

uncorrected proof

nicht korrigierte Fahne

Grazer Philosophische Studien
88 (2013), 73–100.

PHENOMENAL CONCEPTS AS MENTAL FILES

Roberto Horácio DE SÁ PEREIRA
Universidade Federal de Rio de Janeiro

Summary

This paper is a defense of the so-called phenomenal-concept strategy, based on a new view of phenomenal concepts as special *de re* modes of presentation of the phenomenal character of experience. Phenomenal concepts can be explained in physical terms as mental particulars (as phenomenal files) created in the individual's mind to pick out the phenomenal character of experience by representing certain physical properties as those represented by the experiences themselves (metarepresentation). They are individuated by two fundamental relations: the perceptual (acquaintance) relation the creature bears to the physical properties represented by its own experience and the relation the creature bears to itself (self-acquaintance) as the subject undergoing those experiences. Mary's newly acquired phenomenal file presents the phenomenal character of her new experience of red by means of the new relation she bears to herself as the creature standing in the experiential relation to the color red.

To the memory of Fred Dretske.

Introduction

At the end of Jackson's thought experiment, Mary finally leaves the black-and-white room and sees a ripe tomato for the first time, without the mediation of black-and-white monitors. Mary is an ingenious neuroscientist of the thirtieth century who has exhaustive knowledge about color and color vision, knowing all the physical facts. It seems undeniable, however, that she acquires a new bit of knowledge at the moment she leaves her confinement and sees the ripe tomato for the first time, namely, the knowledge of what it is like to see red. Now, the assumption that Mary

already has a complete set of all physical facts forces the physicalist to confront a problem. If Mary already knows all the physical facts about color and color vision, and, further, if she learns a new fact, the anti-physicalist conclusion is that physical facts do not exhaust all the facts. There must be at least one non-physical fact.

There are two classical physicalist reactions to the knowledge argument. First, rejecting the key assumption that after her release Mary learns something new, the physicalist might impugn directly the neo-dualist conclusion of the argument. A second response might be to admit that Mary makes a genuine discovery after she leaves her confinement under the assumption that she acquires new special phenomenal concepts of some property or fact she already knew under a physical concept in her confinement. Following Stoljar (2005), we can call this the phenomenal concept strategy (PCS). Proponents of this strategy argue that phenomenal concepts—our concepts of conscious states—have a certain, special nature. They are able to account for Mary's epistemic predicament, showing at the same time that she makes an epistemic advance and that physicalism is true. Thus, proponents of the PCS make two related claims. First, they claim that phenomenal concepts are not just any ordinary concepts used introspectively to pick out the phenomenal character of one's experience: they are special concepts in the relevant sense that one can only acquire when one undergoes some experience and attends to the phenomenal character of that very experience. Therefore, phenomenal concepts are not a priori entailed by any physical concepts. Second, they argue that the possession of phenomenal concepts with this special nature can itself be explained in physical terms.

According to the PCS, when Mary leaves her confinement and attends to the phenomenal character of her new experience of something red, she makes a genuine epistemic advance. However, her discovery is similar to the discovery of the ancient Babylonians that Phosphorus is Hesperus or to the discovery that Cicero is Tully. What she learns is that the phenomenal character of the experience of red that she now thinks under a new phenomenal concept is the same physical property she already knew in her black-and-white room under an old physical concept. Her phenomenal concept is special in the sense that she must undergo the experience of red and attend to the phenomenal character of that experience to acquire it. In this sense, her new phenomenal concept is not entailed a priori by any physical concept, but her newly acquired phenomenal concepts must also be explained in physical terms.

Recently, the PCS has come under considerable pressure. Tye (2009) and Ball (2009) argue that there are no phenomenal concepts with the special nature required by the PCS. This paper is a defense of the PCS, based on the new view of phenomenal concepts as special *de re* modes of presentation of the phenomenal character of experience. They can be explained in physical terms as mental particulars (phenomenal files) created in an individual's mind to pick out the phenomenal character of experience by representing certain physical properties as those represented by the experiences themselves (metarepresentation). They are individuated by two fundamental relations: the perceptual relation the individual bears to physical properties represented by her own perceptual experience and the new relation the individual bears to herself as the subject undergoing those experiences. In this sense, these perceptual experiences are not the ordinary perceptual files re-used in introspection.

They also have a special nature that accounts for Mary's epistemic progress, however. For one thing, even though phenomenal files are created as repositories of information concerning those properties they are about (roughly in terms of mental images of stereotypes of those properties), phenomenal concepts should not be confused with any kind of information hosted in those files. What plays the key role of *de re* modes of presentation are not the kind of information hosted in the phenomenal file, but rather the file itself as a mental particular. Thus, Mary could not possess the phenomenal file of the experience of red before her release from her black-and-white room. Moreover, it is the acquisition of that mental particular that accounts for her predicament rather than any information hosted in that file: after her release, on the basis of her newly acquired phenomenal concept, she is able to entertain a *de re* thought about the phenomenal character of the experience of red that she could not possibly entertain before and hence to know the phenomenal character of her experience by acquaintance.

To develop this new account of phenomenal concepts, the paper progresses as follows. To begin with, we introduce a simplified picture of a very popular version of physicalism concerning the phenomenal character of experience, namely, strong representationalism, according to which the phenomenal character of experience is the complex of properties represented by experience. Many appeal to the so-called transparency of experience as a support for strong representationalism. Even while we recognize that strong representationalism is far from the consensus view, to undertake an argument in support of it would lead us too far afield.

uncorrected proof

nicht korrigierte Fahne

In this paper, we take strong representationalism for granted (“antecedent representationalism”) as the background for developing a new account of phenomenal concepts.

In the next section, we situate the status of the PCS within recent philosophical debates. In this regard, we briefly present the Tye/Ball claim that there are no phenomenal concepts in the sense required by the PCS. In this section, we will try to persuade the reader that all the various objections to the PCS have the same origin: if physicalism is true and Mary possesses exhaustive knowledge of all the physical facts about color and color vision, she could not possibly acquire a new phenomenal concept on the basis of her new experience because there is no information about the phenomenal character of her experience that she could obtain that she did not possess before.

The next section is devoted to exploring Tye’s new proposal that Mary’s epistemic progress must be understood as a form of knowledge by acquaintance, or objectual knowledge. In this section, we argue that such knowledge by acquaintance is inseparable from the acquisition of new *de re* modes of presentation of the color red and of phenomenal redness. We will try to convince the reader that Mary can only become acquainted with the color red to the extent that she represents that color *de re* by means of her new experiential relation to that color and to the extent that she metarepresents that color as the color represented by her new experience *de re* by means of the new relation she bears to herself as the subject of the experience in question.

