

## The Price of Twin Earth<sup>1</sup>

### Abstract

Liberals about perceptual contents claim that perceptual experiences can represent kinds and specific, familiar individuals as such; they also claim that the representation of an individual or kind as such by a perceptual experience will be reflected in the phenomenal character of that experience. Conservatives always deny the latter and sometimes also the former claim. I argue that neither liberals nor conservatives have adequately appreciated how the content internalism/externalism debate bears on their views. I show that perceptual content internalism entails conservatism when conjoined with one other, extremely plausible premise. Hence, liberals are committed to perceptual contents externalism, yet they have failed to fully address the consequences that this has for their view. Moreover, the argument is easily adapted to perceptual experiences of Twin Earthable properties, like colour and shape. I use this last result to show why existing conservative arguments that appeal to Twin Earth plausibly overgeneralize.

**Keywords:** Perceptual content, Phenomenal character, Liberalism, Conservatism, Content internalism, Content externalism

### 1. *Introduction*

Two debates have received relatively little contact with one another in the philosophy of perception. The first is between liberals and conservatives about the contents of perceptual experiences. Liberals make two claims. First is *the liberal's content claim*: perceptual experiences can represent kinds—including natural kinds—and specific, familiar individuals as such. Second is *the liberal's phenomenal reflection claim*: the representation of a kind or an individual as such by a perceptual experience will be reflected in the phenomenal character of

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that experience (Bayne, 2009, 2016; Fodor, 1983: 94-7; Peacocke, 1983; Scholl and Gao, 2013; Siegel, 2006; 2010, Ch. 4; Siewert, 1998: 255-259; Strawson, 1974; 1979; Van Gulick, 1994).<sup>2</sup>

Conservatives always deny the liberal's phenomenal reflection claim, and some go one step farther by also denying the liberal's content claim (Brogaard, 2013; Byrne, 2009; Clark, 2000; Dretske, 1995: 66-73; 2015; Jackendoff, 1987; Langsam, 2000; Lormand, 1996; McGinn, 1982; Pautz, 2009; Price, 2009; Prinz, 2012, 2013; Reiland, 2014; Tye, 1995).

The second debate is between perceptual content internalists and perceptual content externalists. Internalists claim that only subject-internal factors determine the contents of perception with metaphysical necessity (Farkas, 2008; Matthews, 1988; McGinn, 1989; and Segal, 1989a, 1989b, 1991). Perceptual content externalists claim that environmental factors also play a role (Block, 1990; Burge 1986a, 1986b, 1988; 2007, Introduction; 2010, Ch. 3; Chalmers, 2012: 324-336; Davies, 1991, 1993, 1997; Millikan, 1989).<sup>3</sup> If internalists are right, then it is metaphysically impossible for perceptual content to differ between intrinsic duplicates; if externalists are right, then intrinsic duplicates can differ in perceptual content.

I shall argue that the outcome of the perceptual content internalism/externalism debate carries a number of important consequences for the liberalism/conservatism debate. These consequences have largely, in some cases entirely, been overlooked in the literature thus far.

The paper proceeds in two stages. After addressing some preliminary matters in §2, the first stage comes in §3 where I offer a Twin-Earth-based argument for the following entailment:

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<sup>2</sup> The phenomenal character of a perceptual experience is simply whatever it is like to have that perceptual experience.

<sup>3</sup> A third debate between phenomenal character internalists and phenomenal character externalists shall become relevant in §4. The former claim that the phenomenal character of perceptual experience supervenes with metaphysical necessity upon the physical/functional states of the subject's central nervous system. The latter claim that the supervenience basis of phenomenal consciousness includes environmental factors.

*Internalism* → *Conservativism*: Perceptual content internalism and one other claim, *Symmetry*, conjointly entail that perception cannot represent kinds or individuals as such.

*Symmetry* is the claim that we should not draw arbitrary distinctions when attempting to determine which perceptual experiences are veridical and which are non-veridical (§3.3).

*Internalism* → *Conservativism* itself may not be particularly surprising, but some of its consequences are. The second and most important stage of the paper consists in presenting these consequences. Liberals must perform modus tollens on *Internalism* → *Conservativism*. Since they will not want to reject *Symmetry*, as we shall see, this means that they must reject perceptual content internalism. This raises a number of difficult questions for their phenomenal reflection claim (§4).

Conservatives will want to perform modus ponens on *Internalism* → *Conservativism*. As we shall see in §5, however, the argument for *Internalism* → *Conservativism* can be generalized to apply to twin earthable properties in general. Since Twin Earth cases for such paradigmatically perceptible properties as colour and shape (among others) exist in the literature (Block, 1990; Chalmers, 2012: 329-331; Davies 1992; 1997; Hurley, 2008; Thompson, 2010), conservatives who would perform modus ponens on *Internalism* → *Conservativism* risk proving too much. In §5, we shall see some examples of this sort of conservative argument in the literature.

I want to emphasize that the argument of §3 is not an argument for conservativism; it is an argument for an entailment. How one should respond to that entailment—by performing modus ponens or modus tollens—is another matter. The aim of this paper is to show that both

conservatives and liberals face significant challenges in performing either modus ponens or modus tollens on Internalism→Conservatism.<sup>4</sup> Both responses come with a price.

## 2. *Terms of the Debates*

### 2.1. *Liberalism and Conservatism*

The liberalism/conservatism debate concerns what sorts of properties our perceptual experiences can attribute to their objects and whether or not those attributions correspond to any phenomenal differences in our perceptual experiences. For instance, could I ever see someone, whoever it happens to be, *as being Angela Merkel* such that we would need to check whether or not the person that I saw was Angela Merkel in order to determine whether my visual experience was fully veridical? Could I ever see a creature, whatever sort of thing it actually is, *as being a tiger* such that we would need to check whether or not the creature that I saw was a tiger in order to determine whether my visual experience was fully veridical? Call such questions *individual/kind representation questions*. If my visual experiences can represent Angela Merkel or tigers as such, will my visual experiences that do so differ in their phenomenal character from those that do not? Call such questions *phenomenal difference questions*. Liberals answer in the positive to both sorts of questions; all conservatives answer in the negative to phenomenal difference questions, and some also answer in the negative to individual/kind representation questions.

