to Travis. However, as he argues, experiences cannot be looks indexed in the relevant sense, and hence tenet four fails. I take this to be the core of Travis’ objection to the Content View.

“Look indexing” means to index something by the way things look to the subject, and if contents are looks indexed, then something looking thus and so to the subject should determine content (Travis 2004:71). This means simply that there should be a function from “looks” to content, i.e. given a look we know the content. How precisely are we to understand the notion of looks? Travis thinks there are two notions in the vicinity.

The first (which Wilson calls “visual looks”) has to do with how things visually appear. Travis exemplifies this with the idea that “Pia may look (rather, very much, exactly) like (the spitting image of) her sister.” (Travis 2004:70). So, if something shares the objective qualities that generates the same kind of appearance, they share a visual look, following Wilson’s clarification (Wilson forthcoming:15). From this I think it is clear that we should understand the notion of “visual looks” as closely connected with that of a “phenomenal duplicate”: experiencing two things that share a visual look means that the two experiences share phenomenology. But how does look indexing, on this conception, determine content? This is what Travis says:

In looking like her sister Pia shares a look with countless other things – herself, a wax replica of herself in Madame Tussaud’s, a good hologram, an actress made up to play the role of her, a Pia-clone, and so on ad infinitum. For each of these, there is a way things should be to be what they thus look like: Pia should be, respectively, herself, her sister, a wax dummy, a hologram, an actress, a clone, and so on. An experience that represented all that as so would be incoherent. Representation cannot fit into this picture unless something selects which facts as to what Pia looks like bear on it. It is no part of what perception is – of how it opens our surroundings to our view – that in perceiving one is to appreciate
one set of facts as to what things look like, and ignore others. Looks, on this first notion of the them, are thus not a route by which we might be represented to in perception. (Travis 2004:72–73)

According to Travis, we are to think of the content to be assigned to an experience that looks a certain way as what has to be the case for it being the way it thus looks like: When seeing Pia we see something that, naturally, looks like Pia. But then the content, according to Travis, must be that what we see is Pia. This is not problematic until we realize that the same experience can be reported to “look” in a range of different equally good (true) ways: as looking like Pia’s sister, a wax dummy of Pia etc. What decides between these different content assignments? Nothing, says Travis. The content cannot be that all of these things are represented, since this would be an incoherent representation. Hence “visual looks” fail to give us any kind of recognizable content. Indeed it seems strange to hold that perception is always bestowed with incoherent content.

Travis considers also another notion of looks (one that Wilson calls “thinkable looks”). When look indexing experiences according to this conception, Travis’ initial argument fails, since this kind of look indexing is not equivocal between infinitely many different contents. This is because thinkable looks are not concerned with how things perceptually appear, but rather with what the subject is disposed to infer from the given experience (Wilson forthcoming: 20). If something (thinkably) looks like Pia, this is because the subject takes his experience to be of Pia. In that case, the subject (at least if she is rational) will not also infer that the individual seen is Pia’s sister or a wax dummy, or any other thing that share the visual look of Pia, and hence there is no equivocation. Why doesn’t Travis think that this kind of look indexing can restore a sense in which experience have content? The reason for this is quite straightforward that the content secured by thinkable looks is not truly the content of the experience, but rather of a perceptual judgment made causally downstream of the experience. Travis has no problems with mental states other than perceptual experiences being representational. He thinks further that it is the kind of representation that perceptual judgments exhibit that might mislead people to think that perceptions also have content (Travis 2004:76).

The way I see it, this point is very solid on Travis’ part. The notion of looks indexing that is concerned with what the subject infers and takes the experience to be about, does not give us any way of assigning contents to the experience. There are however, two routes out of Travis’ argument: We can accept that visual looks determine content, but deny that this determination goes the way Travis assumes. Alternatively, we can reject tenet four; that is, reject that visual content is looks indexed. If so, Travis’ argument seems to have no bite.

First route first. This takes as a point of departure the idea that there is something wrong with the determination link between the report of visual looks and content determination. Why have it that it should be a part of the content of the experience that things are the way they
look for every true looks report? This assumption is not defended, it seems, but rather assumed by Travis. And this is where he is open for attack: We can allow that content is determined by visual looks without accepting Travis’ assumption that the content of the experience is then what things visually looks like. Rather, we could use the approach developed from the Argument from Accuracy in order to extract a more plausible content. Let us for the sake of illustration consider an experience of Pia (E₁) and another experience of Pia’s sister (E₂). Both experiences take place in perfectly normal circumstances, nothing peculiar happens and the phenomenology of both “matches” the layout of the scene in front of the perceiving subject’s eyes. These experiences share their visual looks (i.e. they share phenomenal properties); since we are working under the assumption that looks “determine content”, this means that they share content. Now, the crucial question to ask is whether the two experiences are accurate or veridical. Arguably both E₁ and E₂ are accurate. Combining this with the assumption that content is the same across E₁ and E₂ yields the outcome that the identity of the women perceived is not relevant for the truth and falsity of the content. Hence, on this assumption we should not take Pia or Pia’s sister to enter into the content of these two experiences, rather we could take the content to be that there is a woman present with such and so properties.

Now, I think Travis would object to the analysis given above because this makes an experience of Pia the same, in all relevant respects, to an experience of Pia’s sister. He would probably insist that seeing Pia is different than seeing Pia’s sister, because you see different individuals: Through E₁ you can come to think singular thoughts about Pia, gain knowledge concerning her properties and whereabouts; through E₂ you cannot. Hence, we want E₁ to somehow involve Pia and E₂ to involve Pia’s sister. There seems to be a straightforward solution to this on the Content View, namely to assign the experiences different contents: We assign E₁ the content that it is Pia that is seen, E₂ the content that it is Pia’s sister that is seen. The problem with this is just that it breaks with tenet four above, that “visual looks determine content”. But this is no problem. It should be clear at this point that tenet four is equivalent to the claim that the content of experience should be phenomenally conveyed, if it is right to understand sharing of visual looks in terms of phenomenal duplicates. However, we have already dismissed that this is a legitimate requirement on the content of experience when discussing Siegel’s assumption that the content of perception should be conveyed to the subject.

What is important in this section is that we see the two routes one could, and should, take out of Travis’ predicament: Either we accept that the content of an experience should be recognizable to the subject in the sense that they should be (visual) looks indexed (understood here to imply shared content between phenomenal duplicates). If so, there is no need to follow
Travis in thinking that the content of every experience is that things are the way they “look like”. Rather we can build on the approach developed above from the Argument from Accuracy in assigning contents. Alternatively we break with Travis’ requirement and allow experiences with the same visual looks to differ in content. This is tied up with the question of whether the content of experience is singular. This is something that I will discuss later (section 2.2.2). All in all, this serves to show, I think, that even though Travis’ argument poses an interesting challenge to the Content View, and teaches us something about the relationship between content assignments and looks reports, it needs considerable strengthening to be a knockdown argument against the Content View.

1.3 Chapter summary

In this chapter I introduced two central notions for this thesis: phenomenal properties and intentional properties. Phenomenal properties characterize phenomenally conscious states, states with a subjective perspective and quality, a “what it is likeness” to them. Intentional properties characterize mental states that are directed towards or about something. The most important kind of intentionality, for the purpose of this thesis, is what I called representational properties: properties that involve a content representing the world being a certain way.

The question that I will be concerned with in the next three chapters is the following: is there any interesting explanatory relation holding between phenomenal properties and representational properties of visual experience? This is a question of the direction of explanation. It admits of four satisfactory answers: either the two properties are not two but one (Identity), or they are distinct but explanatory independent (Independence), or phenomenal properties explain intentional properties (Phenomenology-first) or intentional properties explain phenomenal properties (Intentionality-first).

A fair amount of this chapter was dedicated to defending and articulating more clearly a presupposition for the whole project: that visual experiences have contents. I defended this claim, called the Content View, only partially by presenting the most direct motivations for it. The way I see it, the most important reason for believing that perception has content is due to Siegel’s Argument from Accuracy. This way of motivating the Content View teaches us also a great deal about which experience has which content: Experience e has the content which can explain the most of our accuracy intuitions when imagining e in a range of different scenarios. I then showed how this way of developing the Content View helped against an objection raised to it by Charles Travis. This concludes the first chapter. In the remainder of this thesis I will take it for granted that conscious visual experience is characterized by both phenomenal and representational properties.
2 Modal Correlation

We saw in the first chapter that perceptual states are characterized by both phenomenal properties and by representational properties. In this chapter I will begin exploring the question of how these two might be explanatory related. I begin this investigation by considering what is called Representationalism (Tye 2000; Chalmers 2010a) and PIRP (Kriegel 2013; short for the Phenomenal Intentionality Research Program), two positions that at face value appear to capture the Intentionality-first and Phenomenology-first, respectively.

These two positions are understood in different ways in the literature, but I give them both a specific meaning in the context of this thesis. The meaning attributed to them is not controversial, but should be considered minimal. By this I mean that (almost) everyone claiming to hold either Representationalism or PIRP will hold the thesis I attribute to them. However, there will also be many who hold more substantial, i.e. stronger theses. This is, however, not a problem insofar as my project is not to make a case around our use of words; I am more interested in how the world really is. The fact that this is the position many philosophers actually attribute to the two views makes this more comfortable, but should not be thought of as critical.

Representationalism and PIRP are here understood solely as modal claims. This means that they are taken as claims about what is possible, necessary and impossible. In this chapter we will get a good grip on how the phenomenal and representational aspect of perceptual states might be modally correlated. However, first and foremost, these two positions are studied because they seem to capture the strict priority views in modal notions. The overarching goal of this chapter is to show that this is not an attainable feat. When taken as strict-priority views, Representationalism and PIRP fail, even though they helpfully illuminate the modal correlations in place. In the end I argue that we need to go beyond mere modal tools in order to satisfactorily answer our main research question. In chapter 3 I will argue this point more extensively.

2.1 Representationalism

According to Representationalism (also called Intentionalism), intentionality and phenomenal properties are closely connected. There are two views in the literature that take this name.

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17 This was in a sense a new movement in the philosophy of mind. Interestingly, when reviewing the history of philosophy, there were for a long time few who saw the two features together. Intentionality and phenomenology were most of the time treated as strictly separate aspects of mental states. Representationalism was, at least in the modern analytical tradition, the first influential way of seeing intentionality and phenomenal consciousness as inseparably connected. In other schools, such as the Phenomenological tradition from Husserl, there have clearly been related projects going on. I do not relate the work of Representationalists or the work on phenomenal intentionality to this tradition. A comparison and conceptual clarification across these research projects would be very welcome.
According to the first view, having a visual experience is simply a matter of instantiating a representational property. In other words, the representational property exhausts the structure of the experience. On this view, the phenomenal properties of visual experiences must really be identical with representational properties; hence it is actually the Identity view (or what we called the Strong Content View in chapter 1). The other view called Representationalism is phrased as a supervenience thesis: necessarily every experience that is alike in content is alike in terms of phenomenal properties. Many writers distinguish, as I do, between these two meanings of “Representationalism” (Tye 2000:45; Macpherson 2005:127; Thompson 2006:75; Bronner 2015:227; Byrne 2001:204). Others define it simply as the first view (Identity) without presenting the ambiguity in the literature (Chalmers 2010a:342). Others again, define it solely in terms of supervenience (Bourget 2015; Nanay 2010a, 2011). In this thesis I use “Representationalism” in the latter sense, only implying supervenience (I use Identity for the stronger view from now on):

**Representationalism**: Phenomenal properties supervene on intentional content.

In our case, we can consider this thesis restricted to visual experience. Hence, we should take the above formulation as saying that the phenomenal properties of visual experience supervene on their representational properties distinguished solely in terms of content. (Sometimes this is called *Pure* Representationalism, since only contents figure in the supervenience base. I will later present a view that takes representational properties distinguished in terms of content *and manner* as a supervenience base. This is sometimes called *Impure* Representationalism; I call it Representational Supervenience in section 2.1.2).

The concept *supervenience* needs an introduction, as it is a technical philosophical notion. Given a domain of properties A and another domain B, saying that A-properties supervene on B-properties means that there can be no two things alike with respect to B-properties that differs with respect to A-properties. This signifies a certain mapping or determination relation: Given a specific B-property the A-property is determined.\(^\text{18}\) To illustrate, take the case of baldness and hair distribution. Baldness supervenes on hair distribution. If this were not the case, then there could be two people who differed with respect to baldness, one *bald* and the other *not-bald*, which had exactly the same distribution of hair. That is an impossible situation.

Supervenience has been important in modern analytical philosophy, and especially in trying to define minimal criteria of reductive projects.\(^\text{19}\) But what is really the consequences of supervenience, what metaphysical implications does it have? The relation itself appears perhaps a

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\(^{18}\) I will sometimes call the A-properties the *supervenient properties* and the B-properties the *subvenient properties*.

\(^{19}\) For instance in the discussion over what physicalism is committed to; see Lewis 1983 and Stoljar 2016.
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bit abstract and removed from the phenomenon; one might say that it is just a mapping: no difference in *supervenient* properties without a difference in *subvenient* properties. But often we want an explanation for this – how can there be this peculiar mapping without there being any explanation of it? Most of the time this explanation will go hand in hand with the idea of one domain being prior or more basic than the other. This is why Representationalism *appears* to capture the Intentionality-first view. As we shall see at the end of this chapter, however, it is not implied simply by supervenience (or any other modal connection) that one domain of properties has *strict metaphysical priority* over the other. Still, Representationalism is a substantial thesis. What motivates the thought that phenomenal properties supervene on intentional content? The main motivation comes, I claim, from the so-called Transparency Intuition. I present this next.

2.1.1 The Transparency of experience

As Representationalism is phrased as a supervenience thesis, one might think that this is motivated by studying phenomenology and intentionality separately and then inferring that there is a supervenience mapping between them. But this is not so. The arguments that motivate representationalism see phenomenal properties and intentionality together from the beginning. And the crucial premise is the so-called *transparency* of experience.

We are supposed to get at this transparency by introspection (Harman 1990:39; Tye 2002:137-138). When focusing my attention on for instance how things seem to me when looking at the scene directly in front of me, I am aware of lots of things and qualities that appears to be real, external entities. I see a grey computer, a white desk, a dirty old coffee mug etc. Further, it seems like I am only aware of qualities that appear to be of the external physical world. I am not able to focus on the experience itself and its intrinsic qualities and properties. Rather I just “see through it”, in the words of Tye (2002:139). As Gilbert Harman puts it:

> When you see a tree, you do not experience any features as intrinsic features of your experience. Look at a tree and try to turn your attention to intrinsic features of your visual experience. I predict you will find that the only features there to turn your attention to will be features of the presented tree, including relational features of the tree “from here.” (Harman 1990:39)

We are, following Harman and Tye (and much earlier G. E. Moore, see fn.²⁰) aware of nothing else than properties experienced as properties of external objects when introspecting our own visual perceptual states. Let us call this the **Transparency thesis**.

²⁰ Some of the influence that the Transparency Intuition has exercised on contemporary philosophers should quite clearly be attributed to G. E. Moore and his investigation of his own experience of blue:

> And this for the reason I gave above: namely that the moment we try to fix our attention upon consciousness and to see what, distinctly, it is, it seems to vanish: it seems as if we had before us a mere emptiness. When we try to introspect the sensation of blue, all we can see is the blue: the other element is as if it were diaphanous. (Moore 1903:450)
How does transparency lead us to Representationalism? This is not straightforward. We need a step taking us from the premise that all we are aware of when introspecting our own conscious experience is properties experienced as of external objects, to the fact that phenomenology supervenes on intentional content. The natural premise is this: That we have some sort of access to differences in phenomenal properties when introspecting. The access need not be universally present, but to get the argument going it needs to be at least potentially present in every case of phenomenal difference. This will do:

**Phenomenal access:** For any two distinct mental states, $e$ and $e^*$: if they differ in phenomenal properties, then one could be aware of an introspective difference between them.

This premise appears quite natural, perhaps even trivial. It resembles indeed how we fixed reference to phenomenal properties to begin with (that phenomenal properties are *what it is like* to undergo a conscious mental state): If there is an introspective difference between two states, then it is strange to hold that this is not also a difference in *what it is like* to undergo that state. It is, however, a non-trivial part of the argument from transparency, which goes as follows:

1. If we have any two mental states $s$ and $s^*$ that differ in phenomenal properties, one could be aware of an introspective difference between $s$ and $s^*$.
2. Every introspective difference is a difference in properties experienced as properties of external objects (Transparency)
3. If there is a difference in the properties that is experienced as properties of external objects between two experiences, then they differ in content.
4. Since $s$ and $s^*$ were chosen arbitrarily, it follows that whenever there is a difference in phenomenal properties there must be a difference in content.

The only premise not yet presented in this argument is premise 3. I believe this premise is quite plausible, but it is not perfectly clear how to understand the relation between introspective awareness of properties that appear to be of external objects and the content of that state. One could hold that when introspecting visual states one is aware of the content of the state; alternatively that one is aware of the properties represented by the state. Nonetheless, it is plausible, I think, to hold simply that there is a difference in content whenever there is a

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21 The difference between these two approaches is in part what motivates the change in Michael Tye’s view of what phenomenal properties are (see fn. 42). The subtleties, however, will not be important throughout. What is important for my purposes is that premise 3 is plausible.
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difference in properties experienced as of external objects. With all three premises in place, Representationalism falls directly out of the Transparency argument.  

2.1.2 Supervenience scrutinized

The general motivation for Representationalism is the Transparency argument. Considering concrete instances can then back up this very general argument: I do find the Transparency Intuition quite plausible when I for instance perceive a red tomato in front of me. I seem to be unable to attend to any other properties of this experience other than the redness and other features experienced as real, external properties. Still, there is debate in the literature whether the supervenience claim holds. And a range of alleged counterexamples have been described.

The form that such examples take is quite straightforward: one describes two experiences that differ in phenomenal properties, but where one can find no corresponding difference in content. Take for instance examples that build on the idea that one can view the same object from different distances while representing it to be of the same size. Clearly there is a difference in phenomenal properties as the object takes up more of the visual field when it is closer, but the object is nonetheless experienced as being of the same size when approaching it. However, those examples are not convincing as examples of experiences with only the same content: even though the size might be represented to be the same, the object is represented as closer to the perceiver, in other cases as further away (see also Tye 1996). Other examples include cases of blurry vision. For the purposes of this thesis, however, I assume that this can be solved for the Representationalist.

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22 This argument resembles one made by Byrne (2001). He never uses the term “transparency”, but it is clear that his argument follows mainly the same structure as the one presented above. Byrne is especially concerned with defending the thesis that an ideal subject would notice any intrapersonal change in phenomenal properties when introspecting (2001:206–210). Further, he argues that in any ideal subject, any two consecutive states that differ phenomenally differ in content (2001:213). In a series of steps this is developed and extended to the stronger thesis that any two mental state that differ in phenomenal properties differs in content, without qualifications to the effect that this only holds for states had by the same subject or consecutively (2001:217).

23 The classic different-distance-same-size example involved the experience of a tall tree seen from a distance. This example is initially discussed in Peacocke (1983:12–13). Peacocke does not put it forward as a challenge directly against Representationalism; rather he uses it to target what he calls “the Adequacy Thesis” (AT). According to Peacocke, AT states that: “a complete intrinsic characterization of an experience can be given by embedding within an operator like ‘it visually appears to the subject that . . .’ some complex condition concerning physical objects.” (Peacocke 1983:8). This is closely related to Representationalism, but not quite the same. However, the case has been discussed also as a putative counterexample to Representationalism (see for instance Fish 2010:70).

24 See for instance Boghossian and Velleman (1989) for the challenge from blurry vision: the basic version of the challenge is that there is no change in content between seeing something sharply and seeing something blurrrily. However, this is not very convincing. When seeing something blurrrily, we lose information about where the edges of objects actually are (see Bourget 2015). A more difficult challenge from blurry vision holds that there is a phenomenal difference between seeing something blurry sharply and seeing something sharp blurrrily. Tye (2003) offers a solution to this challenge: in the first case one represents that the edges of a given object lies a place between here and there, and that it is indefinite exactly where. In the second case one only represents that the edges lies somewhere in a given region, the content is silent on exactly where rather than representing that it is indefinite (Tye 2003:20).
However, one example needs a thorough presentation. This builds on the observation that shifts in attention affects phenomenal properties, consider this case described by Calmers:

To my mind, the most plausible potential cases of phenomenally distinct visual experiences with the same representational content involve differences in attention. […] For example, one might look at two red pinpoint lights against a black background and shift attention from one to the other. Here it is not obvious that there is a representational difference between the cases. (Chalmers 2010a:348–349)

Arguably, there is a difference in phenomenology when shifting attention covertly (keeping head and eyes fixed) between two pinpoint lights like this. What could the Representationalist say in this case; is there a change in content, corresponding to the change in phenomenal properties?

Some have argued that there is a difference in content, a difference in *determinacy* (Stazicker 2011; Nanay 2010a, 2011). According to them, the properties attributed to unattended objects stand to the properties attributed to attended objects as determinable to determinate. However, Ben Bronner has raised doubts concerning the way this suggestion interprets the empirical evidence. Bronner thinks the studies Nanay and Stazicker relies on do not show a clear difference in determinacy. Still, there appears to be a difference in content present in Bronner’s own interpretation, namely that those things we attend to are represented as being bigger, louder etc. (Bronner 2015). Perhaps this is the way Representationalism should respond to phenomenal contrasts due to covert shifts in attention?

Sebastian Watzl (2017) offers a similar interpretation of the empirical studies. He, too thinks attention makes an impact on the represented properties of objects, with objects of attention being represented as slightly bigger, louder etc. (Watzl 2017:161; see also Block 2010:41). The relevant evidence is found in Carrasco, Ling & Read 2004 and Carrasco 2011, 2014. However, this does not solve the problem for Representationalism, according to Watzl. The problem is that even with this effect in mind it seems possible to construct cases in which the content is the same across two distinct experiences while there is a different distribution in attention, i.e. in one experience you attend to a *tomato*, in the other experience to a *cucumber* (the shift in attention being covert). In order to create such a case we need only to compensate for the shifts in represented size that attention brings with it. To put it crudely, in the first experience you attend to a small tomato with a big cucumber outside your attention, in the contrast experience you attend to a smaller cucumber while having a bigger tomato outside your attention. It seems plausible that the effects that attention has on apparent size could be compensated for in this way.

Still, as Watzl claims, there seems to be a clear *phenomenal difference* between the two experiences due to the fact that one attends to different objects (see Watzl 2017:173–181 for the detailed “Replication argument”). I think Watzl’s point is sound; there is a phenomenal
difference that comes with shifts in attention that cannot be captured by properties attributed to objects. Watzl’s own view is that attention affects *phenomenal structure* and not *phenomenal qualities*.

Attention structures consciousness into what is more central and what is more peripheral. Unlike spatial structure, the center-periphery structure of consciousness is not a structure of how the world appears to the subject through her conscious perspective. It is the structure of her perspective itself. […] Without attention, experience would be an unordered bundle of appearances while with attention it is structured. The parts of your experience are ordered from those that are most central to those that are peripheral. (Watzl 2017:183–184)

On this view, attention shapes visual experiences by giving them *a priority structure*, a structure that is reflected in phenomenology, but not in content. I take Watzl’s view to be a strong attack on Representationalism. If he is right, then the phenomenal differences due to covert shifts in visual attention proves this view wrong. This does not mean, however, that the representational properties are the same across covert shifts in attention, only that the difference is not attributable to the content; could there perhaps be a difference in representational *manner* in the cases described by Watzl? It is clear that we could weaken Representationalism by taking the supervenience base to be representational properties distinguished both in terms of content and manner. This view is sometimes called *Impure* Representationalism (Wu 2011; Chalmers 2010a); here I call it simply Representational Supervenience:

**Representational Supervenience**: phenomenal properties supervene on *representational properties*.

Do covert attention shifts also pose a challenge to this view? This is not so clear. I believe Watzl’s view could very well be in accordance with such a view: The phenomenal difference between visual states with attention and no attention at all would correspond to a difference between representing a given content in a manner with and without *a priority structure*. The difference between attending *here* and attending *there* corresponds more precisely to the difference between having such and so priority structure. Indeed, talk of attention as shaping one’s perspective, seems close to the idea that attention alters representational manner. If Watzl’s view accords with this interpretation, then this is an appealing way in which Representational Supervenience coheres with the phenomenal changes that comes with shifts in visual attention.

In the following discussion, Representational Supervenience will figure more prominently than Representationalism. I do not assume that Representational Supervenience is true at this point, but is should be clear that I am assuming that this position can deal with such alleged counterexamples as *blurry vision* and *shifts in attention*. As we will see later, however, it is also possible to pose more “dramatic” counterexamples to Representational Supervenience. They are more dramatic since they claim that phenomenal differences *that naturally go together with content shifts* (such as changes in colour phenomenology) have no corresponding change in
content (or manner). One prominent example of this kind will be presented later; it was described by Ned Block and called Inverted Earth (section 2.3.1). Eventually I will argue that, *either* such cases as Inverted Earth is legitimate and Representational Supervenience (and Representationalism) breaks down completely, or they are not legitimate counterexamples, in that case Representational Supervenience holds. This is the topic of section 2.3.3. I leave this issue for now. What is important at this point is to understand what Representational Supervenience understood through supervenience actually says, what motivates it, and how counterexamples are posed and possibly dealt with. Note also that formulating this thesis using supervenience gives it the appearance of a strict-priority view, but as we will see later this is not so.

2.2 Phenomenal Intentionality

I will now turn to the other, quite recently developed, way of seeing intentionality and phenomenology as tightly knit together, the Phenomenal Intentionality Research Program (PIRP). PIRP is a collection of different approaches to both intentionality and phenomenology. What binds them together is the belief in the existence of *phenomenal intentionality*:25

**Basic PIRP:** Some mental states have phenomenal intentionality.

What is phenomenal intentionality? In the literature we find a variety of answers. Uriah Kriegel writes this in his introduction to the anthology *Phenomenal Intentionality* (2013):

Phenomenal Grounding. There is a kind of intentionality – phenomenal intentionality – that is grounded in phenomenal properties. 

[...] somewhat atypically, as I use the term ‘grounding’, the grounding relation need not be anti-symmetric. On the contrary, it could well be that phenomenal property and the intentional property it grounds are strictly identical. (Kriegel 2013:5)

One of the first sources in which the term “phenomenal intentionality” figured was Horgan and Tienson’s “The Intentionality of Phenomenology and the Phenomenology of Intentionality” (2002). Here they defined phenomenal intentionality in the following way:

*Phenomenal intentionality:* There is a kind of intentionality, pervasive in human life, that is constitutively determined by phenomenology alone.