In the next step, we undertake a brief exploration of mental files as the basic framework within which we make sense of the very idea of *de re* or nondescriptive modes of presentation. Phenomenal files are mental particulars created in someone’s mind to refer to objects by storing information about their properties in terms of predicates. They are originally thought as the mental analogs of singular terms. It is suggested here that we should think of the concepts of properties as mental files too. They are the mental analogs of predicates. They refer to properties by storing information in terms of the mental images of their stereotypes. The idea is not entirely new. In his original quotational-indexical account (2002), Papineau has already suggested the idea of phenomenal concepts as repositories of copies of token-experiences, and in his further account (2007), he reiterates that phenomenal concepts are stored sensory templates.

However, our proposal differs from both of Papineau’s accounts in several crucial respects. We reject his assumption that phenomenal files

nicht korrigierte Fahne

are individuated by their cognitive function of accumulating information concerning the entity the file is about, that is, by the sort of information the subject is disposed to attach to the file and that is projectable across encounters with the object. On the view we defend here, phenomenal files are individuated on the basis of the relations that originate it. In this regard, what plays the key role in the mode of presentation is not the sort of information housed in the file but rather the file itself as a mental particular originated by a relation the subject bears to the object. Therefore, we also reject Papineau's view that phenomenal concepts are simply special cases of perceptual concepts. The view we try to make plausible here is that Mary's new perceptual file concerning the color red is a newly created mental particular that presents that color *de re* on the basis of her new experiential relation of contact with the color of a ripe tomato. In contrast, her new phenomenal file is a newly created mental particular that presents that same color *de re* but now by means of the new relation she bears to herself as the subject undergoing the experience of a ripe tomato. Thus, if phenomenal consciousness is pre-conceptual, phenomenal *knowledge* requires both phenomenal concepts and self-consciousness.

The last step is devoted to rebut charges against the PCS and the very idea of phenomenal concepts. Here we will try to persuade the reader that the idea that Mary makes a discovery in the "robust sense" begs the question in relation to the PCS. Using Tye's own new formulation (2012) Mary's discovery cannot be a "possibility-eliminating discovery" if physicalism is true. Rather, it must take the form of the discovery that Hesperus is Phosphorus or that Cicero is Tully. The crucial point, however, is that neither Mary's new phenomenal concept nor her discovery hinges on the acquisition of new information concerning the color red and the vision of red, which is impossible under the physicalist assumption that she knows all that there is to know about color and color vision. She comes to know the color red and hence (under the representationalist assumption) the phenomenal character of the experience of red by acquaintance (Tye's intuition), by representing the color red by means of her new perceptual relation to the color of a ripe tomato and by metarepresenting the same color as the color represented by her experience of a ripe tomato by means of the new relation she bears to herself as the subject undergoing the experience of a ripe tomato.

uncorrected proof

nicht korrigierte Fahne

Antecedent Representationalism

My methodological starting point is a simplified picture of what I, inspired by Perry (2001), would like to call antecedent (strong) representationalism. This means that strong representationalism is presupposed, and on its basis I develop my account of phenomenal concepts, which provides me with an explanation for all relevant aspects of the knowledge argument. Under the label “strong representationalism,” I understand the widespread and very popular view held nowadays that identifies the phenomenal character of experience with the properties that objects are represented as having (Dretske 1995, 65). According to this most basic form of representationalism, also called property representationalism, experiences that are alike in the properties they represent are necessarily alike in their phenomenal character.

Strong representationalism is based on a naturalistic theory of the representational content of experience. The most popular view on this matter is Dretske’s information-based account (1995). To represent an object as having some property, a sensory state must fulfill two main conditions. First, occurrences of the sensory state refer to an object if, under normal conditions, they are tokened only if some property of the object is tokened and because it is tokened. In this sense, tokens of experience that statistically co-vary with tokens of the property of the object under normal conditions supply the information that the property is instantiated by the object.

Because representation entails the possibility of misrepresentation, however, a further condition must be fulfilled. Besides co-varying statistically with tokens of the property of the object in question, tokens of the mental state must have acquired the function of indicating the property with which they co-vary statistically. The indicator function can be acquired in ontogeny or in phylogeny. In the first case, the indicator function is acquired by learning and the mental state in question represented conceptually. The acquisition by natural selection provides a solution to what Dretske calls the “design problem” (1988). Mary belongs to the species *Homo sapiens*, which evolved on the African savannah, where some tomatoes are edible while others are not. Under the assumption that that the edible ones are red and the nonedible ones are green, it is reasonable to assume that her mental states that statistically co-vary with the color red are “recruited” by natural selection with the function of indicating the color red, while her states that statistically co-vary with the color green are

also “recruited” by natural selection with the function of indicating the color green.

When, under normal conditions, mental states are tokened when properties of the objects they have the function of indicating are tokened and because they are tokened, the mental representations are true or veridical (in the case of nonconceptual representations). In contrast, when, under abnormal conditions, mental states are tokened because other properties they do not have the function of indicating are tokened, they misrepresent them. Thus, the same token/type distinction of the linguistic realm applies here in the mental realm. There are successful and unsuccessful tokens (dreams, hallucinations, imagination) of the same experience qua mental type. Even though Mary’s experience is of a ripe apple, she can have exactly the same experience type without it being a visual perception of a ripe tomato or, indeed, an experience of any object at all. Understood as mental types, experiences are *de re* modes of presentation (Dretske 1995, 24). What determines reference is not *how* the object is represented by experience, but rather the causal and contextual relation between the mental state and the object the state pictures (1995, 24f.).

The main tenet of antecedent representationalism, however, is the so-called strong transparency thesis, according to which the only features of which we are aware and to which we can attend are the physical properties of external objects represented by experience. When Mary attends to the phenomenal character of her experience of ripe tomatoes, there is nowhere to look other than at the red color represented by her own experience. It is worth noticing that what is at play in the strong transparency thesis is what Dretske (1999) calls property-awareness (rather than fact-awareness). The idea is not that Mary cannot be aware of the fact that she is experiencing the color red when she attends to the phenomenal character of her experience of red. Rather, Mary could only be *aware of the property* of her experience by being aware of the property that that experience represents as instantiated by some object. In this regard, representationalists reject *qualia realism*, that is, the usual assumption that the qualities of experience—qualia—are intrinsic properties of experience itself.

Now, to become aware of the fact that she experiences the color red, after her release Mary needs more than the experience of something red. Even though Mary’s sensory states can represent the color nonconceptually, she can only recognize the fact that she experiences red by conceptualizing the property her experience represents as being red and, hence, by conceptualizing her own experience as a representation of the color red as a physical

property of external objects. This is Dretske's displaced perception model of introspection, a reliable non-inferential process that takes awareness of physical properties represented by experience as input (property-awareness) and yields as output the awareness that the individual is having an experience of a given phenomenal character (fact-awareness). Even though the process is automatic, at least two concepts are involved. First, the individual needs a concept to characterize the property that her experience is representing; otherwise, she would be blind to the phenomenal character of her own experience. As a consequence, however, she needs to master the very concept of representation: she must conceive of her own experience as a representation of some property instantiated by an object. Thus, introspective knowledge is a fact-awareness that represents (conceptually) a nonconceptual representation as a representation. That is what Dretske, following common usage, calls metarepresentation (1995, 43).