### 2.2 *Perceptual Content Internalism and Externalism*

Perceptual content internalists claim that only subject-internal factors play a role in determining the contents of perception with metaphysical necessity (Matthews, 1988; McGinn,

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<sup>4</sup> Thanks to an anonymous referee for making the particularly helpful suggestion that I frame the dialectic in terms of performing modus ponens or modus tollens on Internalism→Conservatism.

1989; and Segal, 1989a, 1989b, 1991). Perceptual content externalists claim that environmental factors also play a role (Block, 1990; Burge 1986a, 1986b, 1988; 2007, Introduction; 2010, Ch. 3; Chalmers, 2012: 324-336; Davies, 1991, 1993, 1997; Millikan, 1989). Different versions of these views can be generated by drawing the boundary between what counts as subject-internal and what counts as subject-external in different ways. There are two ways of doing so in the literature.

The most common way of drawing the subject boundary is in terms of the physical or functional constitution of the subject or her central nervous system.<sup>5</sup> Tyler Burge describes internalism (also known as ‘individualism’) as the view that mental states and properties, ‘...could not be different from what they are, given the individual’s physical, chemical, neural, or functional histories, where these histories are specified non-intentionally and in a way that is independent of the physical or social conditions outside the individual’s body’ (1986b: 4). In parallel, Martin Davies describes externalism about a kind of mental property as, ‘...the thesis that whether a person (or other physical being) has that property depends, not only on conditions inside the person’s skin, but also on the person’s environment and the way that the person is embedded in that environment’ (1998: 322). And Gabriel Segal characterizes subject-external factors as those that reside in the subject’s ‘extracranial environment’ (1989a: 189; see also, Block, 1990: 514-515; Matthews, 1988: 81-82; McGinn, 1989: 2)

Drawing the subject boundary in terms of the subject’s physical/functional constitution allows us to treat perceptual content internalism as a modally strong, local supervenience claim (Segal 1989a: 189; 1991: 485). For instance, Martin Davies describes internalism as, ‘...a claim

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<sup>5</sup> Throughout this paper, I employ a ‘short-arm’ formulation of functional organization that defines input/output states in terms of ‘skin-in’ factors: possible states of the subject’s sensory periphery and motor effectors. I never employ ‘long-arm’ functionalism, which defines the subject’s input/output states in terms of the objects and events in her environment that her body interacts with.

of local supervenience, since it says that the mental states or properties of an individual are fixed by what goes on—physically, chemically, neurologically, or functionally—within the boundaries of that individual’s body’ (Davies, 1997: 312). Shortly thereafter he adds that, ‘What is principally at issue’ in the debate, ‘is a modally strong local supervenience claim...’ (Davies, 1997, 312). Such observations allow us to utilize a precise formulation of:

*Standard Perceptual content internalism:* If a subject,  $x$ , in a possible world,  $w$ , has a perceptual state,  $s$ , that attributes a property,  $P$ , to the object(s) of  $s$  (if any,  $x$  could be hallucinating), and  $y$  is a physical/functional duplicate in a possible world,  $w^*$ , of  $x$  in  $w$ , then  $y$  has a perceptual state,  $s^*$ , that attributes  $P$  to the object(s) of  $s^*$  (if any,  $y$  could be hallucinating).

*Standard perceptual content externalism* can be minimally understood as the negation of this claim.

The second way of understanding the subject boundary treats the subject’s stream of phenomenal consciousness as internal to the subject and everything else, including the physical and functional states of the subject’s brain and body, as subject-external.

Katalin Farkas (2008) develops and defends this sort of *phenomenal content internalism* as a global thesis about all mental contents, but it is easy to formulate a more restricted version of her view that applies to perception alone. As with standard perceptual content internalism, we can treat this thesis as a modally strong supervenience claim:

*Phenomenal perceptual content internalism:* If a subject,  $x$ , in a possible world,  $w$ , has a perceptual state,  $s$ , that attributes a property,  $P$ , to the object(s) of  $s$  (if any,  $x$  could be hallucinating), and  $y$  is a phenomenal duplicate in a possible

world,  $w^*$ , of  $x$  in  $w$ , then  $y$  has a perceptual state,  $s^*$ , that attributes  $P$  to the object(s) of  $s^*$  (if any,  $y$  could be hallucinating).

*Phenomenal perceptual content externalism* can be minimally understood as the negation of this claim.

If standard perceptual content internalists are correct, then perfect physical/functional duplicates will necessarily have identical perceptual contents. For instance, we and our brain-in-a-vat (or body-in-a-vat) counterparts will necessarily have perceptual experiences with identical contents. If phenomenal perceptual content internalists are correct, then perfect phenomenal duplicates will necessarily have identical perceptual contents. For instance, if disembodied Cartesian subjects are possible (and I am not claiming that they are), then we and our Cartesian counterparts will have perceptual experiences with identical contents. On the other hand, if standard/phenomenal perceptual content externalists are correct, then it will be metaphysically (perhaps even nomically) possible for physical/functional/phenomenal duplicates to differ in perceptual content.

Henceforth, I shall use *perceptual content internalism* to refer to both standard and phenomenal perceptual content internalism simultaneously. When discussing only one of the two formulations, I shall use the appropriate modifier.

### *3. Perceptual Content Internalism and The Liberal's Content Claim*

In this section, I argue for:

Internalism → Conservativism: Perceptual content internalism and Symmetry  
conjointly entail that perception cannot represent kinds or individuals as such.