We use the expression ‘constitutively determined’ to mean that this kind of intentionality is not merely nomically determined; rather, intentional mental states have such intentional content *by virtue of their* phenomenology. (Horgan & Tienson 2002:520)

25 There are important differences within this broad group, and one difference relates to how pervasive one thinks phenomenal intentionality really is. One might hold that all intentionality is phenomenal intentionality or just that some intentionality is. There are also middle positions here. A middle position is characterized by holding that all intentional mental states are either “directly” phenomenal intentional, *or* otherwise states standing in the right sort of relation to states that have “directly” phenomenal intentionality. This is often phrased in terms of *derived and undirected* intentionality (see Kriegel 2013 for an overview). I have already chosen to restrict myself to only treat the phenomenal properties and representational properties of visual states, the discussion relating to the pervasiveness that go outside of this is therefore not treated here.
From these quotes we get the idea that phenomenal intentionality is a kind of intentionality that is *grounded in* the phenomenal properties of those states. Alternatively, that some mental states have intentionality *in virtue of* phenomenal properties. Now, this makes PIRP appear to capture the Phenomenology-first view. It is, however, not perfectly clear what these formulations really mean. Are they referring to the same kind of relation? In order to fix one minimal meaning of the term “phenomenal intentionality” I will in the next section examine closer how Basic PIRP is defended. I find there that understanding this purely modally, as intentionality that is necessitated by phenomenal properties, will be justified. This means, however, that Basic PIRP will be compatible with Identity, effectively proving that it *fails* to be a strict-priority view. (We can actually see that this is so already by examining Kriegel’s definition: grounding, as used by him, does not exclude the possibility of an identity relation between the ground and grounded. This use of “ground” differs radically from the standard use of this notion in the literature and the technical meaning that I will assign it in the next chapter.)

### 2.2.1 The Phenomenal Duplicate Intuition

Why think there is phenomenal intentionality? In this section I will look at one of the major arguments for Basic PIRP, which appeals to the idea of a phenomenal duplicate. I will focus here on two of the most prominent displays of this argument: Horgan and Tienson’s article mentioned in the section above, and an argument made by Charles Siewert in his 1998 book *The Significance of Consciousness*. If it is true, as I claim, that this is among the most influential arguments for the existence of phenomenal intentionality, then this will also teach us more closely what phenomenal intentionality is. The phenomenal duplicate argument justifies, I think, taking phenomenal intentionality to be intentionality that is necessitated by phenomenal properties.

This point is easily seen in Horgan and Tienson’s article. They defend the Phenomenal Intentionality thesis by describing, very vividly, how phenomenal duplicates *necessarily will come to share some content*. Phenomenal duplicates are understood as creatures that have the same phenomenal properties occur to them in the same order, pace and rhythm throughout their entire life. If this serves as a defence of the existence of phenomenal intentionality – i.e. that phenomenal duplicates necessarily share representational properties – then this leads to a natural understanding of what phenomenal intentionality is: namely, representational properties that are necessitated by phenomenal properties. Horgan and Tienson seem to straightforwardly endorse this view later. When giving a clarification of the phenomenal intentionality thesis they say the following:

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26 This is more common than Horgan and Tienson’s *by virtue of* formulation.
We can then state the phenomenal intentionality thesis this way: There is a kind of intentional content, pervasive in human life, such that any two possible phenomenal duplicates have exactly similar intentional states vis-à-vis such content. (Horgan & Tienson 2002:524)

This clarification clearly amounts to nothing over and above a claim regarding metaphysical necessitation: any two possible phenomenal duplicates must share some content. If this claim holds generally, as Horgan and Tienson seem to think, for every possible phenomenal duplicate, then it should hold for every phenomenal property.²⁷

Consider now this position stated by Siewert:

First, consider some instance of its seeming to you as it does for it to look as if something is shaped and situated in a certain way, such as its seeming to you just as it does on a given occasion for it to look as if there is something X-shaped in a certain position. If it seems this way to you, then it appears to follow that it does look to you as if there is something X-shaped in a certain position. If this is right, then its seeming this way to you is a feature in virtue of which you are assessable for accuracy – that is to say, it is an intentional feature. (Siewert 1998:221)

This passage is influential in the literature on phenomenal intentionality. And it might seem like an attempt at explaining the presence of intentionality from phenomenology. Hence, we could take Siewert as endorsing a Phenomenology-first view. However, it is not at all clear that this is what he intends with the last sentence: is it Identity or Phenomenology-first he is proposing?

What is clear, on the other hand, is that Siewert’s supporting argument is concerned solely with the Phenomenal Duplicate Intuition: He discusses extensively whether anything else, other than an experience having a given phenomenal property, needs to be in place in order to secure a set of intentional properties. At the end of the day he concludes that the answer is no (see Siewert 1998: chapter 7). He bases this on much of the same considerations that Horgan and Tienson rest on. For instance does he consider whether “broken environmental links”, would make phenomenal properties insufficient for a set of intentional properties. Broken environmental links means here that the mind in question does not interact with the environment in a normal fashion; perhaps it is simply a brain in a vat fed surface impulses that correspond to the kind of surface stimulus a human being could have undergone in their interaction with a normal environment. On this issue, Siewert follows Horgan and Tienson; according to them, a brain in a vat could have a range of intentional properties determined by phenomenology alone (Horgan & Tienson 2002:524–525; Siewert 1998:242–245).

²⁷ The reason for this is that we can imagine a creature having a simple phenomenal property through its entire life, for any phenomenal property. Hence, if any phenomenal duplicate of these simple phenomenal lives will share some intentionality, then any phenomenal property necessitates some intentional properties.
It should be clear that Siewert, as well as Horgan and Tienson, probably wants to endorse a position where phenomenology has *strict metaphysical priority* over intentionality. However, from the way they frame the issue, the focus is clearly on the necessitation of intentionality by phenomenal properties alone. The intuition that phenomenal duplicates share some intentional features seems to be the foundational premise. Let us call this the Phenomenal Duplicate Intuition. My claim now is that arguments with the Phenomenal Duplicate Intuition as a crucial premise are among the most important arguments in favour of Basic PIRP. If this is true, then it seems justified to define phenomenal intentionality accordingly:

Phenomenal intentionality =\_\_ intentional properties necessitated by phenomenal properties.

Now, I think it is clear that visual perceptual states should be considered the primary example of phenomenally intentional states. If one combines this idea with the Content View, then the lesson that should be drawn from the Phenomenal Duplicate Intuition is that the phenomenal properties of visual states necessitates some aspects of the intentional content of that state (alternatively that it necessitates representational properties, distinguished by both manner and content).

The Phenomenal Duplicate Intuition makes it quite plausible, I think, that visual perceptual states have phenomenal intentionality. The more detailed version of the Phenomenal Duplicate Intuition seems very strong (see especially Horgan and Tienson 2002). But how far should we think it goes, what kind of aspects of visual content are necessitated by phenomenal properties? If it were to hold for all aspects of the content of experiences, then we would have a

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28 The way I take it, there is a tension between PIRP and the Phenomenology-first position: on one side Horgan & Tienson clearly wants to endorse the view that I will present later that captures the Phenomenology-first view with an asymmetric and irreflexive grounding relation (Phenomenal Ground), but at the same time, there is a sense in which the discussion around phenomenal intentionality centres on the question whether phenomenology suffices for intentional properties. The tension is here that if Identity is true, then phenomenal properties do suffice, without that implying in any way that phenomenal properties are metaphysically prior to intentional properties, after all they are identical. We find the same tension in Kriegel’s discussion over “experiential intentionality” (2011: 44–45). Kriegel suggests two definitions of what experiential intentionality is, the intentionality that comes “in virtue” of a state’s phenomenal property: one doctrinal and one neutral. According to Kriegel, “the doctrinal definition of experiential intentionality requires metaphysical dependence of the intentional on the experiential, the neutral one requires only counterfactual dependence.” (fn. 109). Only the first one breaks with Identity and is a candidate for capturing Phenomenology first. Kriegel works with the first and develops in the end a view that would fall under Identity.

29 This is a substantial claim, but is backed up by reviewing the literature. Siewert’s argument is for instance highlighted by Kriegel as a strong argument for Phenomenal Grounding (Kriegel 2013:7). Chalmers also relies heavily upon Siewert’s argument in order to motivate the idea that experiences are assessable for accuracy simply in virtue of phenomenal properties (see both 2010a:345; 2010b:383).

We should, however, distinguish the Phenomenal Duplicate Intuition from other motivational ideas: take for instance the thought that subjectivity is necessary for intentionality, i.e. that the given content is represented to someone. Following this idea will lead to the idea that only phenomenal states can be truly intentional. And in that sense, one might end up defending a version of Basic PIRP (for ideas in this spirit see for instance McGinn 1988).

30 Visual states are discussed most extensively in Horgan and Tienson 2002 and Siewert 1998; it is also the main focus of Chalmers when discussing “phenomenal content”, and the main focus of Brian Loar in his 1995 and 2003 articles which are important in the brief history of phenomenal intentionality.

31 Hence, phenomenal intentionality is the same as phenomenal content, using Chalmers’ definition (2010b:383).
supervenience thesis corresponding to Representationalism, just in the opposite direction: that there can be no difference in the intentional content of visual experience without a difference in phenomenal properties. But is this really plausible? As we will see, there are reasons for thinking that content can differ in several aspects while phenomenal properties stays the same. If that is the case, these aspects cannot be necessitated by phenomenal properties. I turn to this now.

2.2.2 Perceptual particularity

Which representational properties are plausibly necessitated by phenomenal properties? I will begin this investigation by considering one aspect that – if present in visual content at all – clearly cannot be phenomenally intentional (i.e. necessitated by phenomenology). This is the singular aspect, the object involving representational properties.

If the objects we experience enter into our visual content, (i.e. if it is part of the accuracy conditions of a successful experience that that very object is experienced) then this is an aspect of the content that cannot be necessitated by phenomenology. This is because of two considerations: (1) Experiences of different objects can share phenomenology; (2) It is plausible that some hallucinations and some (successful) perceptions can share phenomenology (consider Macbeth again). Since the content can only be singular when there is an object one actually sees, this means that if the content of veridical perception is singular, then the same phenomenal property will sometimes be accompanied by a singular content (in perception), while in hallucination the content is made up of purely general features: i.e. properties and kinds.32

Now, why think that content is singular in the case of veridical perception? This is due to the first explanatory role that contents are supposed to fill as introduced in chapter 1: That visual content should explain the content of perceptually based thoughts and beliefs. The most pressing reason for thinking that visual content is singular stems from the observation that we sometimes have singular thoughts, and that we are able to have such thoughts because of visual acquaintance with the object in question. This leads to the idea that also the content of visual states should be singular, as to be able to explain the singular content of the relevant thoughts.

Susanna Schellenberg uses the assumption that perceptual states should explain singular thoughts to infer what she calls the particularity thesis. This thesis is not concerned with whether veridically perceiving an object α gives the experience a singular content involving α, but only that the experience is particular in the sense that it is constituted by α. However, Schellenberg thinks

32 What kind of content could this be? Some would say that in the case of hallucination the content is existentially quantified (i.e. "there is something having F"), others would invoke the idea of "gappy content" (i.e. "____ has F"). It is also an option to think that the "object-aspect" of content is Fregean in the sense that it consists of a mode of presentation of an object (see Siegel 2016 for an overview; Tye 2009: chapter 4 for a relevant discussion).
the most important sense in which the experience is constituted by $\alpha$, is that it enters directly into the content of the experience (Schellenberg 2016:16–23).\footnote{33}{The argument goes as follows (see Speaks 2009 for a very similar argument):}

To summarize, the argument in favour of visual states having singular content is this: There are singular thoughts that should be explained by visual experiences. The best explanation of this would have it that the content of visual experiences is singular. Hence, the content of visual experiences is singular.

One could of course reject one of these premises and hold that visual content is not singular.\footnote{34}{One possible objection to this argument is of course to deny the first premise. This would plausibly consist in rejecting the possibility of singular thought altogether, since it seems implausible to hold that we have singular thoughts, but not through perception. The role that perception plays in securing reference to particular individuals has been important throughout analytic philosophy, and this premise seems often implicit (see for instance Strawson 1964:18–19). Another objection is to argue against the need for singular content in order to explain this. Perhaps singular thought could be explained by purely general perceptual content paired with the casual connections to the environment. I will return to this in chapter 4 when discussing Phenomenology-first.} However, what is important in our case is to note that, if the content of perception is singular, \textit{then} this is an aspect that quite clearly is not necessitated by phenomenal properties.\footnote{35}{Schellenberg is not alone in thinking that content is singular in perception and illusion, see also Soteriou 2000, Tye 2009: chapter 4. Burge holds a somewhat similar view 2010:382.}

This is because \textit{which} object is seen is not “available” to me through phenomenology. It is wildly plausible, I think, that one can swap two qualitatively identical objects with each other and yet the experience of each object will \textit{in principle} be indistinguishable to the perceiving subject.\footnote{36}{It should be clear here that the meaning of “available” that I am using here is exactly the same as what I stipulated for “phenomenally conveyed”, discussed in relation to Siegel’s requirement that content of perception should be conveyed to the subject. It also closely resembles Travis requirement that the content of perception should be looks indexed understood to imply that phenomenal duplicates should share content, both discussed in chapter 1. Here we see again why we should reject that perceptual content by definition is phenomenally conveyed or looks indexed in the sense that phenomenal duplicates share content, since there are reasons for thinking that the content of perception involves a singular aspect. This is an aspect that plausibly is not available through phenomenology.}

\textbf{2.2.3 Phenomenally manifest features}

As I have argued in the last section, if one takes visual content to be singular, \textit{then} the singular aspect of the content makes no difference to phenomenology (two qualitative identical objects

\footnote{37}{Imagine perceiving a red and shiny marble that an experimenter holds up in front of you. If she now were to hide it for a brief moment behind her back, before raising her hand containing a red shiny marble again, you would not be able to figure out, simply by attending to your visual phenomenology, whether this was the same or a different, but very similar, marble. And further, there is a sense in which the two marbles could be so alike that it is \textit{in principle} impossible for anyone to do this. The two marbles could be qualitatively identical. There would still be a fact of the matter whether or not the second marble is the same as the first, but this is something that we could not know simply by looking at it.}
can “look the same”). Hence, even if we think there is some plausibility to the Phenomenal Duplicate Intuition, there has to be some limit to what aspects it plausibly holds for. Which aspects are candidates for being necessitated by phenomenal properties? The Phenomenal Duplicate Intuition is only plausible, I think, for those qualities of objects that determine the visual look of something (in the sense with which Travis used this term, see section 1.2.4). Let us call those aspects the “phenomenally manifest features”. What are the relevant features/properties? I provide a rough characterization of the phenomenally manifest in this section. The lesson that should be drawn from this discussion is that, if the Phenomenal Duplicate Intuition is sound, then it only holds for a set of properties that can be characterized in the way that I do here.

As a first approximation, I think it is clear that the following group of properties suggest themselves for being phenomenally manifest: colours, shapes, spatial properties, textures and the like. Naturally we take a change in colour phenomenology to correspond to a change in content, this is the same way for a change in shape-, spatial- or texture phenomenology. I am not stipulating that the Phenomenal Duplicate Intuition is sound; we will see later how it is possible to hold that for instance colour phenomenology and colour content can vary independently. All I am saying is that these aspects are what motivates the Phenomenal Duplicate Intuition in the first place: Exactly the same colour phenomenology should, if anything does, necessitate colour aspects of visual content (the same for shape phenomenology etc.).

The list provided above is not meant to be exhaustive; rather the properties listed there are the clearest examples of the phenomenally manifest. However, giving the clearest examples of those properties that are phenomenally manifest will not alone succeed in making the distinction meaningful, we need also an understanding of what kinds of properties do not fall within this category. This brings me to the crucial question of this section: What are the relevant contrast cases? What is it that clearly is ruled out from being phenomenally manifest? Without clear contrast cases to the phenomenally manifest (apart from the singular aspect), one might rightfully doubt that this distinction amounts to anything real. There are, however, contrast cases: kind properties that can differ while sharing a visual look. Let me elaborate.

One might think that perceptual states represent kind properties such as being a pine tree or being a cat. The reason for this is due to a general externalist trend in analytical philosophy, as I will present soon. However, if such kind properties are represented, then they are not phenomenally manifest, since these natural kinds can share a visual look with other, distinct natural kinds. This does not mean that the representation of those natural kinds is ruled out from entering visual content, it just means that they are not plausibly phenomenally intentional. I will illustrate this with an example soon. First, however, it will be useful to present the more
general theme of externalism of content, since this is what motivates the idea that we represent the relevant kinds in visual content in the first place.

Those familiar with analytical philosophy probably know the seminal work by Kripke (1972), Putnam (1975) and Burge (1979) to the effect that some aspects of mental content is external in the sense that relevant differences in the environment is all it takes for a difference in mental content. This means that even molecule for molecule duplicates can think different thoughts at a given moment, if only the natural kinds they engage with differ in relevant ways.

When I think thoughts that I express by using the English word “water”, my thoughts are about H$_2$O due to this being the chemical formula of the liquid that fills up lakes and rivers here on Earth. On another planet, far away from Earth, there might be another chemical compound filling lakes and rivers, call it XYZ, which is nonetheless superficially very much like water. Everything else on this planet could be exactly as it is on Earth: Qualitatively identical humans do qualitatively identical actions in qualitatively identical environments (except for the H$_2$O-XYZ-swap). Now, if my “counterpart” on this “Twin Earth” were to think thoughts he expresses with the word “water”, his thoughts would be about XYZ even though he could be a molecule for molecule duplicate of me when I think water-thoughts that are about H$_2$O (this is Putnam’s famous Twin Earth scenario from his 1975 article). The externalist insight is that mental states inherit their content from the kinds, properties and objects that we normally interact and engage with. That is, those properties enter into the truth- or accuracy-conditions of the relevant mental state.

Some think that the content of perception exhibits exactly the same kind of externality as thoughts about water does. This is what makes it plausible that we represent natural kinds in visual content. Burge (1986) provides an example of this, building on a twin earth kind of structure. Burge argues that molecule for molecule duplicates could undergo visual experiences of a small shadow with different representational content, due to differences in environment: one subject could represent it falsidically as a small crack, and another subject veridically as a small shadow.\footnote{In Burge’s case, this example involves two subjects in two different environments. The only difference between the two is that whenever the first subject (S$_1$) has an experience caused and explained by a small crack, the other one (S$_2$) has an experience caused and explained by a small shadow of similar shape, however in terms of the subject’s intrinsic properties their experiences cannot be distinguished. At some point in time they both experience a small crack. Burge argues now that, even if they are molecule for molecule duplicates, S$_2$ experiences a crack for the first time and enters the experience that is normally caused and explained by the presence of small shadows. Hence, S$_2$ misrepresents it as a shadow. S$_1$, who is “used to” cracks, veridically perceives it as a crack (Burge 1986 for details).} We can, I think, make the case even more dramatic than this. If we think that perception represents kinds and externally determined aspects, why not take it that perception can represent natural kinds like being a cat? Siegel endorses the view that we represent kind-properties like this in visual content (2011:chapter 4; see also Bayne 2009).
If *being a cat* is an aspect of our visual content, then it is not plausibly an aspect that is phenomenally intentional. This is because this natural kind shares a visual look with other distinct natural kinds: Cats are the natural kind that we engage and interact with here on Earth. Consider now a relevant Twin Earth where they also have feline-like animals corresponding to our cats. Given natural assumptions regarding species as natural kinds, the cats we have here on Earth would not be the same species as those on this Twin-Earth; after all, they do not share any evolutionary history and do not belong to the same interbreeding population. Hence, what you see when seeing a cat, and what your molecule for molecule duplicate sees when seeing a *twin-cat* on Twin Earth, would be different natural kinds. If you represent *being a cat* when seeing cats, then your counterpart represents *being a twin-cat*. (Note that this is a conditional claim, I am not stipulating that natural kind properties enter into visual content, but if they do, then they also do so for your Twin Earth counterpart).

Now, is it plausible that this difference corresponds to a difference in phenomenal properties? Must there be a difference in what it is like for us to represent cats compared to what it is like for our counterparts to represent twin cats? I think not, because cats and twin cats could share all those properties that we take to determine the visual look of something, in other words, they share all the phenomenally manifest features (note that this does not necessarily undermine Siegel’s argument from phenomenal contrasts in favour of the view that we represent kinds). I

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39 My argument against representation of biological species being phenomenally intentional rests on an understanding of species that is either phylogenetic or something close to “the biological species concept”: according to the first, species are evolutionary lineages; according to the latter, species are groups of interbreeding organisms. If one were to define species morphologically (similarity in physical nature) or in terms of genetic similarity, then there would perhaps be no difference in kind between *cats* and *twin-cats* as these to groups of animals could share both morphology and DNA structure. This would block my point. In order to counter this objection one could describe the case a bit differently, with *robot-cats* that look exactly like cats. It is quite clear that we would not take robot-cats to be the same species as cats even on the morphological species concept. Still, I think it is plausible that two “experts” could enjoy *phenomenal duplicate experiences* when recognizing cats and robot-cats by sight in their respective environments.

40 Siegel argues for the view that we represent natural kinds such as *being a pine tree* in visual states from phenomenological considerations (Siegel 2011:99–115). She argues that someone who has gained the ability to recognize and pick out pine trees in a reliable and instantaneous manner, will have a phenomenal contrast between her perception of pine trees before and after having gained this ability. This seems correct, there is a sense in which experts (not just tree-experts, but bird-, fish-, rock-experts etc.) experience trees (and birds, fish, rocks etc.) as being *that* kind of tree and as “standing out”, in a sense, from the rest. Siegel’s argument proceeds by arguing that this is evidence of a representational difference attributable to perception. Her main defence of this position targets the possible objection that this phenomenal contrast is not a product of a purely perceptual phenomenon, but rather due to some cognitive workings further downstream of the experience (a belief, a judgment etc.). Let us, however, for now put this issue aside and accept Siegel’s defence against this objection. What is important for our concern is whether the phenomenology of the woodsman, after having gained the recognition capacities, will necessitate the content being a pine tree? That is, is it impossible that the same phenomenology could accompany the representation of *being a twin-pine tree* instead? I think this is implausible. And the reason is the same as the one with the cats and the twin-cats: imagine a Twin-Earth that is a molecule for molecule duplicate of our own planet Earth. Given natural assumptions about biological natural kinds, the pine trees on our Earth is not the same species (i.e. not the same kind) as the corresponding “pine trees” on Twin Earth. Consider now a woodsman on Twin-Earth. This person could also, of course, acquire the same recognition capabilities with respect to twin-pine trees. After
have therefore provided a clear contrast class to the phenomenally manifest: natural kinds that share a visual look with distinct natural kinds.

Three clarifications are in order: (1) I have argued here that if we find the Phenomenal Duplicate Intuition plausible, then it seems to hold for all and only the phenomenally manifest properties (representing different individuals will not alone make a difference on phenomenal properties, neither will representing different natural kinds that share a visual look). Some might be opposed to the whole idea that phenomenal duplicates share content; however, my point is conditional on the fact that there is something convincing in the intuition in the first place.

(2) If one accepts the Phenomenal Duplicate Intuition for phenomenally manifest properties, this does not mean that one rules out representation of particular objects or natural kinds that can differ while sharing a visual look. The argument above is only concerned with the extent of the Phenomenal Duplicate Intuition.

(3) The points developed above does not rule out the idea that phenomenal properties of visual experiences are externally determined, far from it. We will see in the next section that the case for externalism about colour representation is strong; some take this to show that also phenomenal properties are external, since “colour phenomenology” should change if colour representation changes. This view is called Phenomenal Externalism and will be presented soon.

What I have argued here is that Phenomenal Externalism is not plausible for the singular aspect of experiences and for the representation of such properties as being a cat or being a pine tree. It is possible to hold Phenomenal Externalism for these kinds of aspects as well. However, I do not find such a view convincing. Phenomenal Externalism is a strong position, but only when restricting to phenomenally manifest properties. I will soon present this position in more detail.

Accepting the Phenomenal Duplicate Intuition regarding visual content would then have the consequence that phenomenal properties necessitate all representational properties when having acquired this skill, our twin woodsman would have experiences with a phenomenal contrast compared to those before having the same skill. Assume now that the woodsman here on Earth is representing being a pine tree, while the twin-woodsman is representing being a twin-pine tree. Does this difference correspond to a difference in phenomenal properties? I think not. This is so, even though we can use the fact that they undergo a phenomenal change when learning to recognize pine trees and twin-pine trees respectively to argue that they represent different properties: the immediate recognition of this particular kind means that they represent the kind that is causally responsible for those visual experiences. We do not need phenomenal properties to differ between representation of pine trees and twin pine trees in order to argue for this conclusion.

Note, however, that if the phenomenal contrast argument is sound, then this means that experiences representing being a pine-tree, being a twin-pine tree, being a twin-pine tree etc. necessarily will have a phenomenal contrast compared to experiences not representing any such higher order kinds. We could now unify all these properties by introducing equivalence classes on natural kinds, were equivalence is determined with respect to visual looks. This means that the following aspect could be phenomenally intentional: representing that some object is of a kind that shares a visual look with pine trees. This could figure in visual content as a mode of presentation of the relevant kinds. We will see later that a similar suggestion is quite plausible with respect to colours. The mode of presentation-strategy appears to be an attractive way to combine Siegel’s argument with my own.
restricting to the phenomenally manifest. In other words, this means that these representational properties supervene on phenomenal properties in conscious visual states.\footnote{The transition from necessitation to supervenience is perhaps not perfectly clear, let me therefore elaborate. If we grant that visual phenomenology necessitates all aspects of visual content that are phenomenally manifest, then this amounts to the following: for any conscious visual experience x, the representational properties of x that represent phenomenally manifest features are necessitated by the phenomenal property of x. If we now had a counterexample to the supervenience claim, this would consist in two experiences that differs in representation of phenomenally manifest properties while having the same phenomenology, call the two experiences e₁ and e₂, the two representational properties R₁ and R₂ and the shared phenomenal property P₁. The point is now that if this is the case, then it also breaks with the necessitation assumption, hence we cannot provide a counterexample to the supervenience claim without breaking with the necessitation claim. To see this, consider e₁ with R₁ and P₁. Since we are only interested in representation of phenomenally manifest properties, assume that R₁ represents all that P₁ only represents phenomenally manifest properties while having the same phenomenology, then R₁ only represents R₁ and P₁. Since we are only interested in representation of phenomenally manifest properties, assume that R₁ represents all that P₁ necessitates on our assumptions. Consider now e₂ with R₂ and P₁. R₂ differs by stipulation from R₁ in representation of phenomenally manifest properties. Since P₁ necessitates R₁ this is problematic: we cannot take R₂ to represent “less” than R₁, since all aspects of R₁ is necessitated by P₁. Perhaps we can think of R₂ as an “expansion” of R₁, i.e. we just add some further representation of phenomenally manifest features? Assume for reductio ad absurdum that this is so, then R₂ represents all that R₁ represents, just a bit more. This breaks down when doing the same reasoning just the other way: P₁ should, on our assumption, necessitate R₂, hence R₁ cannot represent “less” than R₂. In other words, since R₁ and R₂ both only represent phenomenally manifest features, and no one can “represent less” than the other, they must represent the same. In other words, we cannot construct a counterexample to the supervenience claim that is consistent with the assumption about necessitation.} I take this to be the core view regarding visual content for those with great faith in the Phenomenal Duplicate Intuition, that is, for those within PIRP. I call it Phenomenal Supervenience:

\textbf{Phenomenal Supervenience:} representational properties representing phenomenally manifest features supervene on phenomenal properties.

Compared to Representational Supervenience, this is supervenience just “the other way around”. Further, Representational Supervenience does not have a restriction to the phenomenally manifest. In the following, we will see how these two views interact with each other. The core insight, which will be articulated in section 2.3.3, is that Representational Supervenience and Phenomenal Supervenience stand and fall together. This is the Modal Correlation thesis.