Tye rejects Dretske's original claim that knowledge of the phenomenal character of an experience is a fact-awareness (2009, 118f.). On his current view, it does not follow from the strong transparency thesis. In case of perceptual experience, transparency tells us that the only qualities we are introspectively aware of are the qualities of external things, if they are qualities of anything at all. According to strong representationalism, the phenomenal character of experience is nothing but the complex of qualities the experience represents. Thus, by being aware of the complex of qualities the experience represents, the individual comes to know the phenomenal character of her experience. That knowledge, however, is a thing-knowledge or a knowledge by acquaintance, rather than a propositional knowledge or knowledge of a fact (120).

I disagree. To be sure, under the assumption of representationalism, knowledge by acquaintance of the qualities of external objects represented by experience is a necessary condition for knowledge of the phenomenal character of experience. Still, it is not a sufficient condition. Acquaintance with the relevant qualities represented by experience is not knowledge of the phenomenal character of experience. Let us imagine Mary as an infant, lacking any concepts whatsoever. Without any concepts, she may experience the color red and so represent it nonconceptually. Moreover, in the light of strong representationalism, by being aware of the color red represented nonconceptually by her experience of red, she is *ipso facto* aware of the phenomenal character of her experience red. Her awareness of the color red, represented by her own experience of red (property-awareness), is still not awareness of undergoing an experience of red, however; it is

not knowledge of the phenomenal character of the experience of red. That would be fact-awareness rather than property-awareness. Indeed, the idea that the knowledge of the phenomenal character of an experience is a property- or an object-awareness does not fit well with Tye's new proposal that knowledge of what it is like to experience red is propositional and that what Mary discovers "involves a mixture of factual and objectual knowledge" (132).

Be that as it may, antecedent representationalism provides two quite different reactions to the challenge represented by the knowledge argument. The first is the one presented paradigmatically by Dretske. On his view, Mary learns nothing new when she stares at a ripe tomato for the first time. If we want to know what it is like for Mary to experience something red, we do not need to be in Mary's shoes, in the same way that for us to know what it is like to experience magnetic fields we do not need to be a dogfish. All we need is to possess the concepts required to metarepresent the relevant qualities that their respective experiences represent (Dretske 1995, 81–93).

In this paper, however, I want to explore and defend a second response to the challenge represented by the knowledge argument. After her release, when she stares a ripe tomato for the first time, Mary learns something: on the basis of her new experience of something red, she acquires a new phenomenal concept of the phenomenal character of the experience red. Phenomenal concepts are typically held to be concepts that can only be formed by introspection about the phenomenal character of experiences. They possess two distinguishing features. First, they must account for the key intuition that there is a so-called explanatory gap between physical processes, conceived under physical concepts, and conscious states, conceived under phenomenal concepts. In other words, they must account for the key intuition that Mary makes an epistemic advance when she sees a ripe tomato for the first time. Second, they must be accounted for in physical terms, in our case on a representationalist basis.

According to a representationalist framework, a phenomenal concept must meet the following criteria: the concept C is phenomenal only if

1. There is some experience type e , and some property p , such that experience tokens fall under e in virtue of the fact that e represents p (Dretske's condition: type e co-varies statistically with p under normal conditions and e has the function of indicating p).

uncorrected proof

nicht korrigierte Fahne

2. C refers directly to p (Tye's condition: under normal circumstances, C is only betokened in an act of introspective thought about the experience type e only in cases when p is tokened and because p is tokened) (Tye 2009, 52).

PCS under attack

On occasion, the knowledge argument is reconstructed so that it takes the form of a priori reasoning (see Chalmers 2010). However, the simplest way of regimenting the argument so that it fits nicely with Jackson's original tale and makes it easier to understand the recent criticism against the PCS is the one suggested by Nida-Rümelin (2002):

- PREMISE P1: Mary has complete physical knowledge about human color vision before her release.
- CONSEQUENCE C1: Therefore, Mary knows all the physical facts about human color vision before her release.
- PREMISE P2: There is some (kind of) knowledge concerning facts about human color vision that Mary could not have before her release.
- CONSEQUENCE C2: Therefore (from P2), there are some facts about human color vision that Mary could not know before her release.
- CONSEQUENCE C3: Therefore (from C1 and C2), there are non-physical facts about human color vision.

Physicalists must deny C3. According to the PCS, by attending to her new experience of red, Mary acquires a *new* phenomenal concept or a new mode of presentation of the phenomenal character of the experience red. Tye (2009) and Ball (2009) reject this assumption on several grounds. To start with, under the assumption that Mary has exhaustive knowledge about color and about color vision, Mary could not acquire *new* information about the phenomenal character of the experience of red—information that she did not already possess in her black-and-white room—if physicalism is true. In other words, if Mary really possesses exhaustive knowledge of all physical facts (past, present, and future), then the only way she can associate *new* properties with the experience of red is if those properties are non-physical (Tye 2009, 128).

Their second objection is based on the assumption that the general concepts we apply via introspection to pick out the phenomenal character

nicht korrigierte Fahne

of our experiences are deferential, that is, can be possessed even if they are only partially understood. To be sure, by contemplating a ripe tomato for the first time, Mary enlarges her expertise with regard to the color red. She acquires a new ability to recognize the color through perception. Still, if the color concept RED is deferential, and can be possessed even when only partially understood, Mary does not need to undergo the experience of red and acquire the ability to recognize red things to possess that concept any more than Putnam has to undergo the experiences of beeches and acquire the ability to recognize beeches by sight to possess the concept BEECH. Indeed, imprisoned Mary can cogently agree and disagree with numerous beliefs about the phenomenal character of the experience red with someone who has undergone the relevant experience of red (66), and the possibility of such disagreement requires a shared concept.

Ball makes explicit the same objection concepts as a *reductio*:

1. Mary's original concept RED lacks some feature that Mary's phenomenal concept RED_p possesses: for example, Mary's concept was not caused by experiences of red, is not linked to images of red, and does not enable Mary to recognize red things and to discriminate red from non-red objects.
2. Therefore, there is no significant type of which RED and RED_p are both tokens.