I do so by addressing first standard and then phenomenal perceptual content internalism.

I want to emphasize that the arguments of this section are not arguments for conservativism; they are arguments for Internalism → Conservativism. The goal of this paper is to show that this entailment raises problems for both liberals and conservatives, not to pick a side within that debate.

### 3.1 *Standard Internalism → Conservativism*

Consider the following scenario: There exists a perfect physical/functional duplicate of our solar system and everything in it. While Chris looks at Pat on Earth, there is a perfect physical/functional duplicate of Chris looking at a perfect physical/functional duplicate of Pat on Duplicate Earth.<sup>6</sup> We can then argue that standard perceptual content internalism and Symmetry conjointly entail that the liberal's content claim is false as follows:

- 1 Standard perceptual content internalism: If a subject,  $x$ , in a possible world,  $w$ , has a perceptual state,  $s$ , that attributes a property,  $P$ , to the object(s) of  $s$  (if any,  $x$  could be hallucinating), and  $y$  is a physical/functional duplicate in a possible world,  $w^*$ , of  $x$  in  $w$ , then  $y$  has a perceptual state,  $s^*$ , that attributes  $P$  to the object(s) of  $s^*$  (if any,  $y$  could be hallucinating).
- 2 Since Chris and Duplicate Chris are physical/functional duplicates of one another, then, by standard perceptual content internalism, Chris's perceptual experience of Pat and Duplicate Chris's perceptual experience of Duplicate Pat must attribute the same properties to the objects of their respective experiences.

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<sup>6</sup> I use a short-arm understanding of functionalism. See fn. 4.



3 By 2, if Chris's perceptual experience correctly attributes the property *being Pat* to Pat, the object of that experience, then Duplicate Chris's experience must illusorily attribute the property *being Pat* to Duplicate Pat, the object of that experience. Alternatively, if Duplicate Chris's perceptual experience correctly attributes the property *being Duplicate Pat* to Duplicate Pat, the object of that experience, then Chris's experience must illusorily attribute the property *being Duplicate Pat* to Pat, the object of that experience.

4 *Symmetry*: Given the symmetry between Chris and Duplicate Chris and their relationships to their respective environments, one ought not to claim that Chris's experience of Pat is veridical if that requires us to claim that Duplicate Chris's experience of Duplicate Pat is illusory, or vice versa, on the grounds that doing so would be unduly arbitrary or ad hoc.

5 By Symmetry and 3—the latter of which is the consequence of standard perceptual content internalism and the physical/functional equivalence of Chris and Duplicate Chris—Chris's perceptual experience of Pat does not represent Pat as being Pat, and Duplicate Chris's perceptual experience of Duplicate Pat does not represent Duplicate Pat as being Duplicate Pat.<sup>7</sup>

6 Since Chris and Pat were arbitrarily chosen, the argument generalizes to show that perception cannot represent individuals as such.

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<sup>7</sup> 3 is the claim that, in order for Chris to have a veridical perceptual experience of Pat as being Pat, Duplicate Chris would necessarily have to have an illusory experience of Duplicate Pat as being Pat, and in order for Duplicate Chris to have a veridical perceptual experience of Duplicate Pat as being Duplicate Pat, Chris would necessarily have to have an illusory experience of Pat as being Duplicate Pat. Symmetry blocks us from claiming that Chris's perceptual experience is veridical if that comes at the expense of the veridicality of Duplicate Chris's perceptual experience, and vice versa. Hence, 5: we cannot claim either that Chris perceives Pat as being Pat, or that Duplicate Chris perceives Duplicate Pat as being Duplicate Pat; given 3, each of those claims would entail a violation of Symmetry. Thanks to an anonymous referee for encouraging me to clarify this step of the argument.

7 By substituting instances of superficially similar but distinct kinds that differ between Earth and Duplicate Earth, the argument generalizes to show that perception cannot represent kinds as such.<sup>8</sup>

8 By 6 and 7, Perception cannot represent individuals and kinds as such *contra* the liberal's content claim.

9 Hence, *Standard Internalism*  $\rightarrow$  *Conservativism*: Standard perceptual content internalism and Symmetry conjointly entail that perception cannot represent kinds or individuals as such.

The above argument is an example of a conditional proof: we can derive the falsity of the liberal's content claim by *assuming* standard perceptual content internalism and Symmetry. So, in the absence of any further arguments for perceptual content internalism and Symmetry, the argument does not suffice to demonstrate that the liberal's content claim is false; rather, it establishes *Standard Internalism*  $\rightarrow$  *Conservativism*. Whether we should perform modus ponens or modus tollens on this entailment is a further issue that lies beyond the scope of the above argument.

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<sup>8</sup> Does the argument overgeneralize? Concerns about overgeneralization effectively anticipate the arguments of §5 of this paper. There I shall argue that we can construct parallel arguments to the above for twin earthable properties besides those of being an instance of a kind or being a particular individual. So, for a twin earthable property P, perceptual content internalism and Symmetry entail that we cannot perceptually represent P as such. Given that perceptual content *externalists* have classically used Twin Earth cases to argue that perceptual contents can *differ* between intrinsic duplicates, this is exactly the result that one should expect *if* one is so convinced of perceptual content internalism from the outset that one takes externalist arguments to show, not that twins can differ in content, but rather that we cannot perceptually represent as such any properties that happen to be twin earthable. One philosopher's modus ponens is another's modus tollens. Notice, however, that the argument of this section and any generalizations thereof cannot establish on their own that there are *any* properties that cannot be perceptually represented as such. One must perform modus ponens on the entailments that those arguments establish. I do not perform modus ponens on such entailments, but some conservatives do. Given the existence of Twin Earth scenarios for paradigmatically perceptible properties like color and shape, and the generalizability of the above argument, conservatives who would perform modus ponens on *Internalism*  $\rightarrow$  *Conservativism* risk proving too much (see §5).