\section{2.3 Modal Correlation}

According to Representational Supervenience (taking the place of Representationalism), phenomenal properties supervene on representational properties. According to Phenomenal Supervenience (taking the place of PIRP), representation of phenomenally manifest properties supervenes on phenomenal properties. Taking them together would imply the following:

\textbf{Modal Equivalence:} phenomenal properties and representational properties are modally equivalent in conscious visual experience, when restricting to phenomenally manifest properties (“modally equivalent” means that there is symmetric supervenience, i.e. a one-to-one correspondence. This is equivalent to the conjunction of Representational Supervenience and Phenomenal Supervenience.)
There is however, a strong challenge to this view in the shape of a thought experiment called Inverted Earth (Block 1990, 1996). The conclusion that Block draws from this scenario is that in the case of perceiving colours, phenomenal properties and representational properties are modally independent, i.e. they can possibly vary independently of each other. Generalizing this conclusion gives us an alternative position to Modal Equivalence, one that is diametrically opposed to close modal correlation:

**Modal Independence:** phenomenal properties and representational properties are modally independent of each other in conscious visual experience, even when restricting to phenomenally manifest properties ("modally independent" means here that there is no supervenience relation either way. This is equivalent to a rejection of both Representational Supervenience and Phenomenal Supervenience).

I think the latter thesis is the way to go if one accepts Blocks version of Inverted Earth, which I will soon present. However, there are those who respond to Inverted Earth and reject that colour representation and colour phenomenology are modally independent. Rather they hold that these two aspects are modally equivalent. In doing so, they can save Modal Equivalence. This makes for a critical choice it appears: Either we should opt for Modal Independence or we should opt for Modal Equivalence.

The structure of the next three sections unpacks the reasoning presented in brief here. First I present the Inverted Earth case and the conclusion Block draws from it: that colour content and colour phenomenology are modally independent of each other (section 2.3.1). Secondly, I present the possible responses to Inverted Earth, those defending Modal Equivalence (section 2.3.2). There are two main approaches here treated in two sub-sections: Phenomenal Externalism (section 2.3.2.1) and Phenomenal Internalism (section 2.3.2.2). This leads me to the third point, the formulation of the Modal Correlation thesis (section 2.3.3):

**The Modal Correlation thesis:** Exactly one of Modal Independence and Modal Equivalence is true.

This thesis plays a crucial role in the arguments put forward in chapter 4. It states, in other words, that we cannot have asymmetric supervenience when restricting to phenomenally manifest features: Either phenomenal properties are modally independent of representational properties or they symmetrically supervene on each other.

### 2.3.1 Inverted Earth

The Inverted Earth scenario is a strengthened version of the inverted spectrum hypothesis. Ned Block was the first to describe it (1990), and he used it to argue that two different subjects can enjoy the same colour phenomenology while representing different colours as instantiated. This would prove that the Phenomenal Duplicate Intuition does not hold for colour experiences, i.e.
that colour representation is not phenomenally intentional. Extended in the natural way, however, this scenario also entails that two subjects can have different phenomenal properties when representing the same colour property as instantiated. Hence it works also as a counterexample to Representational Supervenience. The conclusion would be that colour representation and colour phenomenology is modally independent.

This is how Block describes the case. We are asked to imagine another planet far away from Earth on which everything is as it is on Earth except for the fact that everything has inverted colours: grass is red, blood is green and the sky is yellow. (What colours actually are is a matter of dispute. However, in the context of Block’s example, it is clear that he thinks of them as external physical properties, probably as the disposition to reflect light of such and so wavelengths. This is also what I will mean by “colour” in the following). However, on this planet, the inhabitants’ use of colour words is also inverted. This means that they still call the sky “blue” and blood “red”, though the reference of their words is not the same as ours. Block asks us to imagine a normal human being born and raised on Earth. When she looks towards the sky she has the phenomenal property characteristic of our experiences of blue, call it P-blue (for phenomenal blue). Further, she represents the sky as blue (i.e. as having this physical light reflectance property), because this is the property that she normally interacts and engages with when watching the sky.

One day in her adult life, some mad scientists knock her unconscious. They insert colour-inverting lenses in her eyes while she is passed out, and change the colour of her skin and hair. Afterwards they send her to Inverted Earth, still unconscious. When she finally wakes up, she is not able to detect that anything strange has happened or that she is now on Inverted Earth. The reason for this is that all events and humans on Earth were mirrored in qualitatively identical (except for colour inversion) events and human beings on Inverted Earth. Hence, there was a niche, as Block calls it, on Inverted Earth where our woman from Earth could fit right in. She took the place of the person corresponding to herself, with the same story and relations to people around her as she had on Earth. Now, Block continues, arguably this person will have the same P-blue phenomenology when watching the sky on Inverted Earth as she did when watching it back home on Earth. The inverting lenses put her in the same state she enjoyed when seeing the blue sky back on Earth when she now looks up at the yellow sky. Since she cannot tell a difference between the two episodes, she takes the sky to be the same.

Now, what about her visual content – is that the same as before? Block argues that with time the content will change. In the beginning, there is a period where the content of her home-environment still prevails, when looking at the sky she represents it as blue (we should note that her experience is therefore inaccurate). But after some time her regular contact and interaction
with the new environment makes her visual content adopt the reference of the inhabitants of Inverted Earth. That is, she represents the sky as yellow, even though her phenomenal properties are the same as when she saw the blue sky back home. In other words, the accuracy conditions of her visual experience have changed so that her experience is now accurate (this is because the sky after all is yellow, and now this is the property that she normally interacts with when looking up at the sky). This line of thought is exemplary of the general externalist idea.

Block takes this to prove that there is a distinction between the phenomenal and representational properties of experience, i.e. they cannot be identical (Block 1990:64). In our case, if Blocks description of this scenario is right, it obviously also serves to show that the aspect of the content of experience that is concerned with colour representation is not necessitated by phenomenal properties.

This scenario, followed to its logical consequences, is also a counterexample to Representational Supervenience. Let us continue the story where we left off, some time after the misplaced subject on Inverted Earth has gone through a complete “intentionality shift”. Now, after this has happened (we do not know when, but Block assures us that it will happen at some point), some inhabitants of Earth return to Inverted Earth to collect her. She is taken on a spaceship and returned home. When she exits the spacecraft back on Earth she still has the inverted lenses installed. How should we describe the situation as our confused subject exits the spacecraft and looks towards the sky? She will arguably experience a P-yellow (for phenomenal yellow) phenomenal property. What about her visual content? Arguably she represents the sky as being blue. The earthlings who greet her at the comeback will have exactly the same intentional content when viewing the sky, but inverted phenomenal properties. Hence, we have a counterexample to Representational Supervenience (and to Representationalism, naturally).

2.3.2 Modal Equivalence and replies to Inverted Earth

Inverted Earth is indeed a puzzling place. The Transparency Intuition and Phenomenal Duplicate Intuition both crumble in face of this exotic landing site. If one were to follow Block in thinking that the modal correlation between phenomenal and representational properties breaks down in the case of colour phenomenology and colour representation, then both Representational Supervenience and Phenomenal Supervenience break down: Block’s reasoning in the Inverted Earth case leads to Modal Independence.

However, there are those who object to Block’s argument, those who want to keep colour content and colour phenomenology modally equivalent as the Phenomenal Duplicate Intuition and the Transparency Intuition suggests. As given above, Blocks position rests on two crucial assumptions: (1) that what enters into the content (i.e. the accuracy conditions) of visual
experience is the stimuli that under normal conditions cause the given experience; call this “the normal cause”. Let us call the kind of content that consists of normal causes for “referential content”. (2) That normal causes can change, while phenomenal properties stay the same, i.e. those two factors can vary independently. Consequently, there are two routes one could take if one wants to hold onto Modal Equivalence, corresponding to which of Block’s assumptions one rejects. I present these two strategies in turn now.

2.3.2.1 Phenomenal Externalism

The first option is to accept (1) but reject (2). This strategy is developed by (the early)42 Michael Tye (1995, 2000; see also Dretske 1995 and Lycan 2001; for an overview see Bourget and Mendelowici 2014). Tye holds Identity: that phenomenal properties are identical with representational properties. Modal Equivalence is a direct consequence of this, and here I consider Tye’s position solely in the capacity of combining Modal Equivalence with the idea that visual content is referential. For the present purposes, let us dub any such position Phenomenal Externalism. Now, how does Tye resist Block’s conclusion? Tye’s response to Inverted Earth is that, if intentional content actually changes, so do phenomenal properties (Tye 2000:123–135).

He does, however, not accept the antecedent of this conditional and rejects that referential content changes in this scenario (Tye 2000:134–140).

How to defend this position? How can Tye claim that the “normal cause” does not change when moving to Inverted Earth? There is a lot that could be said here. Behind my use of the term “normal cause” hides a range of complicated considerations and decades of work on

42 It is worth noting that Tye allegedly has changed his mind radically in his newer writings (see especially Tye 2009). According to the new Tye, phenomenal properties are not identical with representational properties; rather they are identical with the properties that representational properties represent (Tye 2009:119). The difference between Identity and this view is not a difference that is easily extracted, at least not in short summary. And even though Jeff Speaks have claimed that the position of new Tye is just a notational variant of the position of the old Tye (Speaks 2015), Tye wholeheartedly rejects this characterization (Tye 2015). Even though I am sympathetic to Speaks’ reaction, it is hard to ignore the persistent comments from the writer himself. Still, I choose to focus here on the very influential view of old Tye, as this is arguably the most detailed and sophisticated account of Phenomenal Externalism to date. It is in other words the paradigmatic view, and therefore deserves the place it is given here.

43 He makes this plausible by arguing that the subject in question in that case would be misguided about her memories of experiencing things back on earth. Block’s positive reason for thinking that phenomenal properties are the same derives in part from the fact that the subject in question cannot detect any difference between the experience she has of the sky on Inverted Earth and the memory of the experience she had on Earth recalled from memory (1990, 1996). Tye however, responds that we should think our memory fails us in this case (Tye 2000:127). This is intuitive, he says, in the classic externalist cases for the content of thought. If I, unknowingly have been flown to Twin Earth and lived in a specifically suited niche there for many years, the reference of my word “water” adopts XYZ as its referent due to my regular interaction with this material. Were I to speak of “water” from before my travel to Twin Earth, however, I would mistakenly take it to be of the same kind of stuff that I am now drinking on Twin Earth. My memory has lead me astray, as Tye puts it (2000:127). Tye thinks the same applies to the case of recalling perceptual memories: If the representational content of experiencing something you call blue changes, you might recall the old experiences you used to call blue with wrong representational content. And this transfers to phenomenal properties. Hence, Tye upholds the conclusion that if the content changes, then phenomenology changes, unknowingly to the subject.
naturalistic theories of referential content (also called “tracking theories”; for an overview of this literature see both Mendelovici & Bourget 2014 and Montague 2011). I treat this here in a brief way that necessarily will gloss important motivations, but the main idea behind the project is that representations inherit their content from their cause, as this is seen as the main route to making intentionality naturalistically kosher. The problem with this thought is that if every cause is equally “content-fixing”, then nothing could ever misrepresent. Somehow one needs to be able to distinguish the content-fixing causes from the cases of misrepresentation. This is the puzzle that has shaped the literature on this topic, and it is here that we find Tye’s solution.

One suggested solution to the problem of finding the normal cause (this is sometimes called “the disjunction problem”) is that the wrong causes asymmetrically depend on the right causes. This was Jerry Fodor’s suggestion. It builds on the idea that if the law-like connection between normal cause and the relevant mental states were to “break”, then the causal link between the wrong causes and the mental state would also break, but the implication does not go the other way (Fodor 1987: chapter 4; 1990: chapter 4). However, this suggestion will be of no help for Phenomenal Externalism, it appears, since there is nothing in this theory that would allow the traveller in the Inverted Earth case to keep on to the normal cause when submerged in the new environment. However, another influential answer to what distinguishes normal cause might come to the rescue, and this is the teleosemantic theory, which holds that a representation $X$ represents what it has the function to indicate and where “function” is cashed out in biological notions. This means that $X$ represents only those of its causes which has been important in the evolutionary history, and which accounts for the preservation of $X$ in the species. It is (at least in part) a teleosemantic response that Tye rests on when responding to Inverted Earth (Tye 2000:138). Hence, he is not simply stamping his feet when claiming that “normal cause” does not change in the Inverted Earth case: there is a substantial defence to be had here.

Phenomenal Externalism paired with a teleosemantic account of content will quite easily escape the problems of Inverted Earth. In exchange, however, one gets a notorious problem, namely the “Swampman-objection”. Swampman is an imagined creature that by pure luck assembles in a swamp by the strike of lightning, and that is a molecule for molecule duplicate of me (or Donald Davidson in the original case). Now, a teleosemantic theory of content would not be able to ascribe any contentful states to a swamp-person, because it lacks

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44 The Teleosemantic theory also allows for ontogenetic selection, that is, selection of mental states over the lifespan of an individual. The teleosemantic approach was initiated in the 80’s (see especially Millikan 1984; Papineau 1987:chapter 4). Teleosemantics (G. MacDonald and D. Papineau (eds.), 2006) makes for a contemporary collection of essays on the topic.

45 The Swampman was first introduced in Davidson 1987. Davidson did not intend it as a counterexample to teleosemantics. The scenario has later been adopted for targeting “implausible” consequences of this view.
On the Direction of Explanation in Conscious Visual States

If phenomenal properties are modally equivalent (or identical, as Dretske, Lycan and Tye thinks) with representational properties, this will imply that Swamp-Max does not just lack intentional content, but also phenomenal properties. Many find this hard to swallow, but keeping Phenomenal Externalism without a teleosemantic approach to content seems to be hard to square with Inverted Earth. In other words, Swampman is the Scylla and Inverted Earth the Charybdis of Phenomenal Externalism, as Tye puts it (2000:117; see also Bourget and Mendelovici 2014:222 for a similar characterisation of the predicament). 46 I will not go any further with the discussion of Swampman here. This issue seems to constitute a stagnated fight of intuitions. Rather I want to focus on what I think is a more direct challenge to Phenomenal Externalism, namely that states with the same normal cause could have different phenomenal properties even without interferences in the visual system or lacking evolutionary history. That this is possible is made plausible in a series of arguments due to Adam Pautz (2006, 2013a).

2.3.2.1.1 Pautz’ empirical argument against Phenomenal Externalism

Pautz’ project is to disprove Phenomenal Externalism regarding most sense modalities and most phenomenally manifest properties. 47 To this effect, he develops a range of arguments targeting the perception of different properties by different sense modalities in an admirable detail. The arguments display one shared underlying structure that it is interesting to present here:

The aim of the arguments is to show that experiences can differ even though they have the same normal cause. Pautz does this by describing a conceivable scenario involving two different subjects in different environments; both include instances of the same property that the subjects see, taste, smell etc. The next step is to argue that the two subjects can have different experiences when perceiving the relevant property. He makes this plausible by choosing possible subjects that differ in behaviour and postreceptoral processing in relevant ways (Pautz 2006:213). In our case it is natural to take the case of colour as an illustration. Pautz asks us to imagine two different subjects, both with visual systems that are able to track the wavelengths, intensity and other properties of light. However, due to evolutionary differences between the two, they differ in postreceptoral processing. This has the consequence that when they report on whether a colour experience look unary or binary, they differ slightly. They also differ slightly when grouping things of same colour together. All in all, they differ in the relevant ways that makes

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46 It should be noted that Tye also tries to respond to the Swampman-challenge, his view is not purely teleosemantic, but reviewing this falls outside the scope of this chapter. For details about Tye’s proposal see especially (2000:136–140).

47 He understands Phenomenal Externalism as an Identity claim, i.e. that phenomenal properties are identical to representational properties. But this does not matter that much to us, we can, without loss of strength, think of Pautz’ arguments as targeting the purely modal claim that phenomenal properties are equivalent to representational properties with content involving normal causes.
Pautz draw the conclusion that they have a different experience triggered by the same “normal cause” (for Pautz’ detailed walkthrough of this case see 2006:214–228).

Let us say that we accept the verdict different experience in this case. What does it tell us about the phenomenal properties and content of the colour experience? If there is a difference, then this is a difference in either representational properties or phenomenal properties. If we insist that the content of experiences is referential and therefore shared across the two experiences, then any difference between the two must be a difference in phenomenal properties. This means further that we break with Modal Equivalence, since we take phenomenal properties to vary independently of representational properties. Alternatively, we can keep Modal Equivalence. This means, however, that there is a difference in both representational properties and phenomenal properties. Hence, we would have to reject that visual content is referential. Either way, we end up with a counterexample to Phenomenal Externalism.

Now, it is crucial for Pautz’ argument that the two subjects figuring in it function in normal circumstances in the environment where they evolved, that there is no “environment shift” involved like in the Inverted Earth case. This is to ensure that both have the same property as “normal cause”. If one is to hold Phenomenal Externalism, one must face the challenge from Pautz head on and deny that there is any difference in experience in the cases he describes. I think this response is implausible. To the extent of my judgment Pautz’ argument is sound.

2.3.2.2 Phenomenal Internalism

There is an alternative way to save Modal Equivalence from Inverted Earth and similar counterexamples that differs radically from Phenomenal Externalism. This route involves accepting that normal cause might vary independently of phenomenal properties, thus one would have to reject that the content of experience is referential content (i.e. one accepts Block’s assumption (2) and rejects (1)). Let us call this position Phenomenal Internalism. The problem is now to find something other than normal causes that might serve as the content of colour experiences. Here Chalmers offers two suggestions (2010b). (Notably though, his position in this paper is Content Pluralism, i.e. that experience have many different forms of content. He therefore endorses both, but here we can assess them independently of that commitment.)

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48 This mirrors the Inverted Earth case, and could probably be Block’s reply to Pautz. It “mirrors” this in the sense that it has a corresponding but inverted structure: content stays the same while phenomenal properties differ.

49 Content Pluralism is an interesting position. It is motivated by the idea that we might not find one theory able to do justice to absolutely every accuracy intuition we have. If so, then we should expect some debate over what intuitions to give most weight. Competing theories stand in a relationship of trading off intuitions against each other, the winning one should be the one with the most and the heaviest intuitions on their side. But if no one theory is completely accurate relative to our pre-theoretic intuitions, why not think that we can ascribe content in many different, but equally legitimate ways? This is Content Pluralism. Both Chalmers and Pautz endorse it.
The first option that Chalmers puts forward is that visual content does not consist in normal causes, but rather of modes of presentation of these. Take colour as an example. If one has an experience with the phenomenal property that I have when seeing red things, then the mode of presentation that is shared across every phenomenally identical experience would be: “the property that normally causes phenomenally red experiences (in normal conditions for the perceiver).” (Chalmers 2010b:391). Let us call this the Fregean view. On this suggestion, every P-red experience shares an aspect of their content, namely that of representing the property that is a normal cause for experiences with that phenomenal property.\textsuperscript{50} The property that is presented in this way might be different for different perceivers; this depends on what the normal causes of their visual states are. In other words, as the normal causes change for the subject on Inverted Earth, so do the properties that are presented by her visual experiences modes of presentation (hence, the modes of presentation under discussion are not de re, or object dependent).\textsuperscript{51} Chalmers’ second suggestion is to think of the colours represented in visual experience as perfect “Edenic colours”, properties that are simple, primitive and intrinsic. On this view colours are understood “naïvely” as what they appear to be. Let us call this the Primitivist view. This is notably also Pautz’ position on colour representation (2006). The strength of this view is

\textsuperscript{50} There are interesting parallels between this view and Sydney Shoemaker’s work on colour experiences (see Shoemaker 1994, 2000). Shoemaker thinks it is possible that two different subjects could veridically perceive the same object, while enjoying different colour phenomenology. He also holds that colour phenomenology exhibits something close to the Transparency Intuition, i.e. we take it to present us with properties of external objects. The way Shoemaker makes these two desiderata consistent is by taking colour experiences to attribute relational properties (dispositions, in his 2000): the property of producing intrinsic quality Q1 in creatures with such and so visual systems. At one point, Shoemakers characterizes the way the phenomenal property stands to the attribution as a “mode of presentation” (1994:29). The most obvious difference between Chalmers’s view and Shoemakers proposal is that Chalmers takes the mode of presentation to also include the qualification that the phenomenal property be produced under normal conditions in the perceiver. Shoemaker doesn’t want this. The reason, I gather, is that he thinks this would preclude different subjects from enjoying the same mode of presentation (see Shoemaker 1994:33–34). But is this really a problem? If the mode of presentation includes something like an indexical (“producing phenomenal property Q1 in me”), would this not make the layer of mode of presentation the same across different subjects, if we do not understand modes of presentation in a de re, or object dependent sense? I think so (for details on de re modes of presentation, see next fn.).

\textsuperscript{51} There is an important tradition in the philosophy of mind that takes the content of perception to be Fregean, in the sense that it is constituted by modes of presentation of external objects and properties, but that takes these modes of presentation to be de re in the sense that different referents cannot be presented by the same mode of presentation. This is equivalent with saying that mode of presentation (or sense) determines reference, understood as supervenience: reference supervenes on modes of presentation. One way of modelling such modes of presentation is to take the object (property) that a singular term refers to (predicate expresses) as a part of the mode of presentation. The classic exponents of this kind of view are McDowell (1984) and Evans (1982), for a direct application to the content of perception see for instance McDowell (1986; see also 1994b for more on the motivations for this view). I will not discuss this approach to perceptual content further here, as it seems to be disentangled with the question of the explanatory relationship between phenomenal and representational properties.
that it is the most phenomenologically apt view (Chalmers 2010b:398). However, the drawback is also substantial:

For all its virtues with respect to phenomenological adequacy, the Russellian primitivist view has a familiar problem. There is good reason to believe that the relevant primitive properties are not instantiated in our world. That is, there is good reason to believe that none of the objects we perceive are perfectly red or perfectly green. If this is correct, then the primitivist view entails that all color experiences are illusory. (Chalmers 2010b:398)

As Chalmers says, the physical objects that we attribute colour properties to do not have Edenic colours. Hence, if one were to hold this position, then no colour experience would ever be accurate. This seems quite strange. Surely, we want to say that some colour experiences get it right; we are not always and necessarily misguided by our colour experiences. I think this intuition is strong, but not decisive. Usually in philosophy, common sense counts heavily when there are intuitions at play, but it is not at all clear that common sense would find the massive colour-illusion that is implied by the Primitivist view objectionable. Thus, both the Fregean and the Primitivist view enjoy some plausibility if Modal Equivalence is right. Later we will see that the choice between the two is not neutral with respect to what explanatory relation holds between phenomenal properties and representational properties, but I return to this in chapter 4.

2.3.3 The Modal Correlation thesis

We have seen above two diametrically opposed views concerning the modal correlation in place between representational properties and phenomenal properties in visual experience when restricting to phenomenally manifest properties: Modal Independence and Modal Equivalence. The motivation for the first stems from the ideas that are manifest in Block’s reasoning in the Inverted Earth case. That is, one takes visual content to be referential, consisting of normal causes, and take this to vary independently of phenomenal properties. The motivation for the latter seems to be a confidence in the Transparency Intuition and the Phenomenal Duplicate Intuition together. That is, Modal Equivalence is motivated by the idea that what it is like to undergo a visual experience is closely connected to how one represent the world as being when in that state. Two very different views are compatible with Modal Equivalence: Phenomenal Externalism and Phenomenal Internalism. The latter split further into two sub-species: the Fregean- and the Primitivist view. I think the choice between Modal Independence and Modal Equivalence is a true dichotomy; i.e. exactly one of them is true:

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52 Could there be a possible world where “Edenic colours” are instantiated in physical objects and plays the role that light reflectance properties do in our world? If so, colour experiences are not merely illusory, only contingently illusory. This is Chalmers’ view; he thinks “Eden” is a possible world (2010b).
The Modal Correlation thesis: Exactly one of Modal Independence and Modal Equivalence is true.

Why think this is a choice between symmetric supervenience (Modal Equivalence) and no supervenience at all (Modal Independence)? Why not think that this can be a case of asymmetric supervenience? The two views ruled out by the Modal Correlation thesis are these:

**Asymmetric Representationalism**: phenomenal properties supervene on representational properties, but representational properties representing phenomenally manifest features do not supervene on phenomenal properties (i.e. one accepts Representational Supervenience, but rejects Phenomenal Supervenience).

**Asymmetric PIRP**: representational properties representing phenomenally manifest features supervene on phenomenal properties, but phenomenal properties do not supervene on representational properties (i.e. one rejects Representational Supervenience, but accepts Phenomenal Supervenience).

Establishing the Modal Correlation thesis is equivalent to showing that these two views are implausible. This, however, requires substantial argument. The rationale behind the Modal Correlation thesis splits into two parts corresponding to the two views we are ruling out: (1) it is implausible to hold Asymmetric Representationalism; (2) it is implausible to hold asymmetric PIRP. I treat them in turn.

(1) Why is it not plausible to hold Representational Supervenience, while rejecting Phenomenal Supervenience? To see this, assume that we have Asymmetric Representationalism: one example that at first glance appears to support this position is, as we have seen, Inverted Earth. Block’s description of this case gives us phenomenal duplicate experiences with different normal causes. Taking visual content to be referential would in this case disprove Phenomenal Supervenience. The problem is, however, that Inverted Earth also leads to a counterexample to Representational Supervenience (experiences with the same representational properties, but different phenomenology). Therefore, we cannot use Inverted Earth as a mean to establish Asymmetric Representationalism. This demonstrates the core insight that the rejection of Asymmetric Representationalism rests on: if one adopts a view where Phenomenal Supervenience fails, then one will also break with Representational Supervenience.

This can easily be demonstrated for properties other than colour as well. Take as an example the phenomenal properties of shape-experiences. Let us assume that one could have a particular shape phenomenology, call it $P_1$, when representing in some cases the shape $S_1$, and in other cases the different shape $S_2$. If so, then we see that the representational property representing these two different shapes does not supervene on phenomenal properties, since different contents can share phenomenology (i.e. this situation witnesses the negation of Phenomenal Supervenience). Now, my claim is that it is implausible to hold this together with Representational Supervenience. The reasoning goes as follows. Consider the phenomenal
property \( P_1 \) in relation to the shape that is represented. There are now four options concerning this relationship, all of which makes Representational Supervenience implausible: (a) one could think that the character of \( P_1 \) “corresponds” more closely to \( S_1 \) than \( S_2 \) (e.g. \( P_1 \) is phenomenally square, \( S_1 \) is a square and \( S_2 \) is a slightly stretched rectangle); (b) one could think this is the other way around, \( P_1 \) corresponds more closely to \( S_2 \) than \( S_1 \); (c) \( S_1 \) does not correspond most naturally to any of the two shapes represented; (d) \( P_1 \) is vague and therefore in a sense indeterminate about which shape property it lines up with.

Remember, in order to hold on to Representational Supervenience, the options sketched above must in each case hold necessarily, i.e. if (a) is actually the case (\( P_1 \) lines up with \( S_1 \) more than \( S_2 \)) then this is necessarily so. If not, if we sometimes have (a) and sometimes have (b), then the phenomenal property changes independently of representational properties and hence, we break with Representational Supervenience. It is, however, very implausible to hold that one of (a) – (d) holds necessarily. First off, (a) and (b) can be dismissed right from the very start: If it is possible for an experience to represent a slightly stretched rectangle, but to be accompanied by a phenomenal property that corresponds more naturally with a square, then it is certainly possible that one could have an experience representing a square that is accompanied by a phenomenal property that corresponds more naturally with a slightly stretched rectangle. There are no unexplained asymmetries in the space of possible worlds. Secondly, (c) seems very strange: Why think that the phenomenal property when viewing a shape must necessarily be a mismatch with the shape seen? Why not think that the phenomenal property could line up with squareness when representing this property?