Given the conclusion of the last section, it is clear that this argument is invalid. Consider an analogous argument:

1. Putnam's concept BEECH lacks some features that my concept BEECH_p possesses: for example, Putnam's concept was not caused by experiences of beeches, is not linked to images of beeches, and does enable Putnam to recognize beeches.
2. Therefore, there is no significant concept type of which Putnam's concept BEECH and BEECH_p are both tokens. (Ball 2009, 16)

What about the demonstrative concept that Mary deploys when she attends to the phenomenal character of her experience of a ripe tomato and points to the tomato? Could not phenomenal concepts be demonstrative concepts utilizing physical sortals? According to Tye (2003, 2009) and to Ball (2009), Mary could also possess such a demonstrative concept in her confinement. Under the representationalist assumption that the phenomenal character of the experience of red is one and the same as the color red represented by that experience, Mary could possess such a demonstrative concept, based on the black-and-white screen of her computer and on her previous knowledge that certain things are red. Mary could think of the

phenomenal character of the experience of red, pointing to a ripe tomato she sees through the screen of her computer. That means, however, not only that she already possessed the demonstrative concept, but also that such a concept is not phenomenal in the relevant sense of being a concept whose acquisition hinges crucially on the subject having the relevant experience.

Moreover, even assuming that Mary could acquire a new phenomenal concept after her release—a new phenomenal way of thinking about the same phenomenal redness she already knew—the PCS would still fail to the extent that it fails to take the full measure of Mary’s discovery. If, however, the ingenious Marianna has an exhaustive knowledge of color and color vision, and, moreover, if physicalism is true, there is no way that she could make any discovery in the “robust sense” required by the knowledge argument. The only novelty is that she learns to think of the same phenomenal character of the experience of red she knew before, but under a new guise. Mary’s new knowledge is thus rather like the discovery that Hesperus is Phosphorus.

De re modes of presentation

If we reject Dretske’s reaction to the knowledge argument by recognizing that Mary after all learns something, but we reject the PCS, the only remaining alternative for a representationalist is to assume that Mary’s discovery takes the form of knowledge by acquaintance of the complex of properties represented by experience (2009; 2012). When Mary is released from her confinement in the black-and white room and she stares at the ripe tomato, she gets acquainted with the color red represented by her new visual experience. Under the representationalist assumption that the phenomenal character of experience is nothing but the complex of properties represented by experience, by being acquainted with the color red Mary comes to learn *a new thing* (objectual knowledge or knowledge by acquaintance). On the basis of this thing-knowledge, she comes to know what it is like to experience red. Tye thus rejects premise P2 of the knowledge argument in Nida-Rümelin’s reconstruction.

The natural suggestion is to understand such objectual knowledge of the phenomenal character of the experience of red in terms of Russell’s notion of knowledge by acquaintance (see Tye 2009, 96). “Knowledge by acquaintance” is the technical term forged by Russell to describe the

sui generis nonconceptual epistemic relation to an object that provides a direct awareness of it (Russell 1918, 152). The crucial point for him is that, unlike propositional attitudes, such a relation does not involve any conceptualization of the entities to which it gives the subject unmediated access. Knowledge by acquaintance is a knowledge of things that is simpler than and logically independent of the knowledge of truths about those things.

Russell's view of knowledge by acquaintance in terms of being "directly aware" naturally suggests that he had some kind of perceptual relation in mind, and some philosophers have taken acquaintance that way. According to Tye, for example, acquaintance requires direct contact with the things being experienced. One can only be acquainted with things if one's conscious state is so situated that it enables one to wonder, "What is that?" (2009, 100). Now, even though the perceptual relation is the paradigmatic case, Russell's meaning is best interpreted, technically, as a perception-like relation rather than a perception in the strict sense, because, according to him, among other things we know by acquaintance are our own selves (which we know by proprioception), universals, and the data of introspection.

As a perception-like relation of contact, knowledge by acquaintance is a non-negotiable principle for Russell. There are simple reasons that militate in favor of it. Knowledge by acquaintance is epistemologically and metaphysically primitive. It is metaphysically primitive in the sense that it does not admit of any sort of analysis into simpler elements, and it is epistemologically primitive in the sense that it provides the ultimate foundation of our knowledge of the external world. Without acquaintance, the subject could never acquire genuine "knowledge of the external world."

What raises serious doubts about Russell's technical notion is the further claim that knowledge by acquaintance dispenses with modes of presentation. Such a claim is supported by two arguments. First, like Frege, Russell recognizes only descriptive modes of presentation. For him, an object can only be presented to thought as the item that satisfies one or a set of identifying properties. A rational agent can only simultaneously think of an object as having and not having a property to the extent that he or she knows it under different descriptions. Second, Russell restricts acquaintance to objects that raise no problems of cognitive significance, viz., co-reference and no-reference problems. For this reason, the list of such objects is rather short: sense data, universals, the data of introspec-

tion, and selves. In Russell's view, the subject is acquainted with sense data rather than with material objects.

What I want to suggest is that the claim of a direct reference without a mode of presentation is not an option for those who endorse the transparency thesis. If Mary learns the phenomenal character of her own experience of a red patch by acquaintance, and if knowledge of the color red represented by her experience does raise problems of cognitive significance, then we must embrace qualia realism, that is, the assumption that the qualities of experiences—qualia—are intrinsic properties of experience (see, 2012a, 2012b), rather than qualities of objects represented by experience.

The case of Marianna (Nida-Rümelin 1996) illustrates the point well. Like Mary, Marianna is kept captive in a black-and-white room. Unlike Mary, however, when Marianna leaves the room, she is led into a Technicolor vestibule in which there are various patches of different colors on the walls. At this point, she will have experiences she has not had before of red, yellow, blue, and so forth. Nonetheless, because there is no hint for Marianna as to which is which, when she stares at a red patch on the wall of the room for the first time, she may reasonably wonder whether the color she stares at is red. Such a thought can only make sense as a rational attitude if Marianna has two different modes of presentation of the color red: one based on her reading in Jackson's room, the other based on her new experience of a red patch.

Now, as both the transparency thesis and the assumption that Marianna knows the phenomenal character of the experience of red by acquaintance (when she sees something red for the first time) are non-negotiable principles here, the only way out is to give up all three of Russell's assumptions about knowledge by acquaintance. The first is the claim that one can only know by acquaintance objects that raise no problems of cognitive significance. The second is the claim that there are only descriptive modes of presentation. The third is the claim that when we know objects and properties by acquaintance, we do it without any modes of presentation.

Russell's traditional opposition between knowledge by description and knowledge by acquaintance comes down to the opposition between knowledge based on descriptive modes of presentation and knowledge based on nondescriptive modes of presentation. The question is how nondescriptive modes of presentation should be understood. In a non-technical sense, modes of presentation are simply ways in which objects are given to the subject (Recanati 2010, 148). According to Bach's (1987) famous charac-

terization, descriptive modes of presentation are inherently satisfactorial in the relevant sense that the individual's awareness of the referent is based on her knowledge of some fact, that is, on her propositional knowledge that the referent uniquely satisfies some set of identifying properties. For example, in her black-and-white room, Mary has descriptive modes of presentation of the phenomenal character of the experience red. They consist of a set of identifying physical properties that she associates a priori with that phenomenal character. The reference of these descriptive modes of presentation to the phenomenal character of the experience of red is determined satisfactorially, that is, they refer to that phenomenal character of experience by means of Mary's knowledge that that phenomenal character uniquely satisfies some set of identifying physical properties in question associated with the referent.