### 3.2 *Phenomenal Internalism* → *Conservativism*

We can also run the above argument in terms of phenomenal perceptual content internalism. For this version of the argument, we do not need Chris and Duplicate Chris to be perfect physical/functional duplicates of one another. We simply need them to be *phenomenal* duplicates of one another. We can then replace standard perceptual content internalism with:

*Phenomenal perceptual content internalism*: If a subject,  $x$ , in a possible world,  $w$ , has a perceptual state,  $s$ , that attributes a property,  $P$ , to the object(s) of  $s$  (if any,  $x$  could be hallucinating), and  $y$  is a phenomenal duplicate in a possible world,  $w^*$ , of  $x$  in  $w$ , then  $y$  has a perceptual state,  $s^*$ , that attributes  $P$  to the object(s) of  $s^*$  (if any,  $y$  could be hallucinating).

We can then modify steps 2-9 accordingly.

As with the original version of the argument, without any further support for phenomenal perceptual content internalism or Symmetry, this latest version of the argument does not suffice to demonstrate that the liberal's content claim is false; rather, it demonstrates:

*Phenomenal Internalism* → *Conservativism*: Phenomenal perceptual content internalism and Symmetry conjointly entail that perception cannot represent kinds or individuals as such.

Taken in combination, the above two arguments suffice to establish:

*Internalism* → *Conservativism*: Perceptual content internalism and Symmetry conjointly entail that perception cannot represent kinds or individuals as such.<sup>9</sup>

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<sup>9</sup> The above arguments have one limitation: we may not be able to construct Twin Earth scenarios for every kind of object. Consider hammers. We can regard hammers as artifacts—a historical kind—in which case they will need to have been manufactured with the intention of creating a hammer. Or we can regard hammers as a functional kind: anything roughly hammer-shaped that is good for hammering counts as a hammer regardless of its origins. My arguments may fail for some functional kinds if the function-defining input and output states can be perceptually represented as such. For instance, we can plausibly perceive whether or not an item has the shape that hammers typically have, and, one might argue, we can also perceive whether or not an object is hammering. If so, then it will

While this entailment may not be particularly surprising on its own, it does carry a number of significant and heretofore neglected consequences for the liberalism/conservativism debate.<sup>10</sup>

Before presenting these consequences, I want to briefly discuss Symmetry.

### 3.3 *Symmetry*

Symmetry is a claim that all parties to the liberalism/conservativism and perceptual contents internalism/externalism debates should be able to agree upon. It is simply the claim that we ought not to draw arbitrary distinctions when determining which perceptual experiences are veridical and which are non-veridical. When applied to Twin Earth scenarios, Symmetry dictates that we should not claim that one of the twin's perceptual experiences is veridical when that would come at the cost of the veridicality of the other twin's experience unless we can provide a principled reason for thinking that the relationships that the twins bear to their respective environments are asymmetrical in some relevant respect.

One example of a relevant asymmetry that has been discussed in the literature is behavioural incompetence (McGinn, 1989; Matthews, 1986; Segal, 1989a), which is best characterized by example. Imagine that our twins on Twin Earth enter into the kinds of neurological and phenomenological states that we enter into whenever we are exposed to bumpy surfaces whenever they are exposed to smooth surfaces, and vice versa. As a result, our twins routinely trip and fall when walking over bumpy ground. Their behavioural incompetence gives us a principled reason to think that their relationship to their environment is not symmetrical with

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be difficult construct scenarios in which Twin Earth is populated with counterfeit hammers. Not all functional kinds resist counterfeiting in this way. We cannot perceive whether or not a wi-fi unit is broadcasting its signal. In any case, the arguments above show that natural kinds (e.g. tigers), historical kinds (e.g. genuine British pounds), and many though perhaps not all functional kinds cannot be represented in perception as such if perceptual content internalism is true.

<sup>10</sup> Some philosophers argue that perception has two "layers" of contents where one is narrow and the other is wide (e.g. Chalmers, 2004; Horgan, Tienson & Graham 2004; Horgan and Tienson, 2002). The above arguments apply only to the narrow content layers.

respect to our own and that they are subject to systematic perceptual illusions involving bumpy and smooth surfaces whereas we are not.

In any well-constructed Twin Earth scenario, principled reasons for thinking that we and our twins bear asymmetrical relationships to our respective environments will be absent. In any event, Symmetry is a claim that should be acceptable to liberals and conservatives as well as perceptual content internalists and externalists, since it simply forbids evaluating a perceptual experience as veridical or non-veridical on arbitrary grounds.

#### *4. Consequences for Liberals*

In order to maintain their view, liberals must perform modus tollens on Internalism → Conservativism and reject either Symmetry or perceptual content internalism. As noted above, Symmetry is extremely plausible: one ought not to draw arbitrary distinctions, and it is difficult to see what principle one could appeal to in order to justify the claim that Chris's perceptual experience is accurate whereas Duplicate Chris's perceptual experience is illusory, or vice versa. Liberals would be in a rather desperate situation if they were forced to reject Symmetry. Fortunately for liberals, perceptual content internalism has been the subject of controversy since the 1980s, and there exists a well-developed literature that defends perceptual content externalism (Block, 1990; Burge 1986a, 1986b, 1988; 2010, Ch. 3; Chalmers, 2012: 324-336; Davies, 1991, 1993, 1997). So, the liberal's best available response to the arguments of §3 is to perform modus tollens on Internalism → Conservativism and reject perceptual content internalism; this, in turn, commits liberals to a minimalist formulation of perceptual content externalism (understood as the rejection of perceptual contents internalism).