(d) is a bit different, since one might think that the phenomenal property is just not “sharp enough”, as it were, to assess whether the phenomenal property lines up more closely with \( S_1 \) than \( S_2 \). There are two points to be made here: (1) even if some experiences might have vague shape phenomenology in this way, it is strange to hold that this is necessarily so. Why not think that it is vague sometimes, while other experiences representing the same shape can have “sharp” phenomenology? If so, then this breaks with Representational Supervenience, since experiences with the same representational properties sometimes have vague and sometimes have sharp phenomenology. (2) If it is conceded that the phenomenal property for some reason necessarily is too vague to be assessed for correspondence with the shape that one sees, then it seems reasonable to question whether the representation actually is determinately that particular shape and not just a vague shape glossing the distinctions between the two shapes \( S_1 \) and \( S_2 \).

If one accepts the reasoning up to this point, the conclusion is this: If it is possible that one can represent different shapes or colours with experiences that are phenomenal duplicates,
then it is very implausible to hold onto Representational Supervenience. The point made above regarding shapes mirrors the structure of the Inverted Earth case: We assume something that allows us to reject Phenomenal Supervenience, but this will in turn also prove Representational Supervenience wrong. In other words: Asymmetric Representationalism is not a plausible view.

(2) This leaves Asymmetric PIRP. Why should we also believe that this position is implausible? Asymmetric PIRP is equivalent to the claim that phenomenal properties are more finely grained than representational properties representing phenomenally manifest features: every time there is a difference in those representational properties there is a difference in phenomenal properties, but there can be differences in phenomenal properties without differences in representational properties.

Assume that Asymmetric PIRP is the case. On this assumption, there must be at least two experiences that differ with respect to phenomenal properties, which nevertheless are just the same in terms of representing phenomenally manifest features (i.e. two experiences witnessing the rejection of Representational Supervenience). Take any two experiences satisfying this assumption; this gives us two experiences with the same representational property $R_1$, but with different phenomenal properties $P_1$ and $P_2$. There are two quite different ways in which this

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53 Actually, a thought experiment that mirrors Inverted Earth has been described for the case of shapes. In this scenario, called “El Greco World” by Thompson (2010). The relevant Twin Earth we have to imagine is one where everything is stretched out in the relation 2:1 from the centre of the planet. This means that things constantly change their shapes when changing rotation relative to the direction of stretch, as Thompson describes it: “A person who is six feet tall (head to toe) while lying down on El Greco World, becomes twelve feet tall after standing up.” (Thompson 2010:176). Thompson claims that it is possible for subjects on El Greco World to have experiences corresponding to those we have here on Earth that are phenomenal duplicates of our experiences of an unstretched world. That is, when I see a ball here on Earth, my counterpart on El Greco World sees a ball that has the shape of an egg (it is stretched); nonetheless he has the same phenomenology as me. Thompson argues that this is possible and further that my counterpart’s experiences could be accurate/veridical. If we take visual content to be referential, then this means that the experiences that share shape phenomenology can represent different shapes, i.e. it breaks with the Phenomenal Duplicate Intuition regarding shape properties, and thus with Phenomenal Supervenience.

However, if we take this approach, then this scenario delivers all the resources we need for a counterexample to Representational Supervenience as well, just as Inverted Earth did: Consider a third possible world, “El Greco World Nr. 2”. This world is exactly like El Greco except for the fact that the phenomenal properties of the subjects on this world is just like the phenomenal properties we Earthlings would have if we were moved to El Greco World, i.e. it is stretched. This is surely just as possible as the original scenario. Further, we have just the same reasons for thinking that the content of those subjects would be veridical. Consider now my counterpart on El Greco again, perceiving a stretched ball (call him Max2) and compare him to my counterpart on El Greco World Nr. 2, also perceiving a stretched ball (call him Max3): Max2 and Max3 have experiences that differ in phenomenology, but that are veridical of a similar situation. Taking visual content to be referential would make the two experiences represent the same physical property being egg-shaped. Again, the verdict is clear: we cannot make the same phenomenal property accompany states that represent different phenomenally manifest features (that is, break with Phenomenal Supervenience) without also breaking with Representational Supervenience.

As was the case with colour, it is of course possible to keep Modal Equivalence between shape phenomenology and shape properties in face of El Greco World. The most straightforward response is again a Fregean view using the phenomenal property as a mode of representation of the normal cause of the experience. On such an account, it is only Max2 and me that share visual content when viewing “balls” in our respective environments. We both share the mode of presentation: being of the shape that causes phenomenal roundness. Max3 has a different mode of presentation: being of the shape that causes phenomenal “egginess”.

can be imagined to be the case: (1) one could describe a case in which $P_1$ and $P_2$ differs in a way that naturally is taken to go with a difference in content, but that nonetheless does not. An example of this would be this case: $P_1 = \text{P-red}$, $P_2 = \text{P-green}$ and $R_1 =$ representing in a conscious visual manner that there is something red. (2) Alternatively, one could describe a case in which $P_1$ and $P_2$ differ in a way that is not at first glance relevant for content change. Relevant suggestions here are the phenomenal difference between seeing a scene blurrily and the same scene sharply, and the phenomenal difference that goes with covert shifts in attention.

I think both these strategies fail in establishing Asymmetric PIRP, that is, they do not succeed in breaking with Representational Supervenience at the same time as keeping Phenomenal Supervenience a live option. However, they fail for different reasons: (1) might show that Representational Supervenience is mistaken, but if so, then it also breaks with Phenomenal Supervenience. (2) Fails to show that Representational Supervenience is wrong in the first place.

First point first. We can quite easily come up with scenarios that make phenomenal properties vary in a way that we pre-theoretically think goes naturally together with content shifts (e.g. change in colour phenomenology, change in shape phenomenology, etc.) while referential content can stay the same: consider the inverted spectrum scenario. It might be possible that different subjects could enjoy different phenomenal properties when experiencing the same physical colour (light reflectance properties) in normal circumstances. Let us say that Subject 1 enjoy $P_{\text{red}}$ while Subject 2 enjoy $P_{\text{green}}$, when seeing ripe tomatoes in normal circumstances for both. This is the case when the space traveller in the Inverted Earth scenario, for instance, returns to Earth with colour inverted lenses still in place. Taking content to be determined by normal cause, i.e. the physical colour one sees, would give us an instance of (1).

The problem for Asymmetric PIRP, however, is that this approach makes the connection between phenomenology and representational properties representing phenomenally manifest properties too loose. There is nothing left that makes Phenomenal Supervenience plausible when rejecting Representational Supervenience in this way. If two distinct subjects could undergo $P_{\text{red}}$ and $P_{\text{green}}$ respectively when seeing something red (in normal circumstances), then it is also plausible that two distinct subjects could undergo $P_{\text{red}}$ and $P_{\text{green}}$ when seeing something green. This way Phenomenal Supervenience fails. The corresponding point could surely be made for shapes and other properties as well. Hence, the first route to Asymmetric PIRP fails because this way of breaking up Representational Supervenience also breaks up Phenomenal Supervenience; the view lapses into Modal Independence.

According to the other route, phenomenal properties such as $P_{\text{red}}$ and the representation of red, or $P_{\text{square}}$ (for phenomenal squareness) and representation of squareness,
are modally equivalent; it is just that phenomenal properties also can vary in ways that do not appear to be representational changes. What sort of changes could this be? We have actually already seen the relevant suggestions in section 2.1.2: One might think for instance that phenomenal properties can be more or less “blurry” without a change in representational properties, one might also think that covert attention shifts make a difference to phenomenology without a corresponding difference in representational properties. As presented in that section, I do not believe that these suggestions break with Representational Supervenience in the first place. Covert shifts in attention bring with them a difference in representational manner. One represents the given content in a manner with such and so priority structure. Phenomenal changes due to blurry vision corresponds, I believe, straightforwardly to a difference in content (see fn. 24). If these cases do not break with Representational Supervenience, then they cannot support Asymmetric PIRP in the first place. Hence, I take it that also Asymmetric PIRP fails.54

If both Asymmetric Representationalism and Asymmetric PIRP are ruled out, then this leaves Modal Independence and Modal Equivalence as the only options left; hence, we have the Modal Correlation thesis. There are many considerations to take into account when comparing these two positions. First one has to consider what the nature of contents is: referential, Fregean, Primitivist or others. This is something that cannot be decided by purely philosophical reflection, I believe; empirical considerations also have a saying here. Anyway, the nature of visual content should be assessed together with the strength of the Transparency Intuition and the Phenomenal Duplicate Intuition. Giving these two intuitions considerable weight leads to Modal Equivalence (if Pautz’ argument against Phenomenal Externalism is sound, then this means further that visual content is not referential). Giving them less weight leaves the path open to Modal Independence.

The theoretical crossroad that the Modal Correlation thesis makes up is naturally very important for the answer to our main question. We will see later that Modal Independence is the route to Independence, while Modal Equivalence leads to one of Identity, Phenomenology-first

54 One might wonder why I focus so much on referential content when discussing the two asymmetric supervenience views. There is, however, a good reason for this: When trying to establish one of the asymmetric views, one needs to break with supervenience one way, that is, one must reject either Representational Supervenience or Phenomenal Supervenience. The most straightforward way of doing this is in the spirit of Inverted Earth: to let normal cause and phenomenal properties vary independently of each other and take visual content to consist of normal cause. If one were to go the other way, take a Fregean view for instance, then it would be very strange to think that supervenience fails in any direction. The reason is that the Fregean view uses phenomenal properties as modes of presentations of the properties that one is in causal connection with through visual states. If these modes of presentation make up what we call the content of visual experience, then this surely must go together with Modal Equivalence: Every change in phenomenal properties would be a change in mode of presentation and hence in content; every change in mode of presentation would imply a change in phenomenal properties since these are used in constructing the modes of presentation. In other words, the Fregean view discussed in this thesis is built to fit Modal Equivalence. This is also the case with Primitivism (this is evident form the fact that adherents of Primitivism often adopt the Identity view. Modal Equivalence is of course a direct consequence of Identity).
and Intentionality-first. I will return to this later. However, it is important to note that I do not take a strong position on which of the disjuncts of this thesis, Modal Equivalence or Modal Independence, to take. My job is rather to develop the consequences that adopting each of them would have regarding the four possible answers to our main question.

2.4 Modality and the strict-priority views

We started this chapter by considering Representationalism and PIRP. These positions are interesting, because they appear to capture the strict priority views in modal notions. In this section, I will pick up this thread: Do Representationalism and PIRP in any sense capture the strict priority views? Representational Supervenience is closely related to Representationalism, but is more plausible due to the way in which it can solve the problem with covert shifts in attention. In the remainder of this chapter, I will therefore talk of Representational Supervenience in place of Representationalism. We have also seen, in the sections above, that PIRP should be understood as Phenomenal Supervenience when considering conscious visual states. I will therefore also talk of Phenomenal Supervenience in place of PIRP. The main point to be argued for in this section is that Representationalism and PIRP do not capture the strict-priority views, in other words that Representational Supervenience and Phenomenal Supervenience do not capture Intentionality-first and Phenomenology-first respectively.

This section has three stages: (1) Representational Supervenience and Phenomenal Supervenience are compatible with each other and both accord with Identity; (2) the Modal Correlation thesis implies that there is no asymmetry between representation of phenomenally manifest features and phenomenology that can be captured by purely modal ideology; (3) even if there were such an asymmetrical modal correlation, for instance asymmetric supervenience, there will never be an implication from this to a strict metaphysical priority-view. These three points in combination show that we need to go beyond mere modal ideology in order to capture the strict-priority views that were singled out in chapter 1. In the end of this section I introduce the notion that I think fills this role: grounding.

(1) Is quite easily seen. I have already shown that Representational Supervenience and Phenomenal supervenience can be combined and that their conjunction makes up Modal Equivalence. Hence, they are not incompatible and thus fail to capture the two strict-priority views. Further, they are compatible with Identity as both Representational Supervenience and Phenomenal Supervenience are direct logical consequences of this position: the identity relation is a one-to one-correspondence, and is therefore a supervenience relation “both ways”. In other words, Representational Supervenience and Phenomenal Supervenience do not capture any strict-priority view.
(2) Since we have the Modal Correlation thesis, we either have both Representational Supervenience and Phenomenal Supervenience, or we have neither. Hence, there can be no asymmetry in purely modal terms that might be relevant for the strict-priority views. Supervenience runs either both ways or none.

(3) Even if (2) were not the case, i.e. if asymmetric supervenience (or other modal asymmetries) hold, this would still not imply a strict metaphysical priority view. Why is this? Jaegwon Kim formulates this very precisely in his discussion of whether property covariance (in this context, this is another name for supervenience) suffices for a metaphysical dependence relation between two domains of properties. This is not so, he says, even when a domain A asymmetrically supervenes on another domain B. The reason is that A and B might both depend on some further domain of properties C which actually explains the variation in both A and B (Kim 1993:146). As Kim says:

Property covariation per se is metaphysically neutral; dependence, and other such relations, suggest ontological and explanatory directionality – that upon which something depends is ontologically and explanatorily prior to, and more basic than, that which depends on it. In fact we can think of the dependency relation as explaining or grounding property covariation. (Kim 1993:148)

I take this to show that no modal correlation could truly capture the strict-priority views presented in chapter 1: Modal correlation is just a surface phenomenon, the result of explanatory deep relations. In fact, the relationship between modality and strict metaphysical priority is a perfect analogue to the relation between correlation and causation: just as we can never get from modal correlation to strict metaphysical priority, we cannot get from correlation to causation.

In the next chapter I will review the literature on a notion that I think captures what I have called strict metaphysical priority up until now. This is the notion of “ground”. Ground is an asymmetric hyperintensional relation. “Hyperintensional” means, in this case, that it carves finer than modal ideology; this will be explained closer in chapter 3. Further, ground is exhaustive of metaphysical explanation. “Exhaustive” means here that all and only cases of grounding are cases of metaphysical explanation. As we will see, grounding implies necessitation (a “general grounding claim” implies supervenience). The consequence is that Representational Supervenience and Phenomenal Supervenience could truly be seen as precursors for the strict priority views: The Phenomenology-first view agrees with Basic PIRP, but the position is much stronger by giving strict priority to phenomenology, something that Basic PIRP cannot do on its

55 Usually one takes property covariance spelled out in a certain way to be exhaustive of the concept of supervenience. I follow this use. Kim however, does not straightforwardly equate the concept of supervenience with property covariance, but discusses whether other more demanding criteria, such as dependence, should be part of the concept. We can, however, put that aside for now, as the standard way of understanding supervenience is as property covariance spelled out with the usual modal concepts.
own. Likewise, the Intentionality-first view agrees with Representationalism, but further gives strict priority to the representational properties. In the context of the next chapter I will call the two views **Phenomenal Ground** and **Intentional Ground** respectively:

- **Phenomenal Ground:** the fact that one instantiates a representational property representing phenomenally manifest features when in a conscious visual state is grounded (at least in part) by the fact that one instantiates a phenomenal property when in that same state.
- **Intentional Ground:** the fact that one instantiates a phenomenal property when in a visual state is grounded (at least in part) by the fact that one instantiates a representational property when in that same state.

The observant reader will notice the subtle asymmetry in the formulation of these positions, i.e. the restriction to phenomenally manifest features in Phenomenal Ground, but not in Intentional Ground. This derives from the fact that Phenomenal Supervenience only holds with this restriction (cf. section 2.2.3, on “Phenomenally manifest features”). Since no phenomenal properties plausibly necessitate those aspects that are not phenomenally manifest, they are not plausibly grounded in phenomenal properties alone (this will become clearer in chapter 3, though it is worth flagging already here).

### 2.5 Chapter summary

In this chapter I started investigating what the explanatory relationship is between phenomenal properties and representational properties of visual perceptual states. Two traditions where examined, each appearing to map onto our pre-theoretical Intentionality-first and Phenomenology-first views: Representationalism and PIRP, respectively.

Representationalism is the view that minimally holds that phenomenal properties supervene on content. A more plausible view was that phenomenal properties supervene on representational properties (distinguished using both manners and contents). I called this Representational Supervenience. The Transparency Intuition is what motivates this position. The basic phenomenal intentionality thesis (Basic PIRP) is that at least some states have *phenomenal intentionality*. How to understand this notion in the literature is not clear, but I argued that from the main arguments that support the tenet, we should understand phenomenal intentionality to be intentionality that is metaphysically necessitated by phenomenal properties. The Phenomenal Duplicate Intuition motivates the idea that there is phenomenal intentionality.

In the setting of this thesis, we should take the Phenomenal Duplicate Intuition to suggest that phenomenal properties of visual states necessitate some aspects of those state’s content. The question is then to what extent this is plausible, which aspects are so necessitated? I argued that this should only be considered to hold for *phenomenally manifest features*. We should
therefore take PIRP to be committed to the claim that representational properties representing
phenomenally manifest properties supervene on phenomenal properties. I called this
Phenomenal Supervenience.

The Inverted Earth scenario described by Block challenges Phenomenal Supervenience.
I further argued that if Inverted Earth is a successful counterexample to Phenomenal
Supervenience, then it is also a counterexample to Representational Supervenience. This led to
the idea that these two stand and fall together, i.e. we have the Modal Correlation thesis: either
we have Modal Independence or we have Modal Equivalence. I then explored what kind of
content assignments were compatible with Modal Equivalence, presenting both Phenomenal
Externalism and Phenomenal Internalism. The way I see it, Pautz’ argument against Phenomenal
Externalism strongly suggests adopting Phenomenal Internalism when taking this disjunct of the
Modal Correlation thesis.

In the end I argued that Representational Supervenience and Phenomenal
Supervenience are not incompatible as one could prima facie think. They are both consistent
with Identity. But even more generally, no purely modal position can capture the strict priority
views, I argued. In the next chapter I will present a concept that succeeds in this respect, the
notion of ground. In contrast to modal ideology, the grounding framework will allow us to
capture the strict-priority views.
3 The Grounding Framework

What does it mean to say that the fact that I enjoy this phenomenal property is grounded in the fact that I represent a certain colour a certain way? What does it mean to say that the fact that I represent a certain colour a certain way is grounded in the fact that I instantiate a phenomenal property? I ended chapter 2 by claiming that the notion of ground could capture the strict-priority views singled out in chapter 1. This chapter aims at providing an understanding of this notion, an understanding that is necessary in order to assess the relative plausibility of the four possible positions one could take with respect to our main research question.

We often come across claims of the form that “something is the case in virtue of something else being the case”, or that “something is such because something is so”. Sometimes the latter phrases are used to express causal connections or explanations in the world, as in “the billiard ball moved because you hit it”, but sometimes we use it in non-causal explanations, or to pick out non-causal determination relations. This happens both in theoretical philosophy and in everyday language use. Examples of the first case could be philosophers of mind trying to formulate a version of materialism: something is conscious in virtue of its neurological properties. Examples of the latter could be a moral judgement to the effect that a certain person’s action was wrong because he broke a promise.

In these cases, we do not intend to say that the neurophysiological properties cause the conscious properties (the dualist might want to say that, but not the philosopher of a physicalist persuasion), neither do we want to convey the obviously false claim that the fact that a certain person broke a promise caused the wrongness of the action; causation is a temporal matter, these cases are not. Still, some philosophers want to say that many of these sentences are both true, explanatory and share something important. The metaphysical notion of grounding is often introduced as an attempt to unify an important class of these cases.

As is evident from this introduction, it is common to think of the grounding relation as a relation between facts (Fine 2012:43; Audi 2012:103). I take a fact to be obtaining states of affairs (following Audi 2012, and Fine 2012). Importantly, this means that a fact is not the same as a true proposition, in a relevant sense: States of affairs are constituted by objects instantiating properties. Take for instance the fact that David Chalmers is Australian. This fact is constituted

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56 Though Schaffer 2009 is a prominent exception.
57 It should be noted that there is a discussion of whether grounding claims should be expressed using a predicate or a sentential operator due to ontological considerations. The operator reading is thought to be less ontologically demanding when it comes to the existence of entities as facts and properties. But this is not an issue that will be important here. I am assuming an ontology of objects, properties, relations, facts and propositions. For those with ontological scruples concerning these categories, I ask only for a friendly reinterpretation.

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by an object, David Chalmers, and a property, being Australian. If one thinks propositions are Fregean, complexes of senses, or modes of presentations of objects and properties, and not these objects and properties in themselves, we see that several distinct propositions might pick out the same fact: The following proposition, The author of The Conscious Mind is Australian, picks out the same fact as the proposition David Chalmers is Australian, since David Chalmers actually is the author of The Conscious Mind. But they differ as propositions on the Fregean view. If, however, one takes propositions to be Russelian, i.e. complexes of worldly constituents as objects and properties, then we might think of facts as true propositions. We will see later in this chapter how this makes cases of reduction (on my view, at least), different and incompatible with cases of ground. In the following I will adopt the symbolism of Fine (2012) and signify ground, or the in virtue of-relation, by this symbol: <. I use it like this:

A < B = df the fact A grounds the fact B (alternatively: B is the case in virtue of A being the case).  

3.1 Ground and modality

In this section I consider the relationship between grounding and modal notions like necessitation and supervenience. I argue that ground implies necessitation. This leads further to the idea that a general grounding claim implies supervenience. At the end of the section I consider and dismiss a challenge to Entailment.

Grounding is intended to capture the sense in which a fact, B, is the case in virtue of or because A is the case. If so, what implication does saying that A is grounded in B have for the modal connection between these two facts? In the literature, it is widely assumed that a grounding claim implies necessitation (e.g. Rosen 2010:118; Fine 2012:39). This means that if B is grounded in A, then it is metaphysically impossible for A to be the case without B also being the case. I call this link ‘Entailment’ (following Leuenberger 2014 and Litland 2015):

Entailment: A < B → □ (A → B)

One might think that this gives promise of analysing ground in terms modal notions, but this is generally considered to fail. Ground captures strict metaphysical priority, we saw already in chapter 2 that purely modal notions fail to capture this. The reason is that modal concepts are too coarse grained, i.e. they gloss distinctions that talk of grounding needs to distinguish. There will

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58 Note that the grounding relation is most plausibly taken to hold between sets of facts as ground and singular facts as grounded. Fine explores briefly whether the ground can also be the empty set (2012:48). Sometimes I will speak as if properties ground other properties, as in “the phenomenal property of a state grounds the representational property of the same state”. This does not mean that properties can be the relata of the grounding relation, rather it should be interpreted to relate the property instances, i.e. the fact that the phenomenal property is instantiated grounds the fact that the representational property is instantiated.
therefore always be a failure of implication from modal claims to grounding. To see this, consider this toy-analysis equating grounding with metaphysical necessitation:

**Modal analysis:** $A < B \text{ iff } \Box (A \rightarrow B)$.

As Fine points out (2012:38), a consequence of this analysis is that every necessary truth is the case in virtue of any other truth, (necessary or contingent), since necessitation will be in place in every such instance. Since $2+3=5$ is a necessary fact, we will have, $\Box (\text{snow is white } \rightarrow 2+3=5)$ and hence that $2+3=5$ *because* the fact that snow is white. This seems straightforwardly false. Hence, it seems like grounding implies necessitation, the converse implication does not hold.

Does the same asymmetry hold for supervenience? We have already, in chapter 2, seen that there is no implication from (asymmetric) supervenience to strict metaphysical priority. However, it is compatible with this that there is an implication relation going the other way: If property domain A is explanatory related to property domain B so that A in a sense has strict metaphysical priority over B, then it is plausible that this entails that B supervenes on A. If so, supervenience could have a limited application in the search for an answer to our question: We could not infer grounding from (asymmetric) supervenience, but we could perhaps infer failure of grounding from failure of supervenience. This is what Jonathan Schaffer has in mind when he says: "There is an interesting question about the modal consequences of grounding. This opens up the prospect of using supervenience for something – the right sort of supervenience failure can show grounding failure. Modal Correlation is at best a symptom." (Schaffer 2009:364).

I think this is right. If Entailment holds when singular grounding claims are concerned, it seems natural that supervenience should be implied by a “general” grounding claim. In many cases, as is the case with **Phenomenal Ground** and **Intentional Ground**, the claims are made generally, i.e. concerning sets of facts. Take Intentional Ground as an example: This thesis states that the fact that one instantiates a phenomenal property in a visual state is grounded in the fact that one instantiates a representational property when in that same state. This is a general claim regarding all phenomenal properties. Given Entailment, Representational Supervenience is a direct consequence of this position. To show this, assume Intentional Ground. It is now impossible to construct a counterexample to Representational Supervenience. This is because every instantiated phenomenal property is grounded in a representational property instantiation, the consequence is that the representational property necessitates the phenomenal property that it grounds (due to Entailment). We can therefore not have the same representational property accompanied by different phenomenal properties.

We can now see why Phenomenal Ground must be formulated slightly “weaker” than Intentional Ground, i.e. why we need to make the restriction to phenomenally manifest
properties. This is because representational properties can only plausibly supervene on phenomenal properties when restricting to the phenomenally manifest (cf. Modal Equivalence). Hence, if the visual content is singular for instance, then this aspect cannot be grounded by a phenomenal property due to failure of necessitation (there is the possibility that a phenomenal property can partly ground aspects that are not necessitated, I will return to this in section 3.4).

The take-home message from this section is that grounding implies necessitation (a general grounding claim implies supervenience), but there is no implication from a purely modal claim to a grounding claim. Hence, grounding resists analysis in modal terms. Still, it is possible to target grounding indirectly by scrutinizing modal connections: failure of necessitation shows failure of grounding. This builds on the acceptance of Entailment. This principle has been accepted by most philosophers working on the notion of ground. It has, however, also been challenged. I present some doubts concerning Entailment briefly in the next section.

3.1.1 Does Entailment fail?

Should we accept Entailment as a part of our logic of ground? Stephan Leuenberger thinks no. In this section I present and reject his reasons for doing so.

Leuenberger (2014) thinks Entailment fails. This is because he thinks a version of physicalism is consistent with physical facts failing to necessitate phenomenal facts. More precisely, he thinks it is consistent that physicalism actually is true, understood here in the specific sense that all phenomenal facts are grounded in physical facts, and that there is a possible world which is a physical duplicate of the actual world, but where the actual phenomenal facts fail to obtain (Leuenberger 2014:157). This would indeed be a counterexample to Entailment: If we assume that all actual phenomenal facts are grounded in physical facts, then, according to Entailment, the same physical facts should necessitate the same phenomenal facts. But Leuenberger thinks it is conceivable that in another non-physicalistic world there could be, in addition to the same

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59 Elaborated properly, the relation between “general grounding claims” and supervenience is this. Let us say that a set of atomic facts S is “exhaustively built from” a domain of properties A if and only if every property in A is a constituent of some fact in S, and every fact in S contains a property from A (by atomic fact, I mean simply a fact consisting of an object instantiating a property, i.e. of the form Fx). Correspondingly, we say that a set of atomic facts R is simply “built from” a domain of properties B if and only if every fact in R is constituted by a property in B (that a property is a constituent of a fact is understood in this way: the fact that this apple is red is constituted by an object: this apple, and a property: redness). The natural link between general grounding claims and corresponding property domains is then this: If the grounding relation relates every fact in a set S, containing only atomic facts, that is exhaustively built from a property domain A to a set of atomic facts R built from a property domain B, to the effect that every fact in S is grounded in some fact in R, then domain A supervenes on domain B. In our case, we can take a relationship between phenomenal properties and representational properties as a canonical example: If all facts of the form P(s), where s is a visual state and P is a phenomenal property, is grounded in facts of the form R(\(x\)), where R is a representational property, then phenomenal properties supervene on representational properties.