By contrast, nondescriptive modes of presentation are inherently relational (Bach 1987; Recanati 1997, 2010, 2012), in the sense that the awareness of the referent is determined by direct (acquaintance) or indirect relations that the subject has with the referent. The subject refers to the object by virtue of the blind fact that she is somehow related to the object rather than in virtue of her knowledge of that fact. To be sure, by becoming acquainted with the color red represented by her new experience of a ripe tomato, Mary does come to know *a new thing* (in fact, a new property). Still, what we want to suggest is that she only comes to know this new thing by the presenting of the color red *in a new way*, namely, by means of the new perceptual (acquaintance) relation she bears to the color red represented by her new experience of a ripe tomato. Likewise, she also comes to know this new thing, the phenomenal character of her experience, *in a new way*, namely, by means of the new relation she bears to herself as a subject of that experience. Thus, her discovery, her new thing-knowledge, is inseparable from her acquisition of a new *de re* perceptual concept and, above all, of a new *de re* phenomenal concept. Tye's new proposal thus brings us back to the PCS.

Mental files framework

Like many others, we find it useful when thinking of nondescriptive modes of presentation to regard them as mental files. The basic idea of mental files is not new in philosophy; it was introduced by several authors (see, inter alia, Perry 2001, 2012; Bach 1987; Forbes 1990; Jeshion 2010; Recanati

2010, 2012). The most influential philosophical elaborations of the idea of mental files are certainly due to Perry and, after him, to Recanati. Before presenting my own view of phenomenal concepts as mental files, I would like dwell on the metaphor of mental files.

Mental files are mental particulars created in someone's mind with the function of representing objects by storing information about the object's properties. They are meant to be singular concepts or concepts of objects, but their distinguishing feature is their *de re* character: even though they are opened in the individual's mind to store information about an object's properties, they do not present the object as the item that satisfies those identifying properties but as the object that stands in some relation to the individual herself and, a fortiori, in relation to the file itself. For instance, when a predator sees a prey, a perceptual file opens in its mind to represent the prey by storing information about the prey's salient features. Even though the file hosts information about the prey in the form of the prey's salient features, it does not present the prey as the object that possesses those salient features, but rather as the object that stands in a particular perceptual relation to the predator and, a fortiori, as the object that stands in a demonstrative relation to the perceptual file itself.

The simplest files are the perceptual ones. Even though they are retained in the longer-term memory, they are essentially short-term files whose distinguishing feature is that they are currently attached to the perception of the object they are about. They last only as long as the perceptual relations last. When those relations cease, either the perceptual file disappears or it gets linked to other detached, stable files about the same entity. The information temporarily hosted in the perceptual file about the object's properties is either lost or transferred into other permanent files. Thus, if the predator loses track of the prey, either the information concerning its salient properties is lost or it is transferred to a non-perceptual permanent file that it has on that kind of prey.

Not every perceptual file is conceptual. I believe that Evans's Generality Constraint (Evans 1982, 104) lays down at least necessary conditions for concept possession. A simple way of stating the Generality Constraint for singular concepts is as follows. A person who can be credited with the individual concept *a* should be able to entertain any thoughts in which *a* is freely recombined with any predicative concept *F*, *G*, and *H* in its possession: *a* is *F*, *a* is *G*, *a* is *H* (1982, 104). In the mental file framework, the file is the mental analog of a singular term that stands for the object of which something is predicated. Translated into mental file talk, the Gen-

erality Constraint says, then, that a person can only be credited with a mental file (singular concept) on some object under the condition that the file is hospitable to any predicative concept in the person's possession (see Recanati 2012, 65). The key assumption here is the requirement that the file should be hospitable to information concerning the object gained by means of relations other than perceptual ones.

Recanati's characterization is not entirely satisfactory as it stands, however. The crucial point is not the source of information (whether it comes about by exploitation of perceptual relations or from other sources), but how the individual manipulates the information hosted in the file. Let's suppose the individual possesses a perceptual file on a particular tomato in her visual field, storing information about its bulgy shape and about its red color. The content of the individual's visual experience represents the tomato both as red and as bulgy. Intuitively, that perceptual file is not a singular concept if, other things being equal, the individual is unable to *judge* that that tomato is red and bulgy on the basis of her perceptual experience, that is, if she is incapable of *predicating* the information contained in the mental file (regardless of the source of the information hosted in the file) of the object the file stands for. Moreover, because concepts are *reasons*, the individual could not be credited with a singular concept of the tomato if she is not in a position to appreciate that the same thing that is bulgy is also red from her representation of the tomato as bulgy and her representation of the tomato as red. In light of the Generality Constraint, conceptual contents are propositional: a file on an object is a singular concept if the creature is able to *predicate* any concepts in its possession of the object represented by the file and is sensitive to the file *as a reason* in inferences from contents concerning the object.

Perceptual files

While mental files are usually thought of as the mental analogs of singular terms in a natural language, we can also think of perceptual files as mental analogs of perceptual predicates of experiences in a natural language. In this sense, they are not concepts of objects but rather concepts of universal properties. In the mental file framework, while ordinary mental files stand for objects of which something is predicated, perceptual files stand for properties instantiated by objects. Thus, while ordinary mental files refer to objects by storing information about their properties in terms of predicates,

the question we now face is what kind of information perceptual files can host when they refer to properties as universal or as instantiated (tropes).

Our starting point is antecedent representationalism. Mary sees something red for the first time, and her visual experience represents iconically a certain physical property of light reflectance. Two main conditions must be met. First, tokens of that experience type must supply information about the instantiation of the property in virtue of the nomological or statistic co-variation between them under normal conditions. That piece of information is coded in analog form. Information about an object is coded in analog form when it is conveyed by means of a signal that carries additional, “nested” information about the object (Dretske 1981). In contrast, a piece of information about a property is coded in digital form when it is conveyed by means of a signal, which carries no additional information. Thus, when Mary sees the color red for the first time, her experience carries information about a very specific shade of red. Second, as a solution to the design problem, tokens of that experience must have acquired phylogenetically the function of indicating the property in question.