Liberals' commitment to perceptual content externalism (minimally understood) carries some important consequences for their view. First, some existing liberal arguments are in

trouble. In *The Significance of Consciousness*, Charles Siewert argues that visual experiences accrue narrow representational contents in virtue of their phenomenal characters (1998; Ch. 7); and he argues that individuals and kinds can feature in these phenomenally-constituted contents, or, as he puts it, in the ‘phenomenal-intentional characters’ of visual experiences (1998: 242-245, 255-259). Unless Siewert is willing to deny Symmetry, then the arguments of §3 show that Siewert’s position is untenable.

Second, liberals claim that perceptual experiences that represent a specific kind or individual as such will differ in their phenomenal characters from those experiences that represent a distinct kind/individual or that do not represent a kind/individual at all. This is the liberal’s phenomenal reflection claim, and liberals owe us an account of how it could be true; given their commitment to perceptual content externalism, this proves to be a non-trivial task.

Philosophical orthodoxy maintains that the phenomenal character of perception supervenes locally with metaphysical necessity upon the physical/functional states of the subject: any two physical/functional duplicates will be phenomenal duplicates as well.<sup>11</sup> If the liberal accepts this orthodox view, then, because she must embrace perceptual content externalism, she will be committed to the metaphysical possibility of phenomenal duplicates who differ in the contents of their perceptual experiences due to environmental differences between them. For instance, she will be committed to the claim that perceptual experiences with phenomenal character *C* can represent their objects as having the property *being Angela Merkel* or *being a tiger* when had by subjects here on Earth, and that perceptual experiences with phenomenal character *C* can represent their objects as having the property *being Twin Angela Merkel* or *being a twin tiger* when had by our twins on Twin Earth. This raises the question: If what it is like for

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<sup>11</sup> Some philosophers deny the locality of the supervenience relation (Byrne, 2009; Byrne and Tye, 2006; Dretske, 1996; Lycan, 2001), others deny its metaphysical necessity (Chalmers, 1996).

us here on Earth to visually represent tigers or Angela Merkel as such is the same as what it is like for our twins on Twin Earth to visually represent twin tigers or Twin Angela Merkel as such, then in what sense are the contents of our perceptual experiences reflected in their phenomenal characters? More generally, how can wide contents be reflected in narrow phenomenal characters?

Rather surprisingly, Susanna Siegel (2006; 2010, Ch. 4) and Tim Bayne (2009, 2016) are the only liberals who have explicitly addressed *wide-content-narrow-character questions* in the context of defending liberalism. Siegel notes that wide perceptual contents can supervene upon narrow phenomenal characters (2006: 501-2; 2010: 114-5). Unfortunately, she fails to specify what sort of supervenience relation liberalism requires. So, her answer is incomplete. To fully answer wide-content-narrow-character questions, we need to specify the relevant supervenience relation, a task that we shall turn to toward the end of this section.

Tim Bayne employs David Chalmers' theory of *Fregean representationalism* to answer wide-content-narrow-character questions (Bayne, 2009: 398; 2016: 118-9).<sup>12</sup> Fregean representationalism claims that perception has *two* layers of content (Chalmers, 2004; see also Thompson, 2009). According to this view, the first layer of content is identical to the phenomenal character of perceptual experience. Hence, it is narrow in the sense of phenomenal perceptual content internalism. Moreover, if one claims that phenomenal consciousness supervenes locally upon the physical/functional states of the subject with metaphysical necessity, then the identity of phenomenal character with Fregean content entails that Fregean content also will be narrow in the sense of standard perceptual content internalism.<sup>13</sup>

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<sup>12</sup> Chalmers (2007) has subsequently revised his former view.

<sup>13</sup> Chalmers claims that the supervenience relation is only nomically necessary (1996).

According to Fregean representationalism, the first layer of content is Fregean in the sense that it consists of modes of presentation, which Chalmers characterizes as *conditions on extension* (2004: 362). While Chalmers doubts that we can precisely specify Fregean perceptual contents in natural language, he offers the following example as an approximation, ‘Take a visual experience as of a green sphere... [O]ne might say that for a property (say, greenness) to be attributed by the experience, it must be the property that has usually caused that sort of colour experience in normal conditions in the past. So the mode of presentation of the property will be something like *the property that usually causes phenomenally green experiences in normal conditions*’ (2004: 363).

The second layer of content consists of the extensions that are determined by Fregean contents in an environment. Since the extension of a Fregean content will depend upon the environmental embedding of the subject, the second layer of content is wide. To return to Chalmers’ example, the narrow, Fregean content of that experience are *the sort of property that usually causes phenomenally green experiences in normal circumstances*. Because the property that satisfies this condition is the property of being green, then *being green* will feature in the second, wide layer of content. Had some other property played that role, however, then that property would have featured in the second, wide layer of perceptual content (Chalmers, 2004).

By appealing to Fregean representationalism, Bayne can answer wide-content-narrow-character questions. As we noted above, the first layer of Fregean contents are narrow in at least the sense of phenomenal perceptual content internalism if not also standard perceptual content internalism. Given the arguments of §3, this means that the first layer of Fregean content cannot represent individuals or kinds as such. However, narrow Fregean content can, when embedded in an environment, determine a layer of wide perceptual content that does pick out individuals



and kinds as such. Consider the sort of visual experience that we normally have around tigers. Call its phenomenal character *T*. If the property that typically causes *T* experiences in normal circumstances is the property of being a tiger, then *being a tiger* can feature in the wide contents of perception. So, phenomenal characters are identical to a layer of narrow contents that, when embedded in an environment, determine a layer of wide contents that can represent individuals and kinds as such. That is how wide contents relate to narrow characters according to Bayne's use of Fregean representationalism.

Bayne's proposal is intriguing, but it comes with a price. It is controversial whether or not there is any coherent notion of narrow content (Block and Stalnaker, 1999; Burge, 2010: Ch. 3; Fodor, 1994; Sawyer, 2007; Yli-Vakkuri & Hawthorne, 2018). Since Fregean representationalism claims that there is a layer of narrow perceptual content in at least the sense of phenomenal perceptual content internalism if not also standard perceptual content internalism, Bayne's appeal to Fregean representationalism necessarily subjects liberalism to this controversy.