60 Phenomenal facts should here be understood as any fact that is constituted by at least one phenomenal property.
physical facts that obtain in our world, some non-physical “blockers” that prevent the phenomenal facts from obtaining (Leuenberger 2014:160-161).

Is this conceivable? Could, on the assumption that physicalism is true, physical facts fail to bring about phenomenal facts because of non-physical blockers? It is almost universally accepted that physicalism is incompatible with the case Leuenberger describes. He is therefore rejecting this consensus when he claims that physicalism (understood through grounding) is consistent with the possibility of a physical duplicate of our world which fails to bring about the same phenomenal properties.

If Leuenberger is right, then we should have to drop Entailment, proving both the directions of implication in Modal analysis wrong. Leuenberger’s point is, however, not widely accepted. The problem with Leuenberger’s scenario is that it is not clear what we are supposed to imagine when imagining that physicalism is true. The counter intuition I think one might have, going against his scenario, is that Leuenberger is not actually picking out the grounding relation when conceiving of this. That he is mistakenly taking some other “looser” connection for grounding. Could Leuenberger, for instance, mistakenly be characterizing a dualist position where the mental is causally connected or somehow otherwise “generated” by the physical by contingent laws? Rosen clearly thinks that we should distinguish the dualist holding any position where the physical does not necessitate the actually instantiated mental properties from a physicalist position understood in terms of grounding (Rosen 2010: fn.8).

Leuenberger is aware of the point Rosen makes, but still thinks his scenario is a case of grounding and not causation or the like. Still, I think we should accept Entailment (following Fine 2012, Rosen 2010, and others) and reject Leuenberger’s scenario. I must admit that I am not downright hostile to Leuenberger’s intuition about physical facts failing to necessitate phenomenal facts, but I think describing it as a possible case of grounding is a confused mistake due to the way in which we are used to think about the mind-body problem in terms of causal epiphenomenalism and the like. It is also strange that seemingly no other standard examples of grounding admit of the conceivability of “blockers” between the ground and the grounded. Take these examples as illustrations:

- The fact that {Obama} exists, is grounded in the fact that Obama exists.
- The fact that a table is located in front of me is grounded in the fact that there are fundamental particles arranged tablewise in front of me.

61 This should be seen as the cornerstone of the famous zombie-argument in philosophy of mind, most influentially formulated in Chalmers 1996.
• The fact that Sam was wrong in telling his big brother where his little brother Jim was hiding, is grounded in the fact that Sam promised Jim not to tell anyone.

It is not conceivable to me that any of these examples, on the assumption that they are true, might possibly be blocked (meaning that in a possible world, the ground obtains, but the grounded does not. Doesn’t this suggest that in Leuenberger’s scenario we are actually not picking out the same relation? I think so, and I think we therefore should accept Entailment.\footnote{Another principle one might naturally take to go together with Entailment is Internality. Internality says in effect that if some facts \( \Gamma \) ground a fact \( A \), then necessarily if both \( \Gamma \) and \( A \) obtains, then \( \Gamma \) grounds \( A \). In symbolism: \( \Gamma < A \rightarrow \Box (\Gamma A A \rightarrow \Gamma < A) \). The intuitive plausibility for this principle is, I think, quite strong: If some fact actually serves to explain that some other fact obtains, how could then in another possible world both these facts obtain, but the first not explain the latter? Jon Erling Litland has, however, argued strongly against this principle by providing a counterexample (Litland 2015). The counterexample turns on the availability of existential facts. If we do not think there are these kinds of facts, following Audi (2012), it is not clear that one can provide a counterexample to this principle. Litland further points out that Entailment is in principle independent of these counterexamples, but that also this principle will fail due to the counterexample in context of relevant iteration principles (see Litland 2015:487). However, these principles, though defended by Litland himself and a few others, are not integral to most understandings of ground. I think we should accept the existence of existential facts, hence Internality is not valid. Though I do think we can and should keep Entailment. Thanks to Litland for helpful correspondence in understanding his paper.}

### 3.2 Ground and other metaphysical concepts

We have seen above that strict metaphysical priority will not succumb to a purely modal analysis. Some take this perhaps as a reduction of the intelligibility of such talk. Others, in contrast, think this talk is meaningful and use it to invoke the notion of ground. Since modal notions are often subsumed under the name “intensional”, talk of grounding is often labelled “hyperintensional” due to the fact that it can draw distinctions that get ignored in the intensional framework.

Now, the section above is mainly negative in nature: we see where intensional tools fail us. However, this is not very much, some positive characterization of grounding is needed in addition to the claim that it is not necessitation or supervenience. We should not, however, hope for an analysis, as it is common to think that grounding does not admit of such, but has to be taken as a primitive notion if it is to be adopted in our vocabulary (Rosen 2010:113; Schaffer 2009:364; Fine 2001:1). Still, saying that something is primitive is not the same as saying that one can say nothing about it at all, far from it. Fine characterizes grounding as a determination relation, like supervenience, but one that has a characteristic “explanatory or determinative connection – a movement, so to speak, from antecedent to consequent” (Fine 2012:38).

\footnote{This name stems from the work done by Carnap on semantics and modal logic (1970). In semantical analysis, intensions are functions ranging over possible worlds. Different kinds of expressions can be considered functions outputting different kinds of values when evaluated at a particular world: the value of a property at a world is its extension (all things that have this property in this world), the value of a proposition is a truth-value. On this conception, everything that distinguishes propositions, say, are possible differences in truth-values.}
We can further understand primitive concepts by exploring their connections with other related concepts. Understanding grounding in relation to other metaphysical concepts is perhaps the best strategy for conveying the intended meaning of this notion. This is the theme of the following sections: First I explore the relation between ground and non-causal explanation. This is a relation of two-way entailment: every case of non-causal explanation is a case of grounding, and vice versa (section 3.2.1). Then, I treat the relation between ground, identity and reduction. I claim that grounding is incompatible with identity of facts, while reduction is only compatible with identity. This means that grounding is incompatible with reduction (section 3.2.2).

Those familiar with the work on grounding will perhaps expect a treatment of the relation between ground and anti-realism. However, I will not provide a characterization of that relationship in this thesis. It is true that some philosophers see the notion of ground as important because it is, according to them, able to recast the question of what is real in a new and more perspicuous manner, namely in terms of what is fundamental. The justification for laying this issue aside, however, is that I think it is fairly clear that it is the understanding of anti-realism that might be dependent on the understanding of ground and not the other way around. We can, or so I claim, understand “grounding” without understanding it in relation to anti-realism.

### 3.2.1 Ground and explanation

In chapter 2, I claimed that modal notions would not capture the strict priority views satisfactorily, but that the notion of ground would. This rests on the assumption that there is a

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64 Two adherents of this approach are Fine and Schaffer. Schaffer thinks that in a way one can trade away standard ontological questions of existence, conceived of in the Quinean way (are there any numbers?), for questions concerning what is fundamental. Schaffer says directly that most existence questions are trivial; numbers, properties, God, Sherlock Holmes, etc., they all exist, the question is only bow, and whether they are fundamental (Schaffer 2009:357). All these things might be challenged as being fundamental, they might be only derivative existents, and hence what Schaffer calls “an ontological free lunch” (2009:361). Fine has used the notion of ground extensively to present his preferred understanding of anti-realism (see both Fine 2001 and 2012). Audi differs clearly from Fine and Schaffer on this point, he does not take grounding to be connected to anti-realism (2012:101–102).

65 In one sense we should think of the grounding relation as picking out that which is metaphysically prior, but this seems to be orthogonal to the question of whether the grounded is **really real**. Take as an example the case with Obama and his singleton again. If we think matters of existence actually are facts (pace Audi 2012), then it would be natural, in the framework presented so far, to claim that the fact that {Obama} exists is grounded in the fact that Obama exists. And it also appears plausible that this should be so regardless of one’s realism or anti-realism stance towards abstract objects, at least when this distinction is understood in the sense that proponents of grounding wants it to be understood. It is instructive to look to Fine’s own view for this. When Fine links metaphysical grounding to non-causal explanation, he says also:

>`[T]hese phrases have to be properly understood. It is not implied that the explanandum just is the explanans (indeed, in the case that there are a number of explanantia, it is clear that this requirement cannot be met). Nor need it be implied that the explanandum is untrue and must somehow give way to the explanantia. In certain cases, one might wish to draw these further conclusions. But all that is properly implied by the statement of (metaphysical) ground itself is that there is no stricter or fuller account of that in virtue of which the explanandum holds. (Fine 2001:39)`

It is clear then that Fine defines anti-realist in terms of ground, but in order for A to be grounded in B it is not necessary that we take an anti-realist stance towards A.
very close connection between ground and metaphysical explanation. This idea seems to be prevailing in the literature as well, that there are true non-causal explanations is for instance seen as one of the primary reasons for believing that the grounding relation is real. One exemplary statement in this respect is Audi’s positive argument for the existence of grounding:

(1) If one fact explains another, then the one plays some role in determining the other.
(2) There are explanations in which the explaining fact plays no causal role with respect to the explained fact.
(3) Therefore, there is a non-causal relation of determination. (Audi 2012:105)

With this argument, Audi infers the existence of a non-causal determination relation from the existence of true non-causal explanations. This suggests that any non-causal explanation requires that the explanandum be grounded in the explanans. However, it leaves open the other direction of entailment; is every instance of ground also a possible instance of explanation? In other words, is it the case that if the fact that A grounds B, then A also serves to explain B? Jon Litland clearly thinks so: “For me, grounding is simply metaphysical explanation. The claim that \( \phi \) grounds \( \psi \) is the claim that \( \phi \) metaphysically explains \( \psi \).” (Litland 2015:483). Audi seems to endorse the same view when he further characterizes the link between grounding and explanation.  

Hence, the picture that both Litland and Audi draw is one where explanation is a generic term. And every true statement of the form that (the fact that) A explains (the fact that) B has an underlying tokening of a determination relation holding between A and B. In some cases, this relation is causal, in other cases of explanation it is non-causal and then it is a case of grounding (Audi 2012:119–120). I think Audis argument for the existence of ground and the need for conceptual machinery to pick it out is sound. We do make a lot of non-causal explanatory theorizing; in philosophy, but also in more everyday situations. To hold that they are all false would seem drastically revisionist and counterintuitive. I will therefore accept the strong link between metaphysical explanation and grounding that Audi and Litland makes.

This suggests a direct way of targeting the question of ground. Where modal notions might be used indirectly as a diagnostic tool, we can get to the grounding relation directly by giving a true explanation of a given phenomenon. If the explanation is sufficiently apt, the explanans is grounded in the explanandum. In chapter 4 I look closer at how such explanations might proceed with regard to phenomenal properties and representational properties. But first some remarks need to be made on the relation between ground, identity and reduction.

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66 See for instance this passage: "x (at least partly) *metaphysically explains* y just in case x grounds y." where Audi intends “just in case” to be read as a biconditional, not as definitional. (Audi 2012:119)
3.2.2 Ground, identity and reduction

The relationship between grounding and identity is a much simpler question than the relationship between grounding and anti-realism, or at least I think so. This is because grounding is almost unanimously assumed to imply distinctness, i.e. \( A < B \rightarrow A \neq B \) (Call this **Irreflexivity of Grounding**, following Audi 2012:110). The most straightforward reason for this is that grounding is thought to be asymmetric and irreflexive; identity is, as we know, both symmetric and reflexive.

Why think the grounding relation has this structure? This is mainly due to assumptions concerning the structure of explanation: if we follow Audi and Litland, and accept the idea that \( A \) serves to non-causally explain \( B \) whenever \( A \) grounds \( B \), and we also accept the fact that there is a case where \( A < B \) and \( A=B \), then we would have to accept an instance where something can explain itself. This seems intolerable. Explanatory claims are irreflexive. Further, if for some \( A \) and some \( B \), \( A < B \) and \( B < A \), we would have a case in which something could explain something else, which in turn explained the first thing. Again, this seems intolerable; explanation cannot be circular. Hence we should accept the **Asymmetry of Grounding**: \( \neg (A < B \land A > B) \).

This picture gets somewhat more complicated when we consider the relationship between grounding and reduction. On a first thought, one might think that reduction implies grounding since a reductive approach towards a given domain seems to involve making reference to something more fundamental: If the mental is reduced to the physical, then this surely means that the physical is in some sense more fundamental? But this is not straightforwardly so. One strong reason due to Audi for thinking that reduction never implies grounding is that one might think reduction implies identity (Audi 2012:110). This would then be incompatible with Irreflexivity of Grounding.

However, is Audi correct in holding that reduction implies identity? What does it take to reduce some phenomena (properties, objects or events) to other phenomena? This is a debate that has largely been dominated by the model proposed by Ernest Nagel in the 60’s (Nagel 1961: chapter 11). According to this model, which makes theories the relata of the relation, one theory \( A \) is reduced to another theory \( B \) iff \( B \) can be deduced from \( A \) in the context of relevant “bridging laws” (Kim 1998:25–26). Bridging laws answers to Nagel’s criterion of “connectability”, deducibility to the “condition of derivability” (Nagel 1961:354). A bridging law is a proposition relating the predicates of theory \( A \) to theory \( B \), in a way that allows for the formulation of theorems in theory \( B \) that are equivalent to theorems in theory \( A \). This means that both the predicates in the reduced theory and predicates of the base theory, as a matter of logical necessity, must figure in these bridging laws (Nagel 1961: 351–354). One does this (most
naturally) through bi-conditionals relating every predicate in the reduced theory either directly to co-extensive predicates in the reducing theory or to a complex predicate that is so co-extensive.67

Reduction, naturally understood, must involve some kind of simplification. Kim even calls this an analytic truth about reduction (Kim 1998:96). Is that captured in Nagel’s model? Yes, in a sense. If Nagel’s criterions are met, we are able to derive the theorems of the reduced theory from the base theory, and might then eliminate the relationship between predicates in the reduced theory as primitive; we get to them through the base theory (Kim 1998:97). However, in a sense, this is not simplified enough. What about the predicates of the reduced theory? They are still there. Bridge laws stating that every such predicate is co-extensive with a predicate in the base theory does not entail that this is property identification. I think there are good reasons for thinking that the right analysis of reduction includes a criterion to the effect that if one fact or a whole theory reduces to another, then this implies that the predicates in the reduced theory actually picks out properties already captured in the base theory, hence that we have property identification. The reason is formulated very clearly in Kim’s critique of the Nagelian model.

As Kim points out, reduction on the Nagelian model is not in any way explanatory. After having postulated a bridge law which says, for instance, that being in pain and having C-fibres firing in a certain pattern are co-extensive, we still wonder why this is so. The bridge law is itself in need of further explanation (Kim 1998:95–96). Identifying the two properties, on the other hand, does give us an explanation of the co-variation: being in pain just is having C-fibres firing in a certain pattern. Identification would also bring out ontological simplification, something the Nagelian model fails to yield, as Kim says: “If we want ontological simplification out of reductions we must somehow find a way of enhancing bridge laws, M ↔ P, into identities, M=P.” (Kim 1998:97; see also Sklar 1967 for similar ideas). This, I think, also coheres very well with our ordinary use of the word “reduction”: When saying that A reduces to B, it is usual to convey this by also saying either that “A is nothing over and above B” or “being A just is being B”.68

I think this gives us good reasons for thinking that when somebody says that being in pain reduces to undergoing certain C-fibre stimulation, then this implies that being in pain and

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67 It is often stated that these laws must take the form of biconditionals between co-extensive predicates in each theory, but even though this is the standard, it might strictly speaking not be necessary (Kim 1998:90–91).
68 Property identification has been with the reductive approaches all along. The classic example of a reductive theory of mind for instance, is the type-type identity theory of the 50’s and 60’s (see for instance Smart 1959). The functionalist heir to identity theories was seen largely as a way of avoiding reductionism about the mental, but it is not at all clear that this is the correct approach. Lewis, for instance, thought functional descriptions was the natural way of arriving at theoretical identifications (Lewis 1972). This is very similar to the way in which Kim understands the prime examples of scientific reduction. On his preferred model, reduction is only possible when we are able to function that a concept. We then proceed by identifying the referent of the concept with whatever fills the functional role in this world (Kim 1998: 98–99).
undergoing certain C-fibre stimulation is the very same property. Distinct, but co-extensive properties will not cut it. We should also be more permissive with respect to the relata of this relation: It should not only concern theories, but at least properties as well. Most naturally, it should also be expanded to allow for relating objects and facts also. Saying that the fact that you are in pain reduces to the fact that you are undergoing a specific C-fibre stimulation, implies that these two descriptions, or propositions, pick out the very same fact.

I mentioned earlier that things would get more complicated when considering reduction, the reason for this is the following puzzle: If we now think that reduction implies identity, how can we explain the fact that reduction is asymmetric? It is part of our ordinary use of this concept that reduction only “runs one way” (van Riel 2013:748), meaning that if \( A \) reduces to \( B \), it is not the case that \( B \) reduces to \( A \). But how can this be, given the fact that if \( A \) reduces to \( B \), \( A = B \)? How can substitution of co-referential terms alter the truth-value of reductive claims? For those acquainted with the philosophy of language, one might see the resemblances between this problem and what is often called “Frege’s puzzle”. The solution I want to present is similar to solutions of these puzzles in the philosophy of language: “__ reduces to ___” is a two-place predicate with intensional contexts (for more details on suggestions like this see for instance van Riel 2013). This means that the reduction predicate should be flanked by two terms with different meaning but the same referent or denotation.\(^{70}\)

\(^{69}\) If the co-extensiveness is taken to hold with metaphysical necessity, then one might think identification follows if one take necessary co-extensiveness as sufficient for identity (I return to this in chapter 4), but on Nagel’s view, according to Kim, this is not required for reduction, only nomological co-extensiveness is required. One should note that also on Kim’s functional-reduction model does the bridging laws \( M \leftrightarrow P \) not hold necessarily. How can this be, given that we also have \( M=P \) according to Kim’s model? The reason is that one of the predicates, \( M \), say, is nonrigid. This means that it doesn’t refer to the same property in every possible world. The reason is that this predicate refers in virtue of being a functionalized concept, picking out the property that fills a given causal role, e.g. “the property that is caused by tissue damage, and causes wincing”. In order for this concept to pick out, in a possible world \( w \), the property that actually realizes pain in humans, this property would need these causal connections also in \( w \). But this depends on the prevailing laws of nature in \( w \). Hence \( M \leftrightarrow P \) and \( M=P \) can be contingent, since \( M \) is a functionalized property-concept that only picks out \( P \) in nomologically similar worlds. For Kim’s discussion see especially 1998:chapter 4. These themes will not be important later when we consider the case for reduction of phenomenal to representational properties and reduction of representational to phenomenal properties.

\(^{70}\) The situation is quite similar to Frege’s initial puzzlement over cognitive value that made him postulate the existence of sense as a layer of meaning “above” reference in the first place. In “On sense and reference”, Frege sets up the following problem: How can (assuming \( a=b \) is true) \( a=a \) and \( a=b \) have different cognitive value, if the meaning of a sentence is a function of the reference of its constituents plus the structure of the sentence, and cognitive value supervenes on meaning (Frege 1892/1997)? Since \( a=b \) is true, \( a \) and \( b \) refer to the same thing. Hence, in one sense, \( a=a \) and \( a=b \) “says” the same thing: that a certain thing is self-identical. But, following Frege, they evidently do not have the same cognitive value since many important discoveries are made by way of identification, for instance that the morning star and the evening star actually is the same celestial body, Venus. In many cases when we learn that \( a=b \), we expand our knowledge of the world: it gives us what Frege calls “proper knowledge” (1892/1997:26). This is so even though we knew all along that \( a=a \). This is the main motivation behind Frege’s insistence on the layer of sense as a part of a terms meaning over and above the referent of the term. In this context it serves to say that the sense is (or contains) a mode of presentation of its referent, an aspect under which we think about the referent. Different senses may then give the same referent under different modes of presentation to
If we connect the points developed above with the initial characterization given of reduction, that reduction somehow concerns different levels of fundamentality, then we see that this is a difference that has to be located at the layer of meaning and not in reference: a reduction claim implies then both that A=B, but also that one conceptualisation of the referent is more basic or epistemologically prior to the other (van Riel 2013:757). I will discuss this further in the fourth and final chapter. What is more important at this point is that we do not confuse the epistemological conceptual priority that characterizes reduction with the explanatory metaphysical priority that characterizes grounding. Reduction implies identity, while the ground and the grounded are necessarily distinct.

3.3 Countering critique

This finishes my initial characterization of grounding and how it is related to other important metaphysical concepts. At the end of this chapter, I will use this to draw some crucial consequences for my project, but before going there I would like to present and defend against some criticisms of the grounding-framework. As the interest in the notion of ground has seen a big increase over the last twenty years, the sceptics have naturally followed. Some criticism targets the very intelligibility of the notion (this is the approach of Daly 2012 for instance). Naturally, I think this critique is misguided. I have spent many pages now trying to elaborate how I understand the notion of ground and exploring its connections with other metaphysical concepts. I think this talk is meaningful, but here I cannot go beyond this in proving it. Another type of criticism that is more pressing at the moment is the critique raised by Jessica Wilson.

In her article “No Work for a Theory of Grounding” (2014), Wilson argues against the need for invoking a general relation of grounding. This is not because she thinks hyperintensional notions are generally mysterious, or that many of the in virtue of-claims used as examples in this chapter are false. Neither does she claim that intensional resources get us around the problem. No, as she says:

Proponents of Grounding are correct that metaphysicians should be concerned with the question of what metaphysically depends on what; and they are correct that the idioms of metaphysical dependence are not properly interpreted in semantic, epistemic, causal or merely modal terms—necessitation and supervenience, in particular, are simply too coarse grained to characterize appropriately metaphysical dependence. (Wilson 2014:576)

The problem, according to Wilson, is that there is no general grounding relation able to do any metaphysical work or characterize any important metaphysical divide, there is just a set of

the subject in thought, explaining how one can come to learn something new when coming to know that a=b, namely that what is presented in this way according to one sense is also the way presented by another sense. Van Riel thinks we can explain the asymmetry of reduction in much the same way. I will return to this in chapter 4.
distinct more specific dependence relations (or small-g grounding relations, as she also calls it), that does all the work. These relations include, according to Wilson:

[...] type identity, token-but-not-type identity, functional realization, the classical mereological part–whole relation, the causal composition relation, the set membership relation, the proper subset relation, and the determinable–determinate relation, among others. (Wilson 2014:539)

According to Wilson, talk of grounding is not informative. We need to retract to talk of other, more specific dependence relations in order for a grounding claim to be illuminating and interesting. Once we have done this it seems like the grounding claim in itself loses some of its substance and becomes merely a retraction to the claim that one actually explanatory relation underlies the fact that one thing holds in virtue of another. On Wilson’s picture, we cannot even begin our investigation by targeting the question of grounding in general; we must always focus on these more specific notions (Wilson 2014:549).

The objection at hand is not that in virtue of-claims are not true or meaningful, but that there is nothing importantly shared between them. According to her, we do not need a general grounding relation, only the specific dependence relations given above. One immediate problem with Wilson’s approach, however, is that it seems like these specific dependence relations further depend on a general notion of ground to secure what is metaphysically prior, i.e. the direction of non-causal explanation. We need only to observe the live debate between monists and pluralists to see this: Monists and pluralists agrees on the facts that concern the mereological part-whole relation. They disagree, however, on what grounds what. The monist takes the whole to be explanatory prior (Schaffer 2010). The atomist takes proper parts to have priority (see Sider 2007 for arguments against monism). This is the reason why Fine says that the notion of ground is still needed, to supplement the mereological-part-whole relation, in order to pick out that which has metaphysical priority (in a pers. comm. referenced in Wilson 2014:558). Wilson’s own solution is to introduce the notion of fundamentality as a new and primitive concept. This view, Wilson states (2014:563), is not a grounding view in disguise.

There are two important points I want to make here. If they are sound, then I think they effectively disarm Wilsons critique of a general Grounding posit. The two points are: (1) there are no clear virtues to her alternative approach, (2) the set of small-g grounding relations that underlie big-G grounding is more restricted than Wilson presupposes, and the logic of ground is therefore much more informative than she thinks. I treat them in order.

First, it should be clear that Wilson is a friend of hyperintensional notions in general, her problem is with the general grounding posit specifically. In place of grounding Wilson adopts a framework consisting of the small-g grounding relations supplemented with a primitive notion of fundamentality. Now, we might accept that this is not a notational variant of the grounding
framework. Even so, it is not clear why this alternative is better. Both “grounding” and “fundamentality” are primitive notions doing much of the same work. How come the latter notion is acceptable and not the former? Perhaps the thought on Wilson’s part is that grounding is less informative than fundamentality. This seems plausible; one of Wilson’s biggest objections to the use of grounding is that it is not informative enough. She makes this clear through a comparison between the general grounding posit and the general causation posit. According to Wilson, causation tells us for instance that the cause and effect are distinct, something she thinks grounding fails to do. Further she takes causation to imply that the cause and effect both are real. This, she says (2014:553), is something that is unclear for the relata of a grounding claim.

I think, however, that this comparison is flawed. The reason why leads us to (2): There is more shared across grounding claims than Wilson presupposes, i.e. the logic of ground is much more informative than she assumes. This is because Wilson takes the set of small-g grounding relations to be too inclusive. She includes, for instance, type-identity and token-but-not-type identity within this group. On the characterization I have given, in contrast, grounding implies distinctness, which means that both these identity relations should not be considered specific instances of cases of ground. Wilson is not able to produce convincing arguments for the claim that such relations are cases of ground. One thing she brings forward is the claim that: “[...] cases of logical analysis [implying identity of facts, my remark] are paradigmatic cases of grounding or metaphysical dependence, and it is implausible to deny that they are such.” (Wilson 2014:574). However, to me this claim is far from clear.

There is, I think, no clear contrast in “informativeness” between grounding- and causation-claims: They both imply, for instance, distinctness. It is also a highly dubious claim that causation has implication for existence that grounding does not have. Some philosophers, e.g. Fine and Schaffer, thinks it is often the case that the grounded fact is not really real, but this is importantly not a relation of entailment. But when understanding the anti-realist position the way they do, it is not at all clear that the case with causation is any different. At least the way I understand their position, they would say it is an open question whether the cause and effect in a true causal statement is really real. A friend of a general causation posit should therefore be a friend of a general grounding posit.