Translated into mental file talk, by seeing something red for the first time, a perceptual file is created in Mary’s mind to pick out the color red by storing the information coded in analog form about that property, that is, by hosting a mental image of the particular shade of red at which she stares. That perceptual file is pre-conceptual because it is transitory (it lasts only as long as the perceptual relation with the color lasts), and because it is only hospitable to a mental image of a very specific shade of red. In virtue of (ii), Mary’s original perceptual file cannot be seen as a perceptual predicate because it does not meet the Generality Constraint: by being hospitable to an image of a very specific shade of red, the file cannot be predicated of any object that Mary has a concept of. Even though Mary has the concept of this tomato, of this apple, etc., she is still unable to entertain the thoughts that this ripe tomato is red, that ripe apple is red, etc.

The crucial transition of a pre-conceptual to conceptual file is implemented by the conversion of the information coded in analog form into information coded in digital form. In Mary’s case, this means converting the mental image of a particular shade of the color red into an image of a stereotype of red, say the red of a Ferrari. Thus, while Mary’s pre-conceptual file stores a mental image about a particular shade of red, her conceptual perceptual file is hospitable to a mental image of a stereotype of red. Only thus is she able to predicate that perceptual file of any object

uncorrected proof

nicht korrigierte Fahne

she has a concept of: this ripe tomato is red, that ripe apple is red, this hydrant is red, etc.

Sensory templates

The first suggestion that we think about phenomenal concepts along these lines comes from Papineau (2002; 2007). In his original account (2002), he claims that our brains are wired to form copies or replicas of the experiences we undergo and that these replicas play a crucial role in fixing the reference of phenomenal concepts. To have a phenomenal concept of some experience, we must be able introspectively to focus on it when we have it and to re-create it imaginatively at other times. Phenomenal concepts are mental demonstratives, and with them we can form terms with the structure *the experience*: —, where the gap is filled either by a current token experience or by an imaginative re-creation of an experience. On the basis of this quotational-indexical proposal, the distinguishing phenomenal features of phenomenal concepts are the mental copies or replicas of the experience housed in the file. Exercising phenomenal concepts involves re-creating, simulating, and thinking of a phenomenal state or experience in introspection or memory.

Papineau later rejects his previous quotational-indexical account by saying that it ran together a good idea with a bad one. The bad idea is that phenomenal concepts are demonstrative-like concepts that pick out experiences themselves. Their distinguishing feature is not their phenomenal nature, but rather their cognitive function of accumulating information about experience. Since the function of phenomenal concepts is to carry information from one use to another, they cannot be modeled as mental demonstratives. In opposition to demonstratives and indexicals, sensory templates are suited to serve as repositories of information precisely because they refer to the same thing whenever they are exercised. When the phenomenal concept is activated, the information hosted in it is activated too.

The good idea, unencumbered by the bad one, is that phenomenal concepts are perceptual files or sensory templates whose function is to accumulate information about the relevant referents by storing copies of replicas of experience. The idea is that phenomenal concepts *use* the copies of replicas of the experience housed in the file in order to *mention* the experience (11). Having the transparency of experience in mind, Papineau

nicht korrigierte Fahne

now claims, however, that phenomenal concepts are simply special cases of ordinary perceptual concepts re-used in introspection to think about experiences themselves rather than the objects of those experiences.

The key question is how sensory templates are individuated. According to Papineau, the referential value of a sensory template depends on two factors. First, sensory templates are individuated by their origin: they are created in the individual's mind with the function of accumulating information concerning an entity and making it available for future encounters with the entity. They are also individuated by the kind of information that the subject is disposed to attach to it and project across encounters with the object the template is about (5). For example, I see a particular bird in the distance, and a sensory template is opened in my mind. If I am disposed to attach particular-bird-appropriate information, then my sensory template is about the bird as a particular. By contrast, if I am disposed to attach bird-species-appropriate information, then the reference is to the bird as a species. In this regard, Papineau suggests that sensory templates can be seen as being manufactured with a range of "slots" ready to be filled by certain items of information.

The question is whether Papineau's account can avoid the objections raised against the PCS we have acknowledged previously. On his original quotational-indexical account, the distinguishing phenomenal features of phenomenal concepts are the images of copies of experience housed in the file. By contrast, on Papineau's later account, the distinguishing feature of a phenomenal concept is not its phenomenal nature but its cognitive function of accumulating information about experience. In both cases, phenomenal concepts are individuated in part by the kind of information they house. Therefore, Papineau's proposal faces a dilemma. In order to make sense of Mary's discovery upon her release, we must assume that the information hosted in the file is non-physical, say, the mental copies or replicas of her new experience of red. In that case, phenomenal concepts cannot be explained in physical terms. On the other hand, to account for phenomenal concepts in physical terms, we must assume that the information housed in the file is physical, say, the information obtained by Mary's new perceptual relation to the reflectance property represented by her new experience. In that case, however, phenomenal concepts cannot explain Mary's epistemic progress because Mary already possessed that information in her confinement.

To be sure, there are good reasons to reject the idea that phenomenal concepts are pure demonstratives. As we saw, Mary could also possess

such a demonstrative concept in her confinement (Tye 2009). Under the representationalist assumption that the phenomenal character of the experience of red is one and the same as the color red represented by that experience, Mary could possess such a demonstrative concept, based on the knowledge derived from the black-and-white screen of her computer and her previous knowledge that certain things are red. Mary could pick out the phenomenal character of the experience of red by pointing to a ripe tomato she sees through the screen of her computer. Moreover, the phenomenal knowledge is not a kind of indexical or demonstrative knowledge of the form *I am in this state now*, where *this state* functions indexically to pick out whatever state she is in (Chalmers 2010). Based on her new experiential relation with the red color of the ripe tomato, Mary gains substantive knowledge by acquaintance of the color she comes into contact with and, a fortiori, substantive introspective knowledge of the phenomenal character of her new experience.

Papineau's own principle reason for rejecting the indexical model has already been mentioned: sensory templates are suited to serve as repositories of information precisely because they refer to the same thing whenever they are exercised. Let us take a closer look at the demonstrative model. This model is based on an analogy between mental files and indexical expressions of natural language, more specifically between sensory templates and demonstratives. To be sure, sensory templates do not possess a conventional meaning that maps different contexts onto different contents/entities. For this reason, they are not context-sensitive in the usual sense that linguistic expressions are. Rather, they refer to same entity whenever they are exercised.

Still, the same token/type opposition of the linguistic realm also applies here in the psychological realm (Recanati 2012). Thus, like demonstratives, perceptual files are also token-reflexive. Beyond the perceptual relation between the individual and the perceived entity, there is also the further token-reflexive relation between a perceptual file and the same entity, namely, the relation that holds between the file and the entity whenever that file is tokened in the mind of the individual bearing the perceptual relation to the entity in question (70). Thus, even though perceptual files are not context-sensitive in the usual sense that they refer to the same entity whenever exercised, reference is determined by the perceptual relation the individual bears to the entity. Let us call this perceptual relation the context of experiential contact. The perceptual file can only refer to the same entity to the extent that they are tokened in the individual's mind

that bears the relation of experiential contact with the entity in question.