I do not want to take a stand on whether or not there is a coherent notion of narrow content. And I do not want to take a stand on whether the contents of perception are Fregean, Russellian, a mix of both, or something else besides (for example, sets of centred possible worlds). Rather, what I want to show is that liberals can answer wide-content-narrow-character questions without appealing to a layer of narrow perceptual content.

Perceptual content externalists have developed their own answers to wide-content-narrow-character questions independently of the liberalism/conservatism debate, and liberals are free to utilize these answers. Martin Davies, for instance, suggests that externalists can secure the supervenience of wide perceptual contents on narrow phenomenal characters *for a*

*subject within a world* (Davies, 1997: §6). On this account, the neurocomputational machinery inside the subject's head serves as an information processing system that requires an environmental embedding for the subject's perceptual states to acquire any determinate semantics. Given the subject's environmental embedding, however, the contents of her neurocomputational states are fixed: she can only enter into perceptual experiences with different contents by entering into different neurocomputational states.<sup>14</sup> As long as these neurocomputational states determine the phenomenal character of perception, then perceptual contents will supervene on the phenomenal character of perception *for a subject given her environmental embedding*.

If liberals embrace Davies' proposal, then they can claim that, for a subject embedded in a particular environment, there is always a phenomenal difference between those of her experiences that do and those that do not represent individuals and kinds as such or that represent one individual or kind as opposed to another. The upshot is that liberals can avoid taking a controversial stand on the viability of narrow content when answering wide-content-narrow-character questions.

So far, I have assumed that liberals will want to stay with philosophical orthodoxy in claiming that phenomenal states supervene locally upon the physical/functional constitution of the subject. Call this view *phenomenal character internalism*. Liberals can, however, reject this view and endorse *phenomenal character externalism*: the view that the phenomenal characters of our experiences are partly determined by our environmental embedding (Byrne, 2009; Byrne and Tye, 2006; Dretske, 1996; Lycan, 2001).

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<sup>14</sup> Block claims that the contents of a type of perceptual state for a subject can change if she is transferred to a new environment for a sufficiently long period of time; he does not say how long (Block, 1990).

We have already seen that the arguments of §3 require liberals to embrace perceptual content externalism. If liberals adopt phenomenal character externalism as well, then their view will claim that both the contents and the characters of our perceptual experiences are wide: perfect physical/functional duplicates could differ in both. This could allow the liberal to defend a particularly strong phenomenal reflection claim: that perceptual contents and characters are identical, or that one grounds the other. It is worth noting, however, that phenomenal character externalism is highly controversial (Block, 1990; 1996; Carruthers, 2000; Chalmers, 2004; 2007; Horgan and Tienson, 2002; Horwich, 1996; Kim, 1996; Kirk, 1996; Rey, 1998). So, liberals can attain a strong phenomenal reflection claim by endorsing phenomenal character externalism, but this will subject their view to a good deal of controversy.

So, liberals must perform *modus tollens* on Internalism → Conservatism and reject perceptual content internalism. This raises a number of questions concerning the liberal's phenomenal reflection claim. Liberals have three ways to answer those questions: they can endorse Fregean representationalism; they can adopt Davies' proposal that wide perceptual contents supervene upon narrow phenomenal characters for a subject within a world; or they can embrace phenomenal character externalism. Davies' proposal will prove the least controversial.

### *5. Consequences for Conservatives*

In this section, I argue that a number of existing conservative arguments that appeal to Twin Earth plausibly overgeneralize and apply not only to the perception of individuals and kinds but also to the perception of colours, shapes, and other paradigmatically perceptible properties.<sup>15</sup>

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<sup>15</sup> Tim Bayne (2009: 397-8) briefly notes that Twin Earth arguments for conservatism may overgeneralize.

The arguments of §3 involved three ingredients: first, our ability to construct Twin Earth scenarios for individuals and kinds; second, an application of Symmetry to that Twin Earth scenario—this was the claim that it would be unduly arbitrary to claim that Twin Earthers are subject to systematic perceptual illusion, while Earthers are perceiving correctly, or vice versa—and, third, standard/phenomenal perceptual content internalism. From these three resources we established:

Internalism→Conservativism: perceptual content internalism and Symmetry jointly entail that we cannot perceive individuals or kinds as such.

Conservatives will be tempted to perform modus ponens on this entailment. This response is not without its risks, however. Once we notice the three ingredients of the arguments of §3—a Twin Earth scenario for a property, an application of Symmetry to that Twin Earth scenario, and perceptual content internalism—what we see is that we can obtain entailments like Internalism→Conservativism for *any* twin earthable property so long as we and our twins bear symmetric relationships to our respective environments. And Twin Earth cases involving paradigmatically perceptible properties are rampant in the literature. By performing modus ponens on Internalism→Conservativism, conservatives risk utilizing an argumentative strategy that shows too much.

Twin Earth cases already exist for:

- colour (Block, 1990)
- shape (Chalmers, 2012: 329-331; Davies 1992; 1997; Hurley, 2008; Thompson, 2010),
- size (Chalmers, 2012: 325-326; Thompson, 2010),
- distance, (Chalmers, 2012: 325-326; Davies, 1992; Thompson, 2010),
- left-right orientation (Chalmers, 2012: 326-328; Thompson, 2010),

- rigidity (Chalmers, 2012: 329-331; Davies, 1997; Hurley, 2008; Thompson, 2010),
- the relative positioning of one's limbs (Davies, 1993), and
- certain sorts of cracks in surfaces and shadows cast upon them (Burge, 1986a).