71 To be more precise, Fine introduces an understanding of anti-realism that is not error-theoretic about everyday statements. On this picture, we can say that an act like killing people is wrong even though we do not think moral properties are really real. Here is Fine’s own words when contrasting this position with what he calls a sceptical form of anti-realism, what I have here called error theories: “Is there room for another form of antirealism—and another account of philosophy’s pretensions—that does not put them in conflict with received opinion? If there is, then it requires that we be able consistently to affirm that something is the case and yet deny that it is really the case.” (Fine 2001:3). I think it is clear from this that if mereological nihilism, understood as an anti-realist position in this specific
Bearing this in mind, Wilson’s own approach seems even closer to the grounding framework presented here. I do not want to consider in any detail whether “grounding” as used by me just means the same as her term “fundamentality”. What should be clear, however, is that the critique she mounts against the grounding notion is disarmed: Some of the relations Wilson invokes as small-g grounding relations falls out, and consequently the logic of ground is more unified than she argues for. This, I claim, makes the grounding notion an informative and useful one. What we should take home from Wilson’s discussion, however, is the point that it makes little sense to pursue grounding questions in isolation from more specific dependence relations. However, this is no surprise; we approach any grounding claim most directly, as already said, through the search for a metaphysical explanation of one through the other. This will often involve one of the “small-g grounding relations”.

### 3.4 Partial ground

Phenomenal Ground and Intentional Ground was defined accordingly at the end of chapter 2:

**Phenomenal Ground**: the fact that one instantiates a representational property representing phenomenally manifest properties when in a conscious visual state is grounded (at least in part) by the fact that one instantiates a phenomenal property when in that same state.

**Intentional Ground**: the fact that one instantiates a phenomenal property when in a conscious visual state is grounded (at least in part) by the fact that one instantiates a representational property when in that same state.

When considering the foregoing sections, we should at this point be much better equipped to understand what these claims really mean. However, one question remains: What does it mean to say that something is *partly grounded* in another fact? The idea of a partial ground is one that figures everywhere in the literature on ground. To see what a claim of partial ground amounts to, consider the case of a conjunctive fact: If A&B is true, and we think there are conjunctive facts, then it is natural to think that this fact is grounded in the set of \{A, B\}, that is, the set of its two conjuncts (Fine 2012:58). Note that it is grounded in the *set of these facts*, not in their conjunction, since that would imply that conjunctions ground themselves.

This leads us directly to the idea of a *partial ground*. In the case of A&B, we know that \{A, B\} grounds it, but what about the set containing just A? In one sense, it is natural to say that \{A\} is also a ground for A&B, it is just not “complete”, as it were. Hence, we would like to say

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72 If A < B, then: A ≠ B (distinctness), ¬ B < A (asymmetry), if B < C, then A < C (transitivity), □ (A → B) (Entailment) and A non-causally explains B (this often involves more specific dependence relations).
that the initial conception of ground is what we might call full ground. It guarantees that the grounded fact itself obtains (Entailment), though the related notion of being part of a full ground is called partial ground. A partial ground does not necessitate the grounded fact by itself.

Corresponding to the distinction here, it should be clear the Phenomenal Ground and Intentional Ground come in two versions: one formulated using full ground, another formulated using partial ground. Consider Intentional ground as an example:

**Full Intentional Ground:** the fact that one instantiates a phenomenal property when in a visual state is fully grounded by the fact that one instantiates a representational property when in that same state.

**Partial Intentional Ground:** the fact that one instantiates a phenomenal property when in a visual state is partially grounded by the fact that one instantiates a representational property when in that same state.

For instance, if representational facts only form a partial ground for phenomenal facts (or vice versa), this is because the phenomenal facts enter into the explanation of intentional facts, but they need to be supplemented by something else in order to form a full explanation. This means further that they might fail to necessitate the phenomenal property, but do so in conjunction with the relevant something else. Such a view will be discussed more closely in chapter 4.

### 3.5 The case for Independence

The Modal Correlation thesis makes for a very important crossroad when approaching the different answers one could take to our main research question. The full ground versions of Intentional Ground and Phenomenal Ground are both only compatible with Modal Equivalence. To illustrate this point, consider Full Phenomenal Ground: If the phenomenal property of a given visual perceptual state forms the full ground for a representational property, then it must necessitate that representational property (this is Entailment). If phenomenal and representational properties are modally independent, this is of course not the case, and hence Full Phenomenal ground fails. In short, full ground is incompatible with Modal Independence. Identity is also incompatible with this disjunct of the Modal Correlation thesis.

Now, is Independence compatible with Modal Equivalence? It is, but it is arguably a very implausible position to hold. Modal Equivalence implies such a strong modal correlation between the representational and phenomenal properties that we expect there to be an explanation for this. If Independence holds and we have this close modal correlation, then this means either that the correlation is unexplained or that a third domain of properties explains it, “screening off” any grounding relation between the two. However, both these possibilities are implausible. It seems utterly mysterious to hold that the modal correlation that Modal Equivalence implies should go unexplained. There is also no third domain of properties on the
scene that could take the role of explaining the correlation in phenomenal and representational properties. We should therefore take Modal Equivalence (ME, for short) to imply the negation of Independence (Ind.):

\[ \text{Non-Independence: } ME \rightarrow \neg \text{Ind.} \]

Since Independence, Identity (I), Phenomenal Ground (PG) and Intentional Ground (PG) is exhaustive of logical space (i.e. exactly one of them must be true), this formulation is equivalent:

\[ \text{Non-Independence: } ME \rightarrow PG \lor IG \lor I \]

Independence is in other words only an option once we have Modal Independence, but does it follow from this disjunct of the Modal Correlation thesis? This is not straightforward. We know already that Identity and the two full ground versions of Intentional Ground and Phenomenal Ground are incompatible with this disjunct of the Modal Correlation thesis. However, there are some partial ground views that actually are compatible with Modal Independence. There is therefore no direct entailment from Modal Independence to Independence, even if that seems to be the most plausible view to take in case of Modal Independence. For the time being it serves to say that establishing Modal Independence is necessary for proving Independence to be true; it is not sufficient, but clearly goes a long way in proving that it is plausible. Hence, the best case for Independence would be to approach it through Modal Independence. In the next chapter I approach the question of what we should think if Modal Equivalence is the case.

### 3.6 Chapter summary

In this chapter, I have provided an understanding of the notion of ground which captures the notion of strict metaphysical priority as this was introduced in chapter one. This means that Phenomenal Ground and Intentional Ground fully captures the pre-theoretical positions Phenomenology-first and Intentionality first.

How should we understand grounding? This notion is often introduced as a primitive. However, we can convey its meaning through its relations to other fundamental metaphysical concepts. Grounding cannot, as I have shown, be captured purely in terms of modal ideology. But there is an interesting implication the other way: If A grounds B, then A necessitates B (Entailment). This leads to the idea that “general grounding claims” implies supervenience.

What distinguishes grounding from its modal counterparts is that grounding is intimately connected to metaphysical explanation: \( A < B \) iff A metaphysically explains B. We can use this relationship to draw the further consequence that grounding is irreflexive and asymmetric; it is therefore incompatible with Identity. I believe that grounding is also transitive.
At the end of this chapter I introduced the notion of a partial ground, which will become important later. Together with Entailment, this makes up the relevant part of the logic of ground within this thesis.

I used this logic when objecting to Jessica Wilson’s critique of the grounding notion. Her critique targets not so much the intelligibility of ground as its usefulness. According to her, a grounding claim is always true in virtue of there being other dependence-, or “small-g” grounding relations in place. This makes, she thinks, a general grounding posit unnecessary and uninformative. I objected to this critique on two points: first of all, the logic of ground is more informative than what she presupposes. That is, much more is shared across cases of grounding. Secondly, the small-g grounding relations that she thinks can do the work of the grounding relation needs supplementation of a general and primitive notion of fundamentality in order to secure the direction of explanation. It is not at all clear that this framework is simpler or in other ways outperforms the grounding framework in terms of theoretical virtues. This justifies, I think, working with a general grounding posit.

In this chapter I also touched on the secondary theme of this thesis: reduction. Since grounding is often thought to relate facts at different levels of fundamentality, one might think that reduction and ground goes together. This, however, is not so. I argued above that we should understand reduction as property identification supplemented with conceptual priority. The latter is needed to secure the asymmetry of reduction statements. This gives us two new positions (subsumed under Identity) to consider in the fourth and final chapter:

- **Reduction to intentionality:** phenomenal properties of visual states reduce to representational properties.
- **Reduction to phenomenology:** representational properties of phenomenally conscious visual states reduce to phenomenal properties.

Assessing the plausibility of these positions requires a better grip on what kind of conceptual priority is relevant for reduction. I will say more about this in the next chapter.
4 Explanatory connections

The overall goal of this thesis is to answer whether there is any interesting explanatory relationship between phenomenal properties and representational properties in conscious visual states. A satisfactorily answer to this question would either support Independence, Identity, Phenomenal Ground or Intentional Ground.

We saw in the previous chapter that the only route to Independence (Ind., for short) goes through Modal Independence. There is no direct implication from this thesis to Independence, as there are some partial grounding views that are compatible with Modal Independence. Still, proving failure of modal correlation clearly goes a long way in showing that the two aspects are non-causally explanatory independent. On the other hand, if Modal Equivalence (ME) holds, we should accept that exactly one of these three is true: Identity (I), Phenomenal Ground (PG) or Intentional Ground (IG). I called this Non-Independence (NI).

In light of this, if Modal Equivalence holds, which of Identity, Phenomenal Ground or Intentional Ground is true? I will argue in this chapter that the answer to this depends on which of the following key theses one accepts (under the assumption that NI holds, of course):

**Unified Representation** (UR for short): The representational properties are unified across conscious and unconscious visual states. This means that both the following claims are true:

- **UR1**: The representational properties are the same in conscious and unconscious visual states.
- **UR2**: The representational properties have the same ground in conscious and unconscious visual states.

**Fregean Content** (FC): The content of conscious visual states consists in modes of presentation that presents the normal cause of the phenomenal property one is having.

**Establishing Appearance** (EA): Some sound arguments in favour of the view that visual experience is representational have premises about visual phenomenology and are establishing the direction of inference follows the direction of the grounding relation.

**Simplicity** (Simp.): the value of simplicity outweighs the reasons we have for accepting UR, FC and EA.

How do these carve theoretical space? Here is a short guide to the chapter and the way the key theses come into play throughout. The first part of this chapter presents the Identity position. This position requires not only Modal Equivalence; a stronger modal correlation needs to be in place between phenomenal and representational properties if they are to be identical. This is because Modal Equivalence is only concerned with *phenomenally conscious states*. A necessary requirement for Identity is that visual phenomenal properties are necessarily co-extensive with representational properties *unrestrictedly* (I call this ME”). But is it plausible to strengthen Modal Equivalence in this way? The threat is *unconscious perception*. It is near consensus both in philosophy and psychology that cases such as blindsight, hemineglect, visual masking and
binocular rivalry can produce visual states without phenomenal consciousness. This is where the first key consideration comes in: URI holds that unconscious visual states can have the same representational properties as conscious ones, but if so, then ME+ fails. Hence, we need to reject UR in order to have necessary co-extensiveness. Now, if we do this, then the so-called Intensional Criterion of property identity suggests that phenomenal and representational properties are identical. This is why I consider Identity as our starting point when UR is rejected.

The next section makes the case for Intentional Ground. I argue here that the best case for this position builds on accepting Unified Representation. This is because UR is incompatible with both Identity and Phenomenal Ground: URI rules out Identity and UR2 rules out Phenomenal Ground. In other words, UR enters into this conditional:

The UR conditional: UR → ¬PG ∧ ¬I

How does this support Intentional Ground? The point is that the UR conditional together with ME and NI will make UR entail IG (Independence is ruled out by the conjunction of ME and NI). Notably, it is only Partial Intentional Ground that will be supported by this argument.

The next section makes the case for Phenomenal Ground. Here I present two arguments. The first builds on accepting Fregean Content. FC is inconsistent with Identity, I claim, but further it supports Phenomenal Ground directly. Therefore we have this conditional:

The FC conditional: FC → PG

The third thesis, Establishing Appearance, is also tied up with the case for Phenomenal Ground and figures in the next argument for this position. The core of this argument is the idea that there are some sound arguments for the view that conscious visual experience is representational that have premises about phenomenology and that are establishing. Susanna Siegel’s Argument from Appearing is exemplary in this respect, as I will argue later. I will also later develop at greater lengths what it means to say that an argument is establishing; here it suffices to say that establishing arguments are arguments where the direction of inference follows the direction of the grounding relation. As such, an establishing argument will reveal the ground for its conclusion in its premises. This means that EA supports PG directly:

The EA conditional: EA → PG

After reviewing the case for IG and PG, I will return to the case for Identity. This position is our default position, but will arguably seem weak in light of the proceeding sections. This is where the last key thesis comes in. The most important reason for believing that phenomenal properties and representational properties are identical is due to the theoretical virtue simplicity.
It is quite clear that, if the choice is between Identity, Phenomenal Ground and Intentional Ground, then Identity offers the simplest account of the three. The key consideration at this point is what weight one attributes this theoretical virtue. Can it outweigh the reasons for believing the other positions? In this chapter, I claim not only that UR, FC and EA represent possible strategies in support of IG and PG respectively, but also that they are the best strategies. Hence, we only have to compare the value of simplicity with our confidence in these three theses: valuing simplicity over the confidence in all three means accepting Simplicity.

Simplicity alone does not support Identity, since this thesis only states that simplicity considerations trumps the best cases for IG and PG. Identity is the simplest, when compared to these two, but what about Independence? It is not clear that Identity is simpler than Independence, or that simplicity considerations outweighs the reasons we might have for believing in this position. Simplicity only excludes PG and IG. In other words, Simplicity enters into this conditional:

**The simplicity conditional:** Simp. \(\rightarrow\) \(\neg\)PG \(\land\) \(\neg\)IG

How does this support Identity? The point is analogous to the one made about the UR conditional, namely that together with ME and NI (ruling out Independence) will this conditional make Simplicity entail Identity.

At the very end of the chapter, I turn to a different theme, namely that of reduction. Reduction is only possible once we have Identity (cf. chapter 3). It is importantly not a strict priority view or connected to the framework of grounding: only conceptual priority characterizes reduction. But given Identity, do we have any reason for thinking that reduction to intentionality or reduction to phenomenology is true? I argue that the case for Reduction to intentionality (RI) is quite strong given an unrestricted Identity position, i.e. all phenomenal properties are identical with representational properties, not only visual ones (let us call this position I'). The last conditional I want to present is then this:

**The reduction conditional:** I' \(\rightarrow\) RI

This concludes my thesis. My findings are captured by the following six conditionals: \(^73\)

- **Non-Independence:** ME \(\rightarrow\) I \(\lor\) PG \(\lor\) IG
- **The UR conditional:** UR \(\rightarrow\) \(\neg\)PG \(\land\) \(\neg\)I
- **The FC conditional:** FC \(\rightarrow\) PG
- **The EA conditional:** EA \(\rightarrow\) PG

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\(^73\) I use the following abbreviations throughout the chapter: ME=Modal equivalence, MI=Modal independence, Ind.=Independence, I=Identity, PG=Phenomenal Ground, IG=Intentional Ground, UR=Unified representation, FC=Fregean content, EA=Establishing appearance, Simp.=Simplicity, RI=Reduction to intentionality.
The Simp. conditional: Simp. → ¬PG ∧ ¬IG
The Reduction conditional: I⁺ → RI

This gives a clear structure of theoretical space. We now know what the best reasons are for believing that each of Independence, Identity, Phenomenal Ground or Intentional Ground is true: If we accept Modal Independence then we most likely have Independence. Given Modal Equivalence, what should we then believe? If we accept Unified Representation, then we have (partial) Intentional Ground. If we accept either Fregean Content or Establishing Appearance, then we have Phenomenal Ground. If we accept Simplicity, then we have Identity. This concludes my search for an answer to our main research question.

4.1 The Identity position

Identity states that phenomenal properties of visual states are identical to representational properties of those states. What could make this plausible? Modal Equivalence implies that in conscious visual states, phenomenal properties are necessarily co-extensive with representational properties. One might take this to suggest that phenomenal properties in visual experience are necessarily co-extensive with representational properties simpliciter, i.e. without the restriction to phenomenally conscious states. If this is so, the question of identity naturally arises: if the two properties are necessarily co-extensive, why not think that they are one and the same? This is a good point, and some have taken necessary co-extensiveness to be not only necessary, but also sufficient for property identity. This line of thought is presented below.

4.1.1 The Intensional Criterion of property identity

The case for Identity builds on the assumption that the phenomenal properties of visual states are necessarily co-extensive with representational properties: If two properties are identical, then they must be necessarily co-extensive (this is a relation of direct entailment). Nothing can have F and fail to have G if F and G really are the same property. The Modal Equivalence thesis gives us co-extensiveness in the case of conscious visual states, but does it hold without this restriction? The threat at this point is the idea that there exists unconscious perception. Why is that? This is where Unified Representation comes in. If URI is true, then the representational properties of conscious visual states can also be had unconsciously. If this is the case, then it is obvious that these representational properties cannot be identical with phenomenal properties. If they do not always come together, then they cannot be identical, i.e. one and the same. Hence, the fate of Identity is partly decided by URI.

How could the Identity theorist make the rejection of URI plausible? The first route would be to deny the very existence of unconscious visual states, but that is not a strong
response. It is nearly consensus in both philosophy and psychology that there exists a range of unconscious visual states. Examples include what is called blindsight, a condition that is due to lesions in the primary visual cortex that results in what subjects report as “blind spots”. Even without any visual phenomenology, blindsight patients can perform much better than chance on guessing shapes and movement of stimuli presented in blind spot areas (some patients with complete blindsight, i.e. a totally “blind” visual field, can even navigate a room, avoiding obstacles; de Gelder et al. 2008). Clearly this subject is behaving in a way that requires what we would normally call “seeing”. A related phenomenon is the case of hemineglect, the result of damage to one side of the brain (typically the right) that results in failure to be aware of objects on the opposite side of the subject’s egocentric space (Husain 2008).

There is also a range of cases in which normal subjects can undergo what appears to constitute unconscious perception: for instance, visual masking and binocular rivalry. In the first case a subject is presented with a brief stimulus before being presented with a masking stimulus. When the first stimulus is presented for a sufficiently short period of time, the subject fails to consciously see it. Nevertheless, the masked stimulus affects behaviour in relevant ways that makes it natural to say that it is perceived (see for instance Naccache & Dehaene 2001). In binocular rivalry cases, subjects are presented with one bright stimulus and one dim stimulus; one to each eye. The effect is that subjects will only report seeing one. Just as with the masking effect, however, the stimuli that is not reported will affect performances in various tasks afterwards that suggests it is perceived (see for instance Jiang et al. 2006). See Prinz 2015 for a review of recent empirical studies on unconscious perception.

In short, the view that there is unconscious perception is almost the consensus view within both philosophy and psychology. Block endorses the view that there is unconscious seeing (2011, 2012 and 2016), as does Burge (2010:374–376). Ian Phillips is a notable exception (2016). He raises doubts concerning especially neglect- and blindsight studies. A full review of the discussion that Phillips raises and the studies he leans on go outside the limits of this thesis. I will here put further discussion aside on the assumption that there is phenomenally unconscious vision, or episodes of seeing, and further that they have representational properties. This does not mean that I think this assumption is obvious.

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74 Phillips notes that changing the question posed to blindsight patients, for instance, makes it less clear that they have truly blind spots (i.e. phenomenally unconscious). Changing from a simple “did you see anything?”, to either “were you aware of anything?” or a more fine-grained four point scale going from “did you see a clear image?”, through “did you see a weak glimpse?” to “did you see nothing at all?” makes it less clear that blindsight patients are not undergoing phenomenally conscious degraded vision (Phillips 2016:436–437; the relevant studies are Stoerig and Barth 2001 and Overgaard et al. 2008; see also Brogaard 2011 for a critical discussion concluding that blindsight is a genuine case of unconscious perception).
Now, if we first indulge in this assumption, then here are two routes the Identity theorist can take in denying UR1: (1) there is necessarily a difference in content between conscious or unconscious visual states; (2) there is a difference in manner. Now, it might seem obvious that contents differ between unconscious and conscious perceptual states, as the information subjects get from unconscious perception seems to be thoroughly degraded in some sense. But this would be too hasty a conclusion. Some take it that content could be the same across conscious and unconscious states, arguing that the same kind of information can be present in both cases (Prinz 2015:383). Chalmers appears to endorse the same idea (2010a:344). For the time being I assume that this reasoning is correct, meaning that the route to Identity goes through (2): there is a necessary difference in representational manner between conscious and unconscious perception.

Chalmers and Pautz endorse this route (perhaps also Tye, but see fn. 84). Chalmers holds that a “phenomenal manner” characterizes conscious states (2010b:346-349), Pautz calls the relevant manner “sensorily entertaining” (Pautz 2009:494). I discuss UR1 further in the next section, but for the sake of argument I assume here a view similar to that of Chalmers and Pautz.

The rejection of Unified Representation paired with Modal Equivalence gives us necessarily co-extensiveness between phenomenal properties and representational properties (ME"). But how can we move beyond this and make identification plausible? How do we find out whether two properties are actually not two, but one and the same? This is a metaphysical question that has been important throughout the 20th century, which concerns the criterion of property identity. One influential answer to this question holds that necessarily co-extensiveness is not only necessary for property identity, but that it is also sufficient. This is what is called the Intensional Criterion: F and G are the same property if and only if necessarily everything that has F has G, and necessarily everything that has G has F. This view is perhaps most famously endorsed by David Lewis (1983, 1986) and is quite influential. Lewis’ own version is of course entangled with his Modal realism, which most philosophers reject. However, it is arguably possible to endorse the Intensional Criterion without accepting Modal realism.

Some philosophers engaged with the themes of this master thesis do hold the Intensional Criterion. One example is David Chalmers. He is, however, open to the idea that the criterion of identity could be understood differently:

75 In symbolism: $F=G \iff \Box \forall x (Fx \iff Gx)$

76 According to Modal realism, reality consists of an endless range of concrete universes, one for each metaphysical possibility. On this view, every possible world exists in just the same way as our actual world. Which is to say that they have their own individuals and properties instantiated (Lewis 1986 is the canonical statement of Modal realism). This grandiose ontology allowed Lewis to identify properties with sets of possibilia, i.e. objects in different worlds.
I take it in what follows that the [necessary co-extensiveness] of two properties suffices for them to be identical. Not much rests on this: if one thinks properties are finer grained than this, one can simply replace talk of identity throughout this chapter with talk of equivalence. (Chalmers 2010a:343).

It should be clear now that one can argue for Identity by referencing this substantial metaphysical view (I use IC as short for the Intensional Criterion):

1. \(\neg UR1 \land ME \land IC\)  
   (one rejects UR1 and holds both ME and the Intensional Criterion)
2. \(\neg UR1 \land ME \rightarrow ME^+\)  
   (rejecting UR1 while holding ME leads to ME+)
3. \(ME^+ \land IC \rightarrow I\)  
   (ME+ in conjunction with the Intensional Criterion leads to Identity)
4. Hence: I  
   (one concludes with Identity)

The Intensional Criterion is, however, not alone in the discussion of what is required for identity between properties. There is a range of different views out there and – if you exclude the extensional criterion,\(^77\) which is not plausible (see e.g. Orilia & Swoyer 2016) – they all contrast with the Intensional Criterion in that they are more finely grained. This means that they are able to distinguish properties that are necessarily co-extensive. The difference is perfectly analogous to the distinction between modal notions and the grounding framework established in chapter 3. Let us therefore also call fine-grained property identity criterions for hyperintensional.

Some hyperintensional property notions have it that properties should be distinguished by causal powers, while others have it that co-extensive properties can differ with respect to which facts they can ground (see Audi 2016 for an overview). This last suggestion is of particular interest to us, since this is exactly what is at stake: Do phenomenal and representational properties differ with respect to what they ground? If Phenomenal Ground is true, then yes: phenomenal facts ground something that representational facts do not ground, namely representational facts; vice versa for Intentional Ground.

Lacking decisive arguments in favour of the Intensional Criterion, we should not take necessary co-extensiveness as decisive evidence in favour of Identity; both grounding positions are compatible with it. Nevertheless, I do think that it provides a natural starting point: If there is unrestricted co-extensiveness, then we should take Identity as a default position. However, if we have good reasons for thinking that the two properties can differ with respect to what they ground, then we could reject Identity even if they are necessarily co-extensive. This will be the background for the rest of this chapter. I will now turn to the discussion of Intentional Ground

\(^77\) According to this notion, properties are only distinguished in terms of their extension, that is, by which actual individuals they apply to (i.e. \(F \equiv G \equiv \forall x(Fx \leftrightarrow Gx)\)). According to this conception being a creature with a kidney is the same property as being a creature with a heart, since all creatures with kidneys reportedly are creatures with hearts. The Intensional Criterion has the resources to distinguish these two properties, since it is certainly possible that a creature with a heart could fail to be a creature with a kidney.
and Phenomenal Ground and their strongest supporting arguments. After which I will return to Identity and consider this position again. What is important at this point is the link between UR and Identity: we have to reject UR, and more specifically UR1, in order to have Identity.

4.2 The case for Intentional Ground

Intentional Ground states that the fact that you instantiate a given phenomenal property when you are in a visual state, is grounded in the fact that you instantiate a certain representational property when in that same state. What could make this plausible? To the extent of my knowledge, there is no one in the existing literature that holds a full ground version of Intentional Ground. And I cannot think of any considerations that make the view plausible. The reason is this: In order to have a full ground view, the relevant representational properties should necessitate phenomenal properties (cf. the discussion of Entailment, section 3.1.1). Hence, we would have to reject UR1. Together with ME, this gives us ME+, as we saw above. This mirrors the necessary requirement for Identity, and hence the Intensional Criterion would suggest that Identity holds.

This does not rule out the possibility of a full ground version of Intentional Ground. After all, I do think that the arguments to be developed later for full versions of Phenomenal Ground are compatible with ME+. In other words, it is not taken for granted here that the Intensional Criterion of property identity is true. The problem is rather that in order to support a full ground version of Intentional Ground, one needs to have strong reasons to think that the two properties are distinct and that the representational properties alone grounds the phenomenal properties. And this is where I come up short. There is surely room in logical space for a full version of Intentional Ground, but I think that it is a small niche. I will therefore suspend any further discussion of a full ground version of Intentional Ground for the remainder of this thesis. This does not mean, however, that I will leave Intentional Ground, far from it. There are quite strong reasons for believing in a partial version of Intentional Ground:

Partial Intentional Ground: the fact that one instantiates a phenomenal property when in a visual state is partially grounded by the fact that one instantiates a representational property when in that same state.

The best supporting argument for this version of Intentional Ground goes, I think, through Unified Representation. I develop this in more detail now.

4.2.1 The argument from Unified Representation

The line of thought to be developed here builds on the assumption that there can be unconscious perception, and in particular unconscious visual states, as presented above. We saw there that the existence of unconscious perception is compatible with Identity, hence it cannot in
itself support Intentional Ground. What does support Intentional Ground, however, is **Unified Representation**. UR consists of two theses: UR1 states that representational properties are the same in conscious and unconscious visual states, while UR2 states that representational properties have the same ground in conscious and unconscious visual states. The former is inconsistent with Identity, as we saw in the section above. The latter is inconsistent with Phenomenal Ground. If we also assume Modal Equivalence and Non-Independence, then this leaves no other option than Intentional Ground. I think this is the best argument in favour of a partial version of Intentional Ground. In the following, I will elaborate on this argument in three stages: (1) I explain why UR2 is inconsistent with Phenomenal Ground. (2) I present the reasons for thinking that UR is true. (3) Since we motivate Partial Intentional Ground by ruling out all other options, it can be difficult to see what the view itself actually consists in. The last stage of this section is therefore a positive account of the view.