The crucial point that Papineau's account misses is this: sensory templates, as mental particulars in the individual's mind, are themselves *de re* modes of presentation of the objects they concern. Even though they store information about the object they concern, they are not created with the function of storing information. Rather, they are created with the function of referring to some entity in virtue of a context of experiential contact. Their reference is not determined by any kind of information hosted in the file (phenomenal or not), but by the very relation of experiential contact with the entity the file is about, provided by the token of the perceptual file as a mental type and the object the individual is in contact with.

In that crucial sense, perceptual files are not individuated by the kind of information the individual is disposed to attach to the file and to project across future encounters with the entity the file concerns. Instead, they are type-individuated by the perceptual relations between the individual and the entity represented by the experience that originated the file. In that sense, the kind of information the individual is disposed to attach to the file and to project across future encounters is quite irrelevant. In the particular case of phenomenal files, then, it is quite irrelevant whether the information the subject is disposed to attach is physical or not. It is not the kind of information hosted in the file that accounts for Mary's epistemic advance but the file itself. Mary's new perceptual concept is *the mental file itself* as a mental particular rather than any phenomenal (copies of experience) or non-phenomenal information hosted in the file.

This account of perceptual concepts as perceptual files raises suspicions about the arguments advanced by both Tye (2009) and Ball (2009) against the claim that Mary acquires a new phenomenal concept after her release when she attends to the phenomenal character of her new experience of red. If the perceptual concept of redness is a perceptual file, individuated by the very perceptual relation that gives birth to it, Mary could not possibly possess that concept before encountering something red. The concept RED that Mary acquires by being in a new perceptual relation to the red color of a ripe tomato cannot be the same concept RED that she acquires by reading her books about color and color vision.

Tye and Ball rest their case entirely on the alleged deferential character of color concepts. We have no more reason to believe that Mary acquires the new concept RED when she acquires the ability to recognize red through experience than we have to believe that Putnam acquires the

new concept BEECH when he acquires the ability to recognize beeches through experience. Moreover, Mary can cogently agree and disagree with people who have already undergone the experience of red about numerous beliefs concerning the phenomenal character of the experience of red, and that would not be possible unless a concept of what it is like to see red is shared. The idea is that there is no need to multiply concepts in the way suggested by the PCS.

Now, concepts are also posited theoretically for several reasons, such as for clustering and coordinating information and for reference determination. However, the main reason for positing concepts is to account for problems of cognitive significance: problems of co-reference and of non-reference. For that reason, it seems fair to use cognitive significance as a test to know whether Mary must possess just one concept of red or two: one before her release and another, based on her new perceptual relation to the color red, her perceptual file. All I ask of you is to consider again the case of Marianna. Remember that, like Mary, Marianna is kept captive in a black-and-white room. Unlike Mary, however, when Marianna leaves the room, she is led into a Technicolor vestibule in which there are various patches of different colors on the walls. Thus, before a careful examination of the chemical composition and the reflectance of the colored patches, Marianna can still reasonably wonder whether the color she staring at is red. We do not see how anyone could make sense of Marianna's question or thought as a rational attitude unless we assume that she has two different concepts of red, two unlinked files on the color red, one based on her reading in her confinement, the other based on her new perceptual experience.

Furthermore, we have a simpler reason to reject the assumption that perceptual colors are deferential. First, we would like to remind you that we do possess nonconceptual representations of colors and, most importantly, we possess conceptual but pre-linguistic concepts of color, that is, very simple concepts of color possessed before mastering the corresponding linguistic concept. Empirical findings of developmental psychology clearly indicate that simple concepts arise prior to language in young organisms with cognitive architecture like ours as part of their normal development. For example, a chimpanzee certainly possesses the concept RED even though it obviously does not master our linguistic concept for RED. By contrast, there is no such a thing as a pre-conceptual representation of a BEECH TREE (there certainly are nonconceptual representations of trees), and for the same reason there is no pre-linguistic concept BEECH. The

uncorrected proof

nicht korrigierte Fahne

concepts BEECH and ARTHRITIS are concepts we can only acquire by mastering the corresponding predicates.

Thus, we may recognize with Tye and Ball that our linguistic concept RED is deferential (like the concept BEECH), that is, a concept about whose application its user is disposed to accept correction: any of us may be willing to accept correction as to whether a given shade should be counted as a shade of red. This is no reason, however, to deny that we all have a pre-linguistic concept RED, a concept RED we already possess before the mastering of the corresponding linguistic concept. Thus, when Mary is released and sees the color red for the first time, she acquires a pre-linguistic concept RED and the pre-linguistic phenomenal concept RED. These concepts are not deferential because they are not linguistic in the first place.

Phenomenal files

The question we now face is whether phenomenal files are just perceptual files re-used to pick out the phenomenal character of experience in introspective thoughts, as both Papineau and Dretske claim. To be sure, since Mary's experience is transparent in the relevant sense that when she introspects she does not see internally, so to speak, the phenomenal character of her experience itself, but rather the properties her own experience of red represents, like a perceptual file a phenomenal file can be hospitable to a mental image of a stereotype of red as the property represented by the perceptual experience. Thus, considering the kind of information hosted in both, there is no difference between perceptual and phenomenal files. As before, Papineau's suggestion is that the only difference lies in the subject's disposition to deal with the information hosted in the file: "if the subject is disposed to project experience-appropriate information from one encounter to another, then the sensory template in question is being used to think about the experience" (2007, 10).

However, as the mental files are individuated by the relations that give birth to them, rather than by the kind of information they host (or by the kind of information the individual is disposed to attach to them), a crucial difference emerges between ordinary perceptual and phenomenal files. Perceptual files are opened in the individual's mind in virtue of the relation of experiential contact she bears to the property represented by the experience. They are type-individuated by the patterns of perceptual

nicht korrigierte Fahne

relations between her and the properties they represent. By contrast, phenomenal files are opened in the individual's mind when she attends to her own experience in virtue of the special relation of identity that she bears to herself as the subject of that experience. It is in virtue of being a subject undergoing the experience of a ripe tomato that Mary metarepresents that experience as a representation of red.

In that sense, regardless of whether both mental files host the very same kind of information (roughly, a mental image of stereotypes), they must be different because they are created on the basis of different acquaintance relations. Thus, phenomenal files are not just special cases of perceptual files re-used to pick out introspectively the phenomenal character of an experience by means of conceptual representations of properties already represented by the individual's first-order experience. A further similarity and a further difference from Papineau's account emerge here. In his view, phenomenal files *use* the experience in order to *mention* it. Inspired by Dretske's notion of metarepresentation (1995, 43), we want to suggest, as an alternative, that we use phenomenal files to metarepresent physical properties as properties represented *by experiences*. In this regard, someone cannot acquire a phenomenal concept unless she is already conscious of herself as a subject undergoing the relevant experience.