Consider Ned Block's (1990) Inverted Earth, where objects have the complementary colours of their Earth-based counterparts. Inverted Earthers have lenses that transform the wavelengths of refracted photons such that the images that strike their retinas are identical to the images that strike Earthers' retinas. As a result, Inverted Earthers are phenomenal duplicates of us. Block claims that it is not credible that the minor differences between our lenses and Inverted Earthers' lenses make for a functional difference between us. And, he claims that it would be arbitrary to claim that we perceive the colours of objects in our environment correctly while Inverted Earthers are subject to systematic colour illusions, or vice versa. Since Block thinks that it is absurd to claim that neither we nor Inverted Earthers visually represent colours, he concludes that colour contents must be wide.

I shall not attempt to adjudicate whether or not the above-mentioned Twin Earth cases are cogent, or whether or not we and our twins bear symmetric relationships to our respective environments in those scenarios. What I want to note is this: If the sorts of Twin Earth cases listed above are coherent and symmetric, then conservatives who perform modus ponens on Internalism → Conservatism will be utilizing an argumentative strategy that raises problems not just for the perception of individuals and kinds, but for the perception of colours, shapes, etc. as well. And Block (1990), Chalmers (2012: 224-36), Davies (1997) and Thompson (2010) all explicitly argue that their Twin Earth cases are symmetrical.

The risk of overgeneralization is not theoretical. Berit Brogaard (2013), Adam Pautz (2009), Richard Price (2009) and Jesse Prinz (2013) all claim that perception has contents that

are common between phenomenal duplicates—call it *phenomenally common content*. (They allow that perception may have content that is not shared by phenomenal duplicates in addition to phenomenally common content.) Since phenomenally common content is necessarily shared by all phenomenal duplicates, it is narrow in at least the sense of phenomenal perceptual content internalism. Brogaard, Pautz, Price, and Prinz all hold a standard for phenomenal reflection claims according to which a property must feature in the phenomenally common contents of perception in order for that property to be reflected in the phenomenal character of perceptual experience. These authors then utilize Twin Earth scenarios to show that kinds cannot feature in the phenomenally common contents of perception (they do not discuss individuals), and they conclude that the liberal’s phenomenal reflection claim is false.

Price’s and Prinz’s arguments are similar enough that I shall only present Price’s version. Price frames his argument in response to Susanna Siegel’s (2006) claims that learning to visually recognize a kind of object in an automatic way involves acquiring the ability to visually represent that kind of object in a way that is phenomenally manifest. Price says:

*Suppose...that acquiring a recognitional disposition for tomatoes, a disposition which I shall henceforth call ‘the concept tomato’, causes tomatoes to look phenomenally different...For the sake of argument, let us accept the claim that Oscar’s acquiring the concept tomato and twin-Oscar’s acquiring the concept twin tomato bring about the same kind of visual phenomenal shift for Oscar and twin Oscar. It follows that there is some new F such that their acquisition of their respective concepts causes tomatoes and twin tomatoes phenomenally to look F to Oscar and twin Oscar respectively. If being F is the property of being a tomato, then twin tomatoes will not be the way they phenomenally look to twin Oscar. This is counter-intuitive, since twin Oscar has as much right to say that being F is the property of being a twin tomato, and that tomatoes are not the way they phenomenally look to Oscar. To avoid an asymmetric treatment of the cases, it seems that the only option is to hold that being F is neither the property of being a tomato nor the property of being a twin tomato. Price, 2009: 516-7*

Berit Brogaard offers an argument schema:

*Suppose I am conscious of an external natural kind property  $N_1$  in virtue of having a visual experience with phenomenology  $C$ . It is plausible that there is a natural kind property  $N_2$  which would have given rise to an experience with phenomenology  $C$ , had I been looking at an object that had  $N_2$ ...So it is not the case that if I have an experience  $E$  with phenomenology  $C$ , and I am phenomenally conscious of  $N_1$  in virtue of having  $E$ , then necessarily, if someone has an experience with phenomenology  $C$ , then they are phenomenally conscious of  $N_1$  in virtue of having that experience. Brogaard, 2013: 40*

So, she claims, kinds do not feature in the phenomenally common contents of perception and from this she infers that the liberal's phenomenal reflection claim is false.

Adam Pautz frames his argument in terms of a: 'Reverse Grounding Principle: If the phenomenal content of an experiential property  $E$  involves  $P$ , then having  $E$  for a sufficient period necessarily grounds (in suitable concept-users) the capacity to have beliefs involving  $P$ ' (2009: 505). With this in place he says:

*Suppose Mabel's twin Tabel has always been on a twin earth where real pine trees are replaced by fake pine trees, so that being a pine tree is nowhere instantiated. Tabel gains the capacity to recognize fake pine trees. Suppose that, on viewing a particular fake pine tree, she now has experiential property  $T$ , the very same experiential property as Mabel has on viewing an exactly similar real pine tree after acquiring her recognitional capacity. It seems plausible that Tabel lacks the capacity to have beliefs involving the natural-kind property being a pine tree. So by the reverse grounding principle, being a pine tree does not enter into the phenomenal content of  $T$ , the shared content of Tabel's and Mabel's matching experiences. Pautz, 2009: 506*

While the above arguments differ in detail, we can see that they all involve appeals to Twin Earth; they require that a property feature in the (narrow) phenomenally common contents of perception in order for that property to be reflected in the phenomenal character of our perceptual experiences; and they implicitly and sometimes explicitly involve appeals to Symmetry. (If they didn't at least implicitly appeal to Symmetry, there would be no reason to think that the contents of one twin's experience has any bearing on the contents of the other's experience.) So, Brogaard, Pautz, Price, and Prinz are all performing modus ponens on Phenomenal Internalism→Conservativism to show that kinds cannot feature in the phenomenally

common contents of perception, and therefore that the liberal's phenomenal reflection claim is false.