(1) Why is UR2 inconsistent with Phenomenal Ground? UR1 rules out Identity, but not Phenomenal Ground. The reason is that even if the same representational properties exist in unconscious visual states as well as in conscious ones, they might be explained differently in the two cases, which means that they might have different grounds. Perhaps phenomenology grounds the presence of representational properties in conscious states even if it does not do so in unconscious visual states. If UR2 is true, however, we see that this is not the case. This thesis states that the representational properties have the same ground in unconscious as well as conscious visual states. It is quite clear that having a representational property in an unconscious visual state cannot be grounded by the fact that one has a given phenomenal property when in that same state as there is no phenomenal property present. That is simply what it means (in this setting) to say that the state is unconscious. With this in place, UR2 implies that PG is false.

(2) Why believe that UR is true? This splits into two related questions: why is UR1 true, and why is UR2 true? UR1 requires that both content and manner can be shared across conscious and unconscious perceptual states. Some, however, fail to take both these into account. Jesse Prinz, for instance, dismisses Identity because of UR1: “I have argued that conscious and unconscious perception carry the same information, which means that qualitative character cannot be a simple representational property, as some representationalists have argued (Dretske, 1995; Tye, 1995)” (Prinz 2015:383). However, his dismissal builds on the idea that

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Still, it is possible to hold UR2 while also holding that the ground of unconscious visual representational properties includes facts partly constituted by phenomenal properties: One could for instance hold that the fact that an unconscious visual state has a given content is grounded by fact that another visual state (a phenomenally conscious one, of course) has a phenomenal property. However this view is not very plausible and is not the view that Phenomenal Ground captures.
content is shared across unconscious and conscious states. He does not take into account the 
manner in which one represents the given content.

But, this is not so strange, as working under the assumption that there can be 
unconscious perception is closely connected with the idea that perceptual states form some kind 
of unity, perhaps a natural (psychological) kind. Therefore, it is also natural to take the 
representational manner to be shared for all states of this kind. I think this idea is implicit in 
Prinz’ writing, and also in the way Block and Burge think of unconscious perception. According 
to Burge, the very nature of the kind perceptual states is definable in terms of their representational 
properties: “Perception is a type of objective sensory representation by the individual. […] I regard this 
characterization as constitutive. It speaks to the nature of perception, what it fundamentally is” 
(Burge 2010:368; see also Block 2012:12). Unifying perceptual states by representation coheres 
well with the idea that both conscious and unconscious perception shares a representational 
manner. This is not stated explicitly in either Burge or Block’s work, but I think it is plausible 
that they would endorse it. This, as I see it, is the most straightforward motivation of UR1.

Why believe that UR2 is true? It is perhaps natural to think that this follows from UR1: 
the idea being that two instances of the same property must have the same ground in each case. 
However, I believe this is wrong. It is not a direct consequence of UR1 that the representational 
properties always have the same ground. Sometimes different instances of the same property are 
grounded by different facts, e.g. the fact that something is red is sometimes grounded by the fact 
that a given thing is crimson, in other instances it is grounded by the fact that a given object is 
scarlet. Since there is clearly a huge difference between states that are conscious and those that are 
not, we cannot take for granted that representational properties have the same ground across 
states differing with respect to phenomenal consciousness. I believe this is an important point; 
conscious states are probably a lot more complicated than unconscious ones. UR2 faces 
therefore the challenge stemming form this suspicion: That the difference between 
phenomenally conscious and unconscious states is relevant for the grounds of the shared 
representational properties. What is needed to attenuate this challenge is a theory of 
tentionality that is independent of phenomenology, also in the case of phenomenally conscious 
vision. This is a clear contact point between this thesis and empirical psychology. If it were 
possible to develop a theory that explains representational properties of perceptual systems 
independently of phenomenal properties, then this would be a strong sign of the truth of UR2. For this 
reason, I take Tyler Burge to endorse UR2, even though he does not explicitly relate to it. When 
he argues for the existence of unconscious vision, he makes the following statement:
Bees and certain spiders visually perceive color, shape, motion, spatial location, and so on. They exhibit associated perceptual constancies. Whether bees and spiders are phenomenally conscious is unknown. These cases are not known to illustrate individual perception without consciousness. But the epistemic situation supports not taking consciousness to be constitutive of individual perception, or of the individual/subsystem distinction. Since perception can be confidently and firmly attributed to bees and spiders without knowing whether they are conscious, it is at best questionable that their perception or (more generally) individual-level psychological states constitutively require consciousness. The dissociation cases make the point more directly. (Burge 2010:375)

In this passage, Burge states that we can attribute perceptual states and perceptual constancies to bees and certain spider families independently of phenomenal properties. This means that we do not need to know whether the perceptual states of bees are conscious or not in order to attribute this. Since Burge holds that visual states have content (2010:34–42), this passage implies that we can attribute representational properties independently of phenomenal properties. It is natural to think that if we can attribute representational properties independently of phenomenal properties, then we can explain the representational properties without referring to phenomenal properties. Note, however, that this does not follow directly. However, given an explanation of the representational properties that does not make explicit or implicit reference to phenomenal properties, this would mean that the ground of the representational property does not include facts about phenomenal properties. All in all, the confidence in UR2 should be proportional with the confidence we have in the best theories that explain visual representational properties independently of phenomenal properties.

Adopting UR gives us the following argument for Intentional Ground:

1. ME ∧ UR1 ∧ UR2 (Modal Equivalence and Unified Representation)
2. ME → I V PG V IG (Non-Independence)
3. UR1 → ¬I (The UR conditional broken down)
4. UR2 → ¬PG (The UR conditional broken down)  
5. IG (Intentional Ground)

Now, this argument is indirect in nature. We end up with IG by ruling out all the other positions. This makes it difficult to see what the resulting view consists in. I will therefore end this section with a positive characterization of the view, and a more direct way of motivating it. First off, since we are building on UR1, the argument given above does not support a full ground version of

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79 This is so because attribution of representational properties could be based on phenomena that in turn are related to phenomenal consciousness, without us knowing it. For instance, if we attribute intentionality to animals and systems based on behaviour, this might give the appearance of the possibility to explain intentionality based on behaviour, excluding phenomenal properties. But the relevant behaviour might be the effect of phenomenal properties, hence there could be implicit reference to phenomenal properties, even though the explicit reference is only to behaviour. Attribution would still be independent of this, while explanation is not, since explanation is transitive.

80 In the introduction, I presented the following conditional as the UR conditional: UR → I ∧ ¬PG. This conditional is here unpacked in premise 4 and 5, corresponding to the account given above.
Intentional Ground, only a partial one. This is because a full ground necessitates the grounded fact (cf. Entailment). If we have URI, then the representational properties do not necessitate phenomenal properties, since they sometimes come without them: i.e. unconscious visual states. Since we have Modal Equivalence, however, we have necessitation in the case of conscious perception. This is what makes room for a grounding view: since representational properties necessitate phenomenal properties in the case of conscious perception it could perhaps form a full ground together with some other feature.

This other feature would firstly have to be suitably modally correlated with conscious visual states; that is, it needs to be in place every time there is conscious experience if it is to cohere with Entailment. And secondly, it needs to be able to fill the role of a grounding fact, meaning that it needs be explanatory of the presence of the phenomenal properties. Let us call this other feature just X for now. And let us for the sake of argument assume that this can be given. Then the partial grounding view is one where representational properties together with X fully ground the presence of phenomenal properties. This is compatible with what I will call the identification strategy: simply identifying phenomenal properties with the relevant complex properties consisting of the relevant representational properties and X.

It is important now to keep the contrast between Identity and the identification strategy of Intentional Ground clear: According to Identity, the phenomenal properties of visual experiences are identical to representational properties simpliciter. To the Identity theorist, the distinction between conscious and unconscious perception is a difference in representational manner (as discussed above). In contrast, Intentional Ground theorists taking the identification strategy hold that the correct analysis of a phenomenal property includes a representational property, but they will also have to require something more: perhaps a functionally specified property. The representational property partly grounds the phenomenal property, since it partly constitutes this complex property. In light of this, it is important to note that if the complex property,

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81 One needs to be able to state the relevant X in purely non-phenomenal terms (for instance as a specific functional role). If not, if X was a phenomenal feature, then it seems like X alone accounts for the fact that the complex property is phenomenal. One might still think that the content of the representational property partly explains the character of the phenomenal property. But if the X-feature is a condition to the effect that the state is phenomenal or something close to this, then the perceptual representational property seems to be idle in the explanation of the phenomenal property being phenomenal. Therefore, if having a phenomenal property is analysed as having a representational property plus some other condition involving the notion of phenomenology itself, then we should not characterize this as an Intentional Ground position.

82 Having the complex property <representational property P ∧ X-feature> is not then the full ground of having the phenomenal property. This would violate Irreflexivity of Grounding since we are assuming that the phenomenal property and this complex property are identical. Rather the set of facts containing the fact that one has representational property P and the fact that one has the X-feature fully grounds the fact that one has the complex property that is the phenomenal property.

83 The difference, the, is this:
when formed out of a representational property and the X-feature, were to constitute just a new representational property, then we would have Identity again. Therefore, in order to be an Intentional Ground position, it is crucial that the representational property stays the same when the X-feature is “added on” in the case of conscious perception.84

It is hard to imagine what the relevant X that together with a representational property could be. The reason why this is difficult is that whatever one suggests, one would apparently be able to imagine the relevant condition without phenomenal consciousness. This is the intuition that is named “the explanatory gap” (Levine 1983) and is what drives the famous zombie argument (Chalmers 1996). Does this count against a partial version of Intentional Ground? Not very strongly, as the view is a direct result of the argument provided earlier. It is quite clear that both Identity and Phenomenal Ground is incompatible with UR. Given this, the only position competing with Intentional Ground would be Independence. But we have already assumed that Independence is false if we have Modal Equivalence. Hence, a partial Intentional Ground view is the result when combining UR and ME. One might of course take this as evidence that Non-Independence is false. Perhaps Independence, after all, is plausible in combination with Modal Equivalence? I think not. I think it is more plausible that Partial Intentional Ground is true, than Independence and ME being true together. For this reason, supporting UR, is the best way of supporting Intentional Ground.

4.3 The case for Phenomenal Ground

Phenomenal Ground states that the fact that one instantiates a representational property representing phenomenally manifest features when in a conscious visual state is grounded (at least in part) by the fact that one instantiates a phenomenal property when in that same state. If this claim takes the form of a full ground claim, it has the by now familiar implication that the relevant representational properties should be necessitated by the relevant phenomenal

84 The way I see it, the contrast between Identity and the identification strategy of Intentional Ground is something that is not always clear. Some philosophers take phenomenal properties to be identical to complex properties involving representation of content together with functionally specified conditions that distinguishes conscious from unconscious perception. It is, however, not perfectly clear whether they think these functionally specified conditions alter the manner of representation or whether the manner can be the same with and without it. Tye’s position is a good example here: He holds that phenomenal properties are identical with representational states that are relevantly “poised”. Poised is a functional condition characterizing states that “[…] arise at the interface of the nonconceptual and conceptual domains, and they stand ready and available to make a direct impact on beliefs and/or desires” (Tye 2000:61). It is not clear, I think, whether this means that the state being poised is part of the representational manner of the state, or whether it plays the role of our X-feature as to make room for an Intentional Grounding view. Perhaps this shows that the difference between Identity and the identification route of Intentional Ground is not that different? Nonetheless, deciding between them turns on whether or not one accepts Unified Representation.
properties. This implication is fulfilled if we take the phenomenal duplicate and Transparency Intuition seriously and opts for Modal Equivalence.

We saw above that Phenomenal Ground is inconsistent with UR2. Strictly speaking, it is independent of UR1: Even if representational properties are the same in conscious and unconscious visual states, the ground can be different in each case. Still, I think Phenomenal Ground is most naturally pursued when rejecting UR in its entirety, though this is not obligatory.

In this section I present what I think are the best two arguments for the Phenomenal Ground view: the first builds on Fregean Content, the second on Establishing Appearance.

### 4.3.1 The argument from Fregean Content

The first argument that I will develop here takes the key thesis Fregean Content as a point of departure. Accepting FC means that visual content is Fregean in the specific sense introduced in chapter 2. We have already seen that this has some plausibility when assuming Modal Equivalence. Referential content struggles in face of Pautz’ argument against Phenomenal Externalism, while the Primitivist view implied that every colour experience was illusory. Adopting FC is inconsistent with Identity, as I will show, and furthermore it leads directly to Phenomenal Ground.

Let us first recall Chalmers’ suggestion to what kind of mode of presentations would be involved in the Fregean content of an experience of colour:

> What are the modes of presentation associated with a given perceptual experience? To determine these, one considers scenarios involving different ways the world might turn out and considers what the objects and properties represented by the experience will then be. Take a visual experience as of a green sphere. [...] Overall (if we abstract from all other features of the experience, such as its spatial features), the experience will be associated with a Fregean content such as the object causing this experience has the property that usually causes experiences of phenomenal greenness. (Chalmers 2010a:363)

On this proposal, when I see something and have the phenomenal property *phenomenal greenness* (*P*-green, for short), my perceptual state attribute to the object seen that it has the property that usually causes *P*-green (I will use “normally” rather than “usually” in the following. This term should further be understood so that it is evaluated only with respect to the subject that has the experience). Accepting that this is the form of perceptual content means accepting FC:

**Fregean Content**: The content of conscious visual states consists in modes of presentation that presents the normal cause of the phenomenal property one is having.

Combining this view with Identity is inconsistent, I will argue. This is because of the following reasoning. When assuming FC, the only thing that differentiates the representational property of an experience with phenomenal property *P*-green and an experience with *P*-red is the difference in phenomenal properties, since these are used to construct the modes of presentation presenting
the normal cause of the experience one is having. If one were to identify the phenomenal properties with the representational properties of visual experiences (i.e. adopt Identity), then the consequence is that there is no difference between representational properties, and therefore no difference in phenomenal properties. Clearly this consequence is absurd; we are able to have a range of different phenomenal properties. This constitutes a reductio ad absurdum of the combination of FC and Identity.

In order to illustrate the point previewed above, consider this analysis of $P_{green}$:

1. $P_{green} =$ representing visually that *something has the property that normally causes experiences of $P_{green}$.*

We see already here that there is something strange about this analysis, as $P_{green}$ figures on both sides of the equality sign. Further, consider the corresponding analysis of the property $P_{red}$. $P_{red}$ is the phenomenal property that I undergo when seeing ripe tomatoes, and this is a different property than $P_{green}$, which is the property that accompanies my experiences of cucumbers:

2. $P_{red} =$ representing visually that *something has the property that normally causes experiences of $P_{red}$.*

If Identity is combined with FC, then the analysis of both $P_{green}$ and $P_{red}$ given above is the result. This is, however, inconsistent with the assumption that the two properties $P_{green}$ and $P_{red}$ are distinct. This claim might seem puzzling, since there appears to be a difference in content between the two representational properties: 1. involves $P_{green}$, while 2. involves $P_{red}$.

However, this is merely a surface difference. There is no difference in what these two contribute to the mode of presentation (I assume here that $P_{green}$ and $P_{red}$ can only contribute differently if they refer differently). Now, $P_{green}$ and $P_{red}$ both refer to the very properties that we are analysing, i.e. they are cases of self-reference. So, in order for them to contribute differently to the content of the representational properties, the representational properties have to be distinct without taking different self-representation into account. This is simply because two representations involving self-reference cannot differ solely in terms of the self-referring term.

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85 We should not think of this mode of presentation as *conceptual* in any way. We do not want to say that someone needs to have the concept of “normal cause” for instance, in order to have a colour experience. This would probably make perceptual capacities way more complicated than they actually are. Someone like Tyler Burge has made this point very clear: If one requires sophisticated conceptual capacities in order to have perceptual states, then this would rule out animals and infants as perceiving creatures. I think Burge is right when rejecting this view, we should theorize about perception in a way that makes the capacity fairly basic. We should not “hyper-intellectualize” it, as Burge would say (2010:13). Hence, I do not think of the modes of presentations of perception as something with a conceptual structure. When I use a sentence to capture the mode of presentation, as in Chalmers suggestion, I think of this merely as expressing the condition of satisfaction that the mode of presentation is. The conceptual structure does not correspond to the structure of the mode of presentation; it is just a way of expressing the condition of satisfaction linguistically. Hence, there is no concept of phenomenal property that enters into the content. Still, the phenomenal property is a part of the condition of satisfaction. This is how I take phenomenal properties to be “constituents of content”, on the view discussed here.
However, there is no difference other than the surface difference between $P_{\text{red}}$ and $P_{\text{green}}$, hence the properties have to be the same. This is made much clearer when considering the analyses given above as follows ($X=P_{\text{green}}, Y=P_{\text{red}}, FNG=F$ normally causes $G$):

$$X= \exists \forall F (Fx \land FNX \land \forall G (GNX \rightarrow G=F))$$

$$Y= \exists \forall F (Fx \land FNY \land \forall G (GNY \rightarrow G=F))$$

This analysis is intended to capture the two complex properties stated above. What is the difference between $X$ and $Y$? Nothing, which violates the assumption that there can be different colour phenomenology. I therefore believe that Identity and Fregean Content is incompatible.\(^{86}\)

This is not, however, enough to make FC support Phenomenal Ground; we still have Intentional Ground as an alternative even in the context of ME and NI. However, I think FC actually supports Phenomenal Ground directly, i.e. it enters into the conditional that I introduced at the beginning of this chapter:

**The FC conditional:** $\text{FC} \rightarrow \text{PG}$

What makes this plausible? First off it should be noted that FC is already entangled with Modal Equivalence: It seems rather strange to hold that the content of perception is Fregean consisting of modes of presentation presenting the normal cause of the phenomenal properties that one is having, without endorsing Modal Equivalence (cf. the discussion in fn. 54). Further, when assuming FC, the phenomenal properties explain, and therefore grounds, why one has exactly that mode of presentation, and not another one. Consider this question: Why is it so that *this* experience has *that* mode of presentation? When I experience cucumbers, why does the condition of satisfaction involve $P_{\text{green}}$, and not $P_{\text{red}}$? The natural answer is that this is because that experience is accompanied by $P_{\text{green}}$ and not $P_{\text{red}}$; the modes of presentation are “constructed out of” the phenomenal properties one instantiates when in a given visual state. Hence, at least a part of the ground for the representational property is simply that one has the phenomenal property that enters into the content.\(^{87}\)

This shows that accepting Fregean Content will be a supportive strategy for Phenomenal Ground. This supportive strategy turns on one very specific way of thinking about visual content and the most pressing objection would therefore be that visual content does not accord with FC, i.e. it is not Fregean in this specific sense. In the next section I will consider a

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\(^{86}\) This does not mean that Identity is incompatible with other accounts of perceptual content where the content is Fregean. It is just not compatible with an account that takes content to consist of modes of presentation that presents something through phenomenology in the sense that Fregean Content does.

\(^{87}\) It is not clear whether this should take the form of a full ground view or not.
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more general argument in favour of Phenomenal Ground, one that is independent of how one thinks about visual content.

4.3.2 The argument from Establishing Appearance

The argument to be developed here takes Establishing Appearance as a point of departure. This thesis states that there are some sound arguments in favour of the view that visual states are representational, that have premises about visual phenomenology and are establishing: the direction of inference follows the direction of the grounding relation. If EA holds, then I think it is clear that Phenomenal Ground follows directly. That is, this thesis enters into the following conditional:

The EA conditional: EA → PG

Establishing Appearance refers to a specific kind of argument. The clearest example of this argument-kind – and the one that sparked my interest in this argumentative strategy for Phenomenal Ground – is Susanna Siegel’s Argument from Appearing (AfA, for short). This argument goes as follows:

Premise (i): All visual perceptual experiences present clusters of properties as being instantiated.
Premise (ii): If an experience E presents a cluster of properties F as being instantiated, then:
Necessarily, things are the way E presents them only if property cluster F is instantiated.
Premise (iii): If necessarily: things are the way E presents them only if property cluster F is instantiated, then:
E has a set of accuracy conditions C, conveyed to the subject of E, such that C is satisfied in a world only if there is something that has F in that world.
Premise (iv): If E has a set of accuracy conditions C, conveyed to the subject of E, such that E is accurate only if C, then: E has a set of accuracy conditions C*, conveyed to the subject of E, such that E is accurate iff C*.
Conclusion: All visual perceptual experiences have contents. (Siegel 2011:45)

In the following, I will use this argument as the very incarnation of the kind of argument that Establishing Appearance makes reference to. It should be noted, however, that I think there is a range of other arguments out there that also belong to this kind. Many of them are also entangled with the case for phenomenal intentionality. This is important, as there is a close and interesting relationship between Phenomenal Ground and PIRP. I will return to this later.

Let us first, however, examine EA and the conditional that it enters into. There are three key elements in this section, the first concerns the meaning of the thesis: (1) what does it mean to say that an argument is establishing? When we understand what “establishing” means, we will also see that EA implies PG. All that remains is to consider whether it is actually true. This splits into two parts: (2) do the premises in AfA include premises that are about phenomenology? (3) Do we have good reasons for thinking that AfA is sound and establishing?

First things first. What does it mean to say that an argument is establishing? I use this term with a very specific meaning in the context of this thesis. It is intended to capture the
property that characterizes valid arguments where the direction of inference follows the direction of the grounding relation. This means that an establishing argument reveals the ground of the conclusion in its premises. The distinction between *establishing* and *valid-but-non-establishing* arguments is perhaps best conveyed through examples: Consider the argument that has a conjunction as the only premise and concludes with one of the conjuncts (a, below). This is a valid argument, but in a sense it is a strange argument. The strangeness stems from the fact that the conclusion partly grounds the premise, i.e. it partly explains the premise. This is an example of a *non-establishing*, but valid, argument. Consider in contrast the argument that has each conjunct as premises and which concludes with the conjunction (b, below). This has the feature that the direction of inference follows the direction of the grounding relation, i.e. the premises serve to fully explain the conclusion. This is an establishing argument.

\[
\begin{align*}
\text{Argument } a): & \\
1. & A \land B \\
\text{Hence: } & A
\end{align*}
\]

\[
\begin{align*}
\text{Argument } b): & \\
1. & A \\
2. & B \\
\text{Hence: } & A \land B
\end{align*}
\]

An even weirder example of the valid, but non-establishing is the argument that has as a premise \( p \) (any proposition), and which also concludes \( p \). This is valid; there is no safer inference than inferring what you are inferring from. But it is *non-establishing*: nothing can ground itself.

I think there is an important difference between arguments that are establishing and those that are not. This is not a new observation on my part; we find it already in the earliest characterizations of the grounding relation, perhaps clearest in the work of Bernard Bolzano. Bolzano is to a great extent the progenitor of the modern literature on ground. It is surprising to what extent the work he did already in the first half of the 19th century captures how metaphysicians today think of this relation. He approaches the grounding relations in a similar manner to how I introduced the notion of establishing arguments above, by contrasting two arguments. The first goes as follows:

‘nobody should prefer his own advantage to a greater advantage for others’.
‘if somebody destroys the essential means of livelihood of other persons in order to provide himself with unnecessary sensual pleasure, then he prefers his own advantage to the greater advantage for others’.
‘nobody should destroy the essential means of livelihood of other persons merely in order to obtain an unnecessary sensual pleasure’. (Bolzano 1837/1972:270 [his punctuation])

The second goes accordingly:

‘if the thermometer registers higher, then it is warmer’.
’in summer, the thermometer tends to be higher than in winter’.
’in summer it tends to be warmer than in winter’. (Bolzano 1837/1972:271)
According to Bolzano, there is a salient difference between the two. Both, however, make us see the truth of the conclusion with the “greatest clarity” once we grasp and accept the truth of the premises, i.e. both are valid. Still, there is something about the first argument, a relation between the “truths” that is not present in the latter, Bolzano observes. He calls this relation the relation between “ground and consequence” (Bolzano 1837/1972:271). It should be clear that the contrast Bolzano is targeting is the very same I want to capture with the distinction between valid and establishing arguments.

In some sense, establishing arguments are just a subspecies of explanation. This sounds perhaps strange, but we have already seen that there is a close relationship between grounding and explanation. More precisely, I think every case of grounding is a case of metaphysical explanation and vice versa (cf. section 3.2.1). This brings the distinction between arguments that are establishing and those that are not close to a well-known example from the philosophy of science: the so-called “flagpole case”. This example demonstrates an apparent problem with the deductive nomological model of explanation (the DN-model, for short), according to which any deductive consequence of a set of premises that include at least one “law of nature” constitutes scientific explanation. The flagpole case creates troubles for the DN-model by highlighting the possibility of explanatory asymmetries not captured by this definition, and it goes as follows. We can deduce the length of a flagpole from premises that include the length of its shadow and relevant facts concerning the sun’s position and the laws of optics. Hence, according to the DN-model, the length of the shadow partly explains the length of the pole. But this surely must be wrong, the direction of explanation runs the other way: The length of the pole (together with the position of the sun and optical laws) explains the length of the shadow and not the other way around. The flagpole case is no outlier, we will often be able to construct valid arguments that “run both ways” as in this case, i.e. the explanandum can take the role of conclusion and the explanans the role of premises, but also vice versa.

In the flagpole case – and more generally, in explanations in physical science – it seems like the asymmetry is due to the causal relationship in question: The length of the pole causes the length of the shadow, not the other way around (see Woodward 2017 for an introduction to the literature on scientific explanation). However, in non-causal explanation something else must facilitate the asymmetry. This is work for the grounding relation. The resulting picture is one where sound arguments constitute explanations if and only if the direction of inference either follow the direction of causation (causes form premises and effects form the conclusion) or follow the direction of grounding (grounds form premises and the grounded forms the
Establishing, as I use it, captures the smaller subset of valid arguments that constitute metaphysical explanations.

Hopefully, the examples discussed above suffice to convey the intended meaning of the term “establishing”. If so, we see why EA supports PG, since this thesis implies that some sound arguments reveal that the ground for the fact that a visual state is representational consist in facts about that state’s visual phenomenology. This leads us to question of what makes EA plausible. We consider first (2): Does AfA have premises that are about visual phenomenology? In answering this question, we can rely on Siegel’s own characterization of the argument:

The Argument from Appearing proceeds from premises about the phenomenal character of visual perceptual experience. The accuracy conditions that figure in its conclusion derive from the properties that are presented in visual phenomenology. Premise (i) claims that properties are presented in visual phenomenology, and premise (ii) links these properties to instantiation at a world, which is in turn linked to accuracy conditions in premises (iii) and (iv). (Siegel 2011:44)

According to Siegel, premise 1 holds that properties are presented in phenomenology. Hence, I take it to be quite clear that we can answer (2) positively: the Argument from Appearing do include premises that are about phenomenology.

The last question is more difficult to handle. To recap: (3) is AfA sound and establishing? Let us for the sake of argument accept that it is sound; the interesting point to consider is whether it would then be establishing. There are actually a few reasons for why we should think so. The most obvious reason is that Siegel is putting this argument forward as a part of her case for the Content View; hence she is trying to convince and explain to the reader why the view is true. The best way to do so would be, it seems, to offer arguments that establish, in the robust sense, the conclusion. This point would be strengthened if the argument also has the appearance of an establishing argument in the sense introduced above. Does this argument have the same apparent contrast to the valid-but-non-establishing arguments discussed earlier? To some extent I think this intuition is present. Something that seems relevant in this respect is that premise (i) appears easier to both understand and accept than the conclusion: The argument makes the conclusion intelligible.