For Mary to metarepresent her own experience of the color red, two new relations are required: first, to represent the color red, Mary needs to stand in the appropriate relation of experiential contact with that color. To metarepresent that color as the color represented by her perceptual experience, however, she needs to stand in a new relation to herself as the subject of the experience in question. As Mary attends to her new experience, a phenomenal file is opened in her mind to refer to the phenomenal character of that experience by representing red as the color represented by that experience.

As we remarked earlier, however, acquaintance relations are not limited to the relations the individual bears to the entity that the mental files concern. They also cover the relations between tokens and the relevant mental files of which they are tokens. A perceptual file refers to the color red whenever it is tokened in the mind of an individual who stands in the context of an experiential relation to that color. Likewise, a phenomenal file refers to the phenomenal character of the experience of red whenever it is tokened in the mind of an individual who (i) stands in the special relation of identity to herself as the subject (ii) standing in the experiential relation to the color red.

uncorrected proof

nicht korrigierte Fahne

Mary's discovery

To account for Mary's discovery, all we must assume is that she has two unconnected files on the same phenomenal character of the experience of red: a detached physical file (RP), which she acquires by reading her books about color and color vision, and a genuine phenomenal file (Rq), which she could only acquire by attending to the phenomenal character of her new experience of a red patch on the wall. It is the assumption of two unconnected files that makes sense of Mary's discovery.

My suggestion is that the arguments advanced by Tye (2009) and Ball (2009) against the PCS rely on two key misunderstandings. To start with, when they claim that Mary's newly acquired knowledge is "robust," they beg the question in relation to the PCS. If physicalism is true and Mary knows everything about the physics of color and color vision, then Mary's discovery is just like the discovery that Hesperus is Phosphorus. Tye changed his position in this respect in his last book (2012). On his new account, Mary's discovery is not what he calls a *possibility-eliminating discovery*:

One might think in a different way of what it is to make a discovery. The starting point for acquisition of knowledge is a state of information that excludes no possibilities at all: it is a state that rules out no possible worlds from being actual. When new information is acquired, the set of worlds consistent with our information shrinks. Let's say that a *possibility-eliminating* discovery is the addition of a piece of knowledge that shrinks the set of worlds that are consistent with what we know. It is not a possibility-eliminating discovery that Hesperus is Phosphorus, for that is true just at the worlds at which Hesperus is Hesperus, that is, at all worlds. Yet, as we said earlier, this is a cognitive discovery. We should not denigrate cognitive discoveries that are not possibility-eliminating discoveries, for all mathematical discoveries are in this category. (Tye 2012, 125)

Moreover, the criticisms of the phenomenal concept share a common false presupposition: to make sense of Mary's discovery, Mary's phenomenal concept must present the phenomenal character of the experience of red by means of *new* information that she acquires after her release. Because, *ex hypothesi*, she knows all the physical facts there is to know about the color red and about the vision of red, however, that newly acquired information must be non-physical. What is overlooked in this shared assumption is that the phenomenal files themselves are *de re* modes of presentation.

uncorrected proof

nicht korrigierte Fahne

What is new is not any kind of information hosted in the phenomenal file but the phenomenal file itself as a *newly created mental particular*. The phenomenal file presents the phenomenal character of the experience of red by means of Mary's relation of identity to herself as the person standing in an experiential relation to the color red.

REFERENCES

- Bach, Kent 1987: *Thought and Reference*. Oxford: Oxford University Press.
- Ball, Derek 2009: "There Are No Phenomenal Concepts." *Mind* 118(472), 935–962.
- Balog, Katalin 2012a: "Acquaintance and the Mind-Body Problem." In: Christopher Hill & Simone Gozzano (eds.), *New Perspectives on Type Identity: The Mental and the Physical*. Cambridge: Cambridge University Press, 16–43.
- 2012b: "In Defense of the Phenomenal Concept Strategy." *Philosophy and Phenomenological Research* 84, 1–23.
- Chalmers, David 2010: *The Character of Consciousness*. New York: Oxford University Press.
- Dretske, Fred 1981: *Knowledge and the Flow of Information*. Cambridge, MA: MIT Press/Bradford Books.
- 1988: *Explaining Behavior*. Cambridge, MA: MIT Press.
- 1995: *Naturalizing the Mind*. Cambridge, MA: MIT Press/Bradford Books.
- 1999: "The Mind's Awareness of Itself." In: Fred Dretske (ed.), *Perception, Belief and Knowledge*. Cambridge: Cambridge University Press, 158–177.
- Evans, Gareth, 1982. *The Varieties of Reference*. Oxford: Clarendon Press.
- Forbes, Graeme 1990: "The Indispensability of *Sinn*." *Philosophical Review* 99, 535–563.
- Jeshion, Robin 2010: "Singular Thought: Acquaintance, Semantic Instrumentalism and Cognitivism." In: Robin Jeshion (ed.), *New Essays on Singular Thought*. Oxford: Oxford University Press, 105–40.
- Nida-Rümelin, Martine 1996: "What Mary Couldn't Know." In: Thomas Metzinger (ed.), *Conscious Experience*. Exeter: Imprint Academic, 219–241.
- 2002: "Qualia: The Knowledge Argument." In: Edward N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy* (Fall 2002 Edition). Available at <http://plato.stanford.edu/archives/fall2002/entries/qualia-knowledge/>.
- Papineau, David 2002: *Thinking about Consciousness*. Oxford: Oxford University Press.

uncorrected proof

nicht korrigierte Fahne

- 2007: “Phenomenal and Perceptual Concepts.” In: Torin Alter & Sven Walter (eds.), *Phenomenal Concepts and Phenomenal Knowledge: New Essays on Consciousness and Physicalism*. Oxford: Oxford University Press, 111–144.
- Perry, John 2001: *Knowledge, Possibility and Consciousness*. Cambridge, MA: MIT Press.
- Recanati, François 2012: *Mental Files*. Oxford: Oxford University Press.
- Russell, Bertrand 1918: “Knowledge by Acquaintance and Knowledge by Description.” In: Bertrand Russell (ed.), *Mysticism and Logic and Other Essays*. London: George Allen & Unwin, 209–233.
- Stoljar, Daniel 2005: “Physicalism and Phenomenal Concepts.” *Mind and Language* 20(2), 296–302.
- Tye, Michael 2009: *Consciousness Revisited: Materialism Without Phenomenal Concepts*. Cambridge, MA: MIT Press.
- Tye, Michael & Sainsbury, Richard. M. 2012: *Seven Puzzles of Thought*. New York: Oxford University Press.