If Twin Earth cases for colour, shape, etc. are cogent and symmetric, then Brogaard's, Pautz's, Price's, and Prinz's argumentative strategy shows that colours and shapes etc. cannot feature in the phenomenally common contents of perception. And, if these authors all insist that a property must feature in the phenomenally common contents of perception to be reflected in the phenomenal character of perception, then their arguments against the liberal's phenomenal reflection claim would show that corresponding phenomenal reflection claims for colour, shape, etc. are false as well. That is a rather extreme conclusion.

## *6. Conclusions*

Perceptual content internalism of either the standard or phenomenal variety and Symmetry conjointly entail that we cannot perceive individuals or kinds as such. Hence, liberals must perform modus tollens on Internalism → Conservativism. Since Symmetry is extremely plausible, rejecting perceptual content internalism is the liberal's best available strategy. Liberals owe us a substantive account of how their phenomenal reflection claim could be true. Given their commitment to perceptual content externalism, they have three options: they can embrace Fregean representationalism, as Bayne suggests; they can adopt Davies' proposal that wide content can supervene on narrow character for an individual within a world; or they can commit themselves to phenomenal character externalism.

The last of the above options allows for a strong phenomenal reflection claim—that content is identical to, grounds, or is grounded by phenomenal character—but phenomenal character externalism is an extremely controversial claim, and the phenomenal reflection claim it affords may not be worth the price. Davies' proposal will prove the least controversial option,



since it requires commitment neither to narrow content nor phenomenal character externalism, but it does require the liberal to settle for a weaker phenomenal reflection claim: perceptual content supervenes on phenomenal character for a subject within a world. And some may question whether that phenomenal reflection claim is strong enough. Finally, Bayne's proposal affords a phenomenal reflection claim that is approximately as strong as the one that Davies' proposal affords: the wide layer of content that can represent individuals and kinds as such is dependent upon the particular environmental embedding of the perceiving subject. So, wide contents will supervene on narrow phenomenal characters, but only for a subject relative to a given environment (Bayne, 2009). So, Bayne's suggestion requires a controversial commitment to narrow content without having an obvious advantage over Davies' less committal proposal.

Some conservatives perform modus ponens on Internalism → Conservativism to argue that natural kinds cannot feature in the phenomenally common contents of perception. Given the generalizability of the arguments of §3 and the profusion of Twin Earth scenarios involving paradigmatically perceptible properties in the literature, conservatives who employ this argumentative strategy risk showing too much. In response, conservatives can argue either that the Twin Earth cases are not cogent or that they are not symmetric; they can give up performing modus ponens on Internalism → Conservativism and seek other arguments against liberalism; or they can bite the bullet and adopt *hyper-conservativism*, according to which perceptual representations of individuals, kinds, colours, shapes, etc. are not reflected in the phenomenal character of perception.

While the first of the above three options will likely prove the most attractive to conservatives, disputing the cogency or symmetry of every Twin Earth scenario involving paradigmatically perceptible properties like colour and shape seems unlikely to win any new

converts for conservatism. That is a defensive manoeuvre. To convince the undecided, conservatives will likely need to pursue other argumentative strategies. Twin Earth, I submit, is not the place for conservatives to make their stand.

The liberalism/conservatism debate is itself a part of a larger debate over the admissible contents of perceptual experience. Low-level theorists claim that only “low-level properties”—colour, shape, size, distance, texture, temperature, pressure, pitch, tone, timbre and volume—can be represented by and phenomenally manifest in perceptual experience. High-level theorists claim that perception can represent in a phenomenally manifest way both high-level and low-level properties. The properties of being an instance of a kind or being a specific individual are examples of high-level properties. Other examples include:

- causal properties, relations, processes, and events, such as being sharp or pushing (for example, Beebee, 2010; Siegel, 2009),
- affordances, dispositions and latent potencies, such as being edible (Nanay, 2011a), dangerous (Burge, 2010: 324-5), or capable of movement (Strawson, 1974) (see also Nanay, 2011b),
- expressions of the mental states of others, such as doubt (Siegel, 2006; 2010, Ch. 5), or emotional expressions (e.g. Block, 2014; Butterfill, 2015),
- the semantic properties of written or spoken languages (Siegel, 2006; 2010, Ch. 4), and
- the gender of speakers’ voices (Di Bona, 2016).

While individual commitments tend to vary, philosophers who are optimistic about the perception of individuals and kinds also tend to be optimistic about the perception of other high-level properties (for instance, Peacocke, 1983; Siegel, 2010; Strawson, 1974). And, while there is logical space for philosophers to be pessimistic about the perception of individuals and kinds

but optimistic about the perception of other high-level properties (such as Burge, 2010), most conservatives tend to be low-level theorists (for instance, Jackendoff, 1987; Prinz, 2013). The liberalism/conservatism debate is itself a kind of microcosm of the broader high-level/low-level debate. And this raises the possibility that the results of this paper may apply to the wider high-level/low-level debate and not just the more narrowly circumscribed liberalism/conservatism debate.

Insofar as it is plausible that we can construct Twin Earth scenarios for high-level properties in general, we should be able to establish entailments like Internalism→Conservatism for high-level properties by generalizing the arguments of §3. This would show that high-level theorists in general and not just liberals in particular must reject perceptual content internalism and provide substantive accounts of phenomenal reflection along the lines discussed in §4. In turn, low-level theorists may be tempted to use Twin Earth cases involving high-level properties and perceptual content internalism to argue against low-level theorists. However, if Twin Earth scenarios involving paradigmatically perceptible properties are cogent and symmetric, then low-level theorists who give in to temptation risk showing too much. The lessons of the liberalism/conservatism debate may well prove to be lessons for all parties to the broader high-level/low-level debate. Philosophers of perception would do well to bear in mind the costs of Twin Earth when developing and defending their views.<sup>16</sup>

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