Now, if the argument was valid-but-non-establishing, then this would mean either that the direction of grounding runs the other way (against the direction of inference) or that premise (i) states just the same fact as the conclusion. In the latter case the argument merely transforms one proposition into another proposition that expresses the same fact. These two possibilities seem, however, difficult to square with the fact that the argument appear to go from simpler facts towards a more complex fact that is rendered intelligible by the premises.
It should be clear that Siegel at no point relates AfA to the grounding framework or the question of explanatory priority between phenomenology and intentionality. What suggested the reading of the argument that culminated in the formulation of EA was her statement that the argument proceeds from facts about phenomenology, and that the accuracy conditions that constitute the content of visual experience derive from properties presented in phenomenology. Now, the main support that this thesis enjoys does not come from my idiosyncratic reading of this argument, but from a more widespread, albeit often unarticulated, idea that is captured in this kind of argument, notably in the literature on phenomenal intentionality.

I promised at the beginning of this section that I would return to the connection between PIRP and Phenomenal Ground. The way I see it, there is a clear tension here: I think there are many supporters of PIRP that clearly wants to endorse Phenomenology-first. We can even find the term grounding used in definitions of what phenomenal intentionality is, though sometimes it is used in a non-standard way that makes grounding compatible with identification (cf. Kriegel 2013). This, together with the fact that most of the core supportive arguments for the existence of phenomenal intentionality has focused on the Phenomenal Duplicate Intuition, was the reason why I defined phenomenal intentionality as intentional or representational properties that are necessitated by phenomenal properties (cf. Chapter 2).

All in all, it should be clear that PIRP harbours the aspirations for a strict-priority view; though when understood as necessitation of representational properties by phenomenal properties, it fails to be so. Focus on the Phenomenal Duplicate Intuition is what pushes it towards the purely modal position. What pushes it towards the strict-priority view, in contrast, is the implicit presence of Establishing Appearance. It is clear, I think, that EA and the conditional that it enters into is close to the heart of the phenomenal intentionality theorists wanting to endorse a strict Phenomenology-first view. Take for example Siewert (cf. chapter 2). Even if he most of the time is concerned with proving the Phenomenal Duplicate Intuition to hold in the case of phenomenally manifest properties, one could also read him as providing an establishing argument of the kind EA makes reference to. Consider again this passage:

First, consider some instance of its seeming to you as it does for it to look as if something is shaped and situated in a certain way, such as its seeming to you just as it does on a given occasion for it to look as if there is something X-shaped in a certain position. If it seems this way to you, then it appears to follow that it does look to you as if there is something X-shaped in a certain position. If this is right, then its seeming this way to you is a feature in virtue of which you are assessable for accuracy – that is to say, it is an intentional feature. (Siewert 1998:221)

Arguably, the last sentence sounds close to an Identity view; on the other hand, this argument could perhaps also be read in a similar fashion to Siegel’s AfA. The same tension is clear in Horgan & Tienson 2002 (cf. section 2.2.1).
What I mean by this is that EA does not lean solely on Siegel’s argument, and the extent to which it is sound and establishing. Rather, this thesis is supported by any argument to the effect that properties being presented in phenomenology explain the presence of representational properties. This is the most influential idea motivating the Phenomenology-first view, I believe.

Arguably there is something very appealing by EA: it seems to me that there is a sense in which the Argument from Appearing is sound and carries establishing force. However, the appeal of this thesis must be weighed against the appeal enjoyed by UR. Since EA and UR leads to incompatible positions, they are themselves incompatible. Thus, we cannot decide simply from considering one of the key theses alone whether to endorse it or not. Rather, they make up a field of considerations that needs to be assessed holistically. The last piece of the puzzle, the Simplicity thesis, will be presented in the next section. First, some comments regarding the prospects of developing the Phenomenal Ground position are in order.

The question to consider is this: How does representation of features that are not phenomenally manifest relate to the Phenomenal Ground view? As we saw in chapter 2, the Phenomenal Duplicate Intuition is only plausible when restricting to the smaller set of phenomenally manifest features. Representation of particular individuals and natural kinds that share visual looks, for instance, is not plausibly necessitated by phenomenal properties. Hence, these aspects cannot be fully grounded by phenomenal properties. One could then, when assuming Phenomenal Ground, take the representation of phenomenally manifest features to be grounded by phenomenal properties, and let representation of other features be completely independent of phenomenology. However, there is a way in which one can take representation of individuals and kinds to be partially grounded in phenomenal properties when adopting PG. The idea is to combine Phenomenal Ground with Fregean Content: this way visual content consists in modes of presentations of normal causes. This opens the possibility of taking those properties presented by these modes of presentation to make up a secondary layer of referential content. On this view, visual content comes in two layers similar to Fregean theories of meaning.88

Particular individuals and natural kinds that share visual looks could now be included in the referential content given suitable modes of presentation in the Fregean layer of content. Which individual/kind that is represented would depend in part on the mode of presentation and

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88 Fregean theories of meaning take every linguistic expression to be associated with both a Fregean sense, here understood to be a mode of presentation, and a reference. The interesting point is that the sense of an expression partly explains what the reference is. It does so by being a mode of presentation, which in turn means that it purports to present an object or a property by giving a condition of satisfaction on the world. If the mode of presentation succeeds in presenting something, then there is something that satisfies the condition.
in part on how the world is.\textsuperscript{89} This means that the mode of presentation would partly ground the reference. If we have PG, this would mean that phenomenal properties in turn partly ground the referential layer of content. In this way, a layer of content that is modally independent of phenomenal properties might still cohere with a Partial Phenomenal Ground view.\textsuperscript{90} The ability to accommodate referential content in this way only serves to strengthen the appeal of PG.\textsuperscript{91}

### 4.4 Identity reconsidered

We started this chapter by considering the Identity position, according to which the phenomenal properties of perceptual states are identical with representational properties. It is a necessary requirement for the truth of Identity that Modal Equivalence is strengthened to ME\textsuperscript{+}. Given ME\textsuperscript{+}, the Intensional Criterion of property identity would suggest that Identity is true, for this reason I considered this as our starting point. Now, arguably this route to Identity looks kind of weak compared to the argumentative strategies in place for Intentional Ground and Phenomenal Ground: UR, FC and EA all look to be more strongly motivated than ME\textsuperscript{+} and the Intensional Criterion. Accepting any of them pushes us away from Identity and towards one of the two grounding positions. However, the best case for Identity is yet to be presented. In this section I will discuss the fourth key thesis of this chapter:

**Simplicity:** the theoretical value of simplicity outweighs the reasons we have for accepting UR, FC and EA.

If one accepts this, then one can support Identity by an *inference to the best explanation*: it is the best by being the simplest. I think this strategy carries a lot of weight. I develop it in more detail below.

#### 4.4.1 The argument from Simplicity

The three key theses discussed up to this point all pushes us away from Identity: UR breaks with ME\textsuperscript{+}, a necessary requirement for the Identity position; and even if we have ME\textsuperscript{+}, then FC and EA still applies and pushes us towards Phenomenal Ground. However, there is one way in

\textsuperscript{89} Remember that FC does not take visual modes of presentation to be *de re* (cf. fn. 51).

\textsuperscript{90} This is why Modal Independence does not, strictly speaking, entail Independence. However, it is still most plausible to hold this view when taking visual content to be Fregean. This involves, of course, accepting ME.

\textsuperscript{91} The point developed here is not a new suggestion. We find basically the same point in Horgan & Tienson 2002:

> Phenomenal intentionality thereby determines a complex set of presuppositions concerning the existence of, the persistence of, and various features of, the sorts of entities presented in experience: presuppositions about individuals (including flora, fauna, and other creatures like yourself), kinds, properties, relations, processes, and events of that world. [...] Thus, wide truth conditions for those beliefs are determined by phenomenal intentionality plus the actual satisfiers of the relevant presuppositions. (Horgan and Tienson 2002:528)

According to them, the content that is shared by phenomenal duplicates, phenomenal intentionality, consists of narrow truth conditions that purport to present external objects, properties and so on. The worldly constituents that is being presented this way, enter into what they call wide truth conditions. See also Loar (2003) for similar ideas.
which Identity clearly trumps PG and IG: it is the *simplest* account. A general rule when theorizing, both in science and philosophy, is that simpler is better. Therefore, if the choice is between these three, then Identity gets a little boost solely from being the simplest explanation. I make this restriction because it is not clear that Identity is simpler than Independence. These two positions are too far apart to make any sense of a comparison. My claim is rather that if we compare Identity with Phenomenal Ground and Intentional Ground, then there is no question that Identity offers the simplest account. Hence, only in the context of Modal Equivalence and Non-Independence should we attempt an evaluation of the value of this theoretical virtue. Given these assumptions, the question becomes this: how much does the theoretical value of simplicity boost Identity compared to PG and IG?

I think it is clear that we should not only consider the value of this theoretical virtue *in case we have necessarily co-extensiveness*. If Identity is the simplest account on the offering, we should consider whether the theoretical values of this position are so great that the prospects of identification itself might justify taking the properties to be necessarily co-extensive. What does this mean? It means that when considering UR1 we must take into account that it is incompatible with the simplest account. The reasons we have for accepting UR1 needs therefore to be so good as to justify ruling out Identity. Whether or not to accept UR1 is a matter of weighing the reasons on each side against each other: On the side of accepting UR1 there are for instance the reasons we have for thinking that the same representational properties is what unites conscious and unconscious perception. On the side of rejecting UR1, there are the reasons we have for accepting Identity, among them simplicity considerations. All in all, if we accept ME and NI, we have to consider whether the value of simplicity can outweigh the reasons we have for believing in either Phenomenal Ground and Intentional Ground.

This is a very difficult question because it asks whether the value of simplicity outweighs the reasons we have for believing in the two positions *in general*. If, in order to answer this question, we had to consider every argument that could be produced on the side of IG or PG, then the task would truly be extraordinary. However, I think we do not need to undertake such a task. We only have to consider the *best cases* for each position. UR, FC and EA do not only represent *possible* strategies for supporting Intentional Ground and Phenomenal Ground respectively, rather I have claimed in this chapter that they capture *the best cases* for each position. The value that simplicity bestows on Identity needs therefore only to be compared to the confidence we have in these three theses. Accepting *Simplicity* means that we value the theoretical virtue simplicity more than our confidence in these three. This can either be the result of very low confidence in all of UR, FC and EA. Or it is the result of a great appreciation of
simplicity in itself. Either way, it means that we can adopt Identity on the grounds of an inference to the best explanation. The reason why it is the best is that it is the simplest, and no other alternative trumps the attractiveness of this theoretical virtue. Simplicity enters into the following conditional:

The Simp. conditional: Simp. → ¬PG ∧ ¬IG

In conjunction with ME and NI, this conditional makes Simplicity entail Identity. We find the appeal to simplicity in the writings of those who endorse Identity, take Tye as an example:

More generally, my claim is that experiences and feelings are sensory representations that elicit various sorts of cognitive reactions, and that differences in what the sensory representations represent go along with differences in what it is like to undergo the experiences and feelings. Again, the simplest explanation of this pairing is that difference in what it is like are simply intentional differences. (Tye 1995:134)

Tye reaches the conclusion that phenomenal properties are identical with representational properties by taking this to be the simplest account of the fact that they come together in the way they do. The way I see it this is correct: The strongest case to be made for Identity goes through an inference to the best explanation. Adam Pautz’ overall argument for the Identity view is also to a great extent an inference to the simplest explanation (see especially 2010:291).

4.4.2 Reduction

The main theme of this thesis is the direction of explanation between representational properties and phenomenal properties in visual perceptual states. As we have seen now over the course of four chapters, this is a question of whether one aspect has metaphysical priority, whether facts about one aspect grounds facts about the other. A secondary theme has been reduction, which is another form of priority. We saw in chapter 3 how this relates to the main theme: Reduction consists of two core elements, identification paired with conceptual priority. That is, we can only have reduction when we have Identity, but we also need something more. Something needs to secure the asymmetry of reduction claims. Given Identity, phenomenal properties are identical with representational properties; hence there is no asymmetry to be found at the layer of reference. There must therefore be a difference at the layer of meaning, or sense. That is, a difference in priority or basicness between concepts picking out the same object, property, facts or events.

Now, let us for the sake of argument assume that Identity holds. Do we have any reason to think that reduction to intentionality or reduction to phenomenology holds? Before we can answer this question, we need to clarify what “conceptual priority” means in this context. What makes for a relevant difference between concepts, what gives one conception priority? This depends on what we are talking about. Arguably there are different ways in which co-extensive concepts could differ with respect to something that deserves the name “priority”.

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Some conceptualizations have priority in the sense that they are acquired first and “anchors” other concepts about the same worldly constituents. Priority understood like this, tied to acquisition of concepts, is interesting in its own right, but I think it is quite clear that this is not the kind of priority that is needed in order to secure the asymmetry of reductive claims.

Reduction claims teach us something; it is therefore an epistemological difference that does the work in cases of reduction. I take it that this is also the point van Riel makes in the following passage:

What is the relevant difference between the meanings of ‘water’ and ‘H₂O’ in virtue of which water reduces to H₂O, but not vice versa? Prima facie, it seems that the concept of H₂O is more informative than the concept of water. This is the idea underlying Crane’s claim that the reduced phenomenon is made more intelligible by being shown to be identical to the reducing phenomenon. (van Riel 2013:756-757)

If we follow this idea, a concept needs to be more informative, or make the reduced term more intelligible, in order to be truly reducing. I think there are two main ways in which co-extensive concepts can differ in this epistemological respect: First, one concept might reveal the constituents of the referent and thus have priority over “simple” concepts. This is the route pursued by van Riel (2013:758), and the case with H₂O and water is an exemplary case: both concepts pick out the same kind in nature, but H₂O reveals that the kind is constituted by the elements hydrogen and oxygen. This makes the reduced concept more intelligible by teaching us something new about the reference: namely the constituent structure.

The second route builds on the idea that concepts acquire their meaning through their connections with other terms of the same theory (this applies to both scientific as well as “folk” theories). This means that that the most basic concept is the one that belongs to the most basic theory or vocabulary. Which theory is basic? I do not intend to give a full account of this here, but I think it is plausible that the theory with the widest scope, the one applicable to most phenomena, has priority. In what way does this make the reduced concept more intelligible? This is because concepts within a theory are explanatory related. That is after all why they form a theory: they relate and explain the relevant subject matter. Hence, if concept A is co-extensive with concept B, but A belongs to the vocabulary of a theory with much wider scope, then (all else being equal) giving the referent of B under the concept of A lets us understand its relation to a wider range of phenomena. In this way it teaches us something new about the referent of B.

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92 This is something that Kriegel has discussed (2011: chapter 1). His view on phenomenal properties and representational properties fall under Identity. Further, he holds that the way in which we acquire the concept of intentionality is through our own experiential states. This anchors the more general conception of intentionality that is applicable to other kinds of mental states, and plausibly other non-mental phenomena.

93 If the concepts differ radically in how important they are to the relevant theory, then this is something that perhaps could make a concept of a narrow theory have priority over a co-extensive concept of a wide theory.
Thus, we have two routes to epistemological conceptual priority, i.e. two routes to reduction: (1) reducing term reveals, while reduced term hides, the constituent structure of the referent; (2) reducing term belongs to a theory or a vocabulary with wider scope than the reduced term.

In light of these two routes, there is no wonder why reduction and reductive explanation are so often entangled with the microphysical. Both clearly work together so that the layer of microphysical description will be privileged: The concepts of microphysical theories will often give referents in terms of constitution, as to fit with the first route. And if this is not directly the case, the scope of the microphysical theories are so wide that the second route will privilege those concepts. The theories do after all apply to everything “physical”. The entanglement that reduction has with microphysical concepts is so prevalent that one will often find discussions over “reduction” or “reductive explanation” focusing solely on this level of description.\(^94\) However, it is wrong to take this connection to be necessary. What is important is that the reducing concept is epistemologically prior in the sense worked out above. Microphysical concepts are naturally privileged in this setting, but there can be reduction without those in play.

Now, could one of the two routes mentioned above give us either reduction to intentionality or reduction to phenomenology? I consider both routes in turn, and conclude that the second route makes reduction to intentionality quite plausible (on the assumption that Identity holds). But this depends on whether an unrestricted version of Identity is plausible.

First, do we have any reason to think that one conceptualization is epistemologically prior due to revealing constituent structure? Since we are assuming Identity when discussing the prospects of reduction, the structure of the referent will of course be the same. The question is whether the concepts reveal the structure of the referent in a similar fashion, or whether one conceptualization to a greater extent reveals while the other hides constituent structure. It is not clear that there is a big difference here, but representational properties do offer a clear structure of their referents: they consist of representational manner and content. The content is further broken down into different constituents: properties and objects, or modes of presentations of these. In contrast, we often think of phenomenal properties as unstructured, just as the “what it is likeness” of being in that state. This could lead to the idea that representational properties reveal a structure that is not captured by talk of phenomenal properties. However, I think this is not so: Even if the structure of representational properties is more directly available, a corresponding structure could be found in the vocabulary used to talk about phenomenal properties. To illustrate, take an example: say you perceive a red tomato in front and to the left.

\(^{94}\) This is the case in the debate between Chalmers & Jackson 2001 and Stalnaker & Block 1999.
of you. The representational property characterizing this state could now be captured like this: you represent in a conscious visual manner the content that there is a red tomato (or a red body of a certain shape) to your left. How would you describe the same phenomenal property? It is natural to say that what it is like to be in that state is the following: it is like seeing a red tomato to the left. There is an obvious correspondence between the constituents of these two complex concepts. Hence, even though one might think of them as unstructured, it is clear that when describing phenomenal properties we use a corresponding structure to that of representational property-concepts. I therefore take it that there is no conceptualization that has a relevant epistemological priority on this first route.

What about the other route; is it so that one concept belongs to the vocabulary of a theory with much wider application? There appears to be a range of intentional states that are not phenomenal, hence phenomenal properties of perceptual states seem to be a subset of the much larger set of all representational properties. Perhaps this makes for a relevant epistemological difference? We have already seen that the intentional is not restricted to the phenomenally conscious. Many mental states have intentionality and even content without being phenomenally conscious. One example would be unconscious perception. Further, some philosophers also assume that the same content can be shared between conscious and unconscious states (again see Chalmers 2010a:344). Hence, it is clear that the set of representational properties is not contained in the set of phenomenal properties.

However, proving that there are representational properties that do not belong to the set of phenomenal properties does not in itself prove that phenomenal properties form a subset of representational properties. Conscious visual states are, after all, not the only cases of phenomenally conscious states. Take for instance pains and moods, two kinds of mental states that clearly are phenomenal. There is something it is like to be in pain or in a given mood. Now, it does not follow that just because phenomenal properties of visual states are identical to representational properties, that pains and moods are tractable in the same way. Perhaps pains or moods are not identical with representational properties. If that is so, then all phenomenal properties are not included in the set of representational/intentional properties. And therefore, it would be difficult to compare the relative size of the scope of the two vocabularies. Both would have a range of application falling outside the other.

It is important here to note that those who take the Identity position most often take it to apply to every phenomenal property. This is at least the position of Tye (1995, 2000) and Dretske (1995). They do not make a restriction to perceptual phenomenal properties, but think that also pains, moods, etc., are identical with representational properties. Let us call this
extended version Identity for Identity$^+$ (I$^+$, for short). If Identity$^+$ is true, then phenomenal properties is truly a small subset of representational properties. And in that case, reduction to intentionality (RI, for short) seems quite plausible: Learning that phenomenal properties are identical to representational properties, a kind of property that captures so many non-phenomenal mental states, truly teaches us something new and interesting. Based on this I believe the following conditional holds:

**The RI conditional:** $I^+ \rightarrow RI$

Is $I^+$, the antecedent of this conditional, really plausible? I think that it is under the assumption that Identity is true in the first place. The reason is that phenomenal properties seem, introspectively, to form a unified kind: there is something important in common between all phenomenal properties. If Identity is true, but I$^+$ is false, we would apparently loose this: The visual phenomenal properties would be identical with representational properties, while pains, moods, orgasms, etc., would be other kinds of properties. Apparently, this makes for a very disintegrated kind, counter to our introspective evidence.

Much more could be said about the plausibility of I$^+$. I will, however, have to leave the discussion at this point. The important take-home message is what makes for epistemological conceptual priority – the kind relevant for reduction – between co-extensive concepts: either revealing constituents or belonging to a theory or vocabulary with wider application. In light of this, I think only reduction to intentionality is plausible. This again is dependent on I$^+$ being true.

### 4.5 Chapter summary

In this fourth and final chapter of my thesis, I have attempted to present a clear map of the theoretical possibilities we face if we adopt Modal Equivalence and the Non-Independence thesis. Given these two assumptions, Independence is ruled out, and exactly one of Identity, Intentional Ground and Phenomenal Ground must be true. I have presented a structure of theoretical space that in its most precise form consists of four key theses: **Unified Representation, Fregean Content, Establishing Appearance** and **Simplicity**.

As I argued in section 4.2.1, adopting **Unified Representation** is the best strategy for supporting Intentional Ground. This thesis consists of two sub-hypotheses:

**UR1:** The representational properties are the same in conscious and unconscious visual states.

**UR2:** Representational properties have the same ground in conscious and unconscious visual states.

The main idea behind the argument for Intentional Ground from UR is that UR1 proves Identity wrong, and UR2 proves Phenomenal Ground wrong, leaving Intentional Ground the
only position left. Importantly, only a partial grounding view is compatible with this strategy. I complemented this indirect argument with a positive characterization of the view.

In the next section, I presented what I think is the best case for Phenomenal Ground. This consisted of two main arguments. The first turns on accepting Fregean Content:

**Fregean Content:** The content of conscious visual states consists in modes of presentation that presents the normal cause of the phenomenal property one is having.

As I have shown, FC is incompatible with Identity. Further, FC is most likely directly linked with PG, meaning that adopting this thesis alone will suffice for securing Phenomenal Ground. The other argument for this position stems from accepting Establishing Appearance:

**Establishing Appearance:** Some sound arguments in favour of the view that visual experience is representational have premises about visual phenomenology and are establishing the direction of inference follows the direction of the grounding relation.

This leads to Phenomenal Ground, since an establishing argument will reveal the ground for its conclusion in the premises: if EA is true, then there are some sound and establishing arguments that conclude with the presence of representational properties in perceptual states, which has premises about the visual phenomenology of that state. The consequence is that the ground for the fact that one instantiates representational properties in perception, consists in facts about phenomenology. Both FC and EA leads to Phenomenal Ground directly, adopting only one of them suffices for ending up with this view, though they are most naturally taken together if accepted at all. Combining FC and IG will also make room for a layer of referential content that is partly explained by phenomenal properties and in part by how the world is. This way, phenomenal properties partly ground the representation of individuals and kinds sharing visual looks even though these aspects are not plausibly necessitated by phenomenal properties.

In the end, I returned to the Identity position. The strongest reason for believing this stems from Simplicity:

**Simplicity:** The value of simplicity outweighs the reasons we have for accepting UR, FC and EA.

With this in place, we arrive at Identity through an inference to the best explanation. The guiding idea behind this line of thought is that Identity is the simplest account, compared to Intentional Ground and Phenomenal Ground. Therefore, if the choice is between these three, we have to compare our confidence in PG and IG with the boost simplicity gives Identity. UR, FC and EA make up the best cases for the grounding views. Hence, if we were to give simplicity more weight
than our confidence in any of these there, the Identity position would be the way to go. All in all, the four key theses developed in this chapter enter into the following conditionals:

**The UR conditional:** $\text{UR} \rightarrow \neg \text{PG} \land \neg \text{I}$

**The FC conditional:** $\text{FC} \rightarrow \text{PG}$

**The EA conditional:** $\text{EA} \rightarrow \text{PG}$

**The Simp. conditional:** $\text{Simp.} \rightarrow \neg \text{PG} \land \neg \text{IG}$

Remember that **The UR conditional** allows us to infer IG from UR when paired with ME and NI. The corresponding point holds for **The Simp. conditional**. Hence, given ME and NI, these four conditionals can be compared to a collection of vectors pointing in three different directions (the FC- and EA-conditional both point towards PG), each pushing us towards one of the three views under discussion. The strength of the push is measured in the degree of plausibility that we would attribute to each antecedent: if we give UR high plausibility, then this pushes us towards IG. The purpose of this metaphor is to convey the sense in which one’s acceptance attitudes towards the four key theses singled out in this chapter determines which position one should adopt: One cannot consider one of these four in isolation, and from that judge whether one accepts the view that it leads to or not. Rather, one must weigh the plausibility that one ascribes each thesis up against each other. Even if one gives one thesis quite high plausibility, the push that this delivers towards Identity, Phenomenal Ground or Intentional Ground could be countered by giving another thesis an even higher degree of plausibility.

The secondary theme of reduction was also discussed in this chapter. Reduction is only compatible with Identity. Epistemological conceptual priority accounts for the asymmetric “direction” that a reduction claim has. In section 4.4.2 I provided a brief sketch of two ways in which a concept might be prior to co-extensive concepts in the way that is relevant for reduction: (1) if concept A reveals constituent structure in contrast to the co-extensive concept B, then B reduces to A. (2) if concept A is connected to a (folk) theory or vocabulary with a wider scope than a co-extensive concept B, then B reduces to A. In light of this framework, I think it is very plausible that reduction to intentionality holds, *given an unrestricted Identity position*, i.e. a position holding that *all* phenomenal properties are identical to representational properties, not only visual ones. This resulted in the following conditional:

**The RI conditional:** $\text{I}+ \rightarrow \text{RI}$

This conditional represents the last finding of the thesis.
Concluding summary

This concludes my project. We started out with the question of how the phenomenal and representational properties of visual states are explanatory related. This is a question that admits of four answers: that the two domains are explanatory independent, that they are identical, that phenomenal properties have explanatory priority or that representational properties have explanatory priority.

I argued over the course of chapter 2 and 3 that explanatory priority is not something that can be captured by purely modal ideology. Rather, the two priority-views should be understood in terms of the notion of ground. Still, the question of modal correlation makes up an important crossroad when confronted with our main question. I argued in chapter 2 for the Modal Correlation thesis, according to which the modal correlation in place between phenomenal properties and representational properties in conscious visual states is one of two:

**Modal Equivalence:** phenomenal properties and representational properties are modally equivalent in conscious visual experience, when restricting to phenomenally manifest features.

**Modal Independence:** phenomenal properties and representational properties are modally independent of each other in conscious visual experience, even when restricting to phenomenally manifest features.

Considering this, we saw in chapter 3 that the case for Independence goes through Modal Independence. In this last chapter I pursued the question of what to believe if Modal Equivalence holds. I did not in the end mount an argument that supports one of these views, rather I gave the best reasons for thinking that each of them hold. The case for Intentional Ground goes through Unified Representation, the case for phenomenal Ground goes through Fregean Content or Establishing Appearance, while Simplicity marks the strongest case for Identity.

Reduction has been a secondary theme of the thesis. The most important point developed in that regard is the distinction between the metaphysical explanatory priority of grounding and the epistemological conceptual priority of reduction. As I have developed this notion, reduction is only possible when we have Identity. Further, I think reduction to intentionality is plausible given an unrestricted Identity position, i.e. one holding for all kinds of phenomenal properties.
Literature


On the Direction of Explanation in Conscious Visual States


