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A Realistic and Non Reductionist Strategy with respect to Properties

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Résumé : Peut-on et doit-on admettre des propriétés non physiques ? Une ontologie minimale accepte seulement la réalité des propriétés physiques. Elle prend appui sur un critère d'existence restreint : le critère causal. A l'inverse, une ontologie d'accueil affirme la réalité d'au moins certaines propriétés non physiques, et conteste par là la validité du critère causal. Le but de cette investigation est de défendre une version modérée du réalisme par rapport aux propriétés non physiques et de proposer un nouveau critère d'existence : le critère explicatif.

Abstract: Is it possible and necessary to admit of non-physical properties? A minimal ontology accepts only the reality of physical properties. It is based on a restrictive existential criterion, namely the causal criterion. On the contrary, a fostering ontology insists that at least some non-physical properties are real, and therefore denies the validity of the causal criterion. The purpose of this investigation is to defend a moderate version of realism with regard to non-physical properties and to suggest a new existential criterion for properties: the explicative criterion.

Properties, that are features, attributes, qualities and characteristics of things, play an important explanatory role: they are not only meant to explain how general terms apply, but also to take into account the epistemological phenomena such as recognition or classification of new entities, as well as notions such as recurrence, objective resemblance and identity of nature within the ontological domain. How one conceives the explanatory role of properties depends upon how one answer the following three questions that may be raised regarding their nature:

1. What is the condition for their existence?
2. Can we determine an identity criterion for properties?
3. What kinds of properties should we accept?

The opinions suggested here focuses on this last question. From a general realistic point of view which claims the existence of properties¹, we will ask ourselves which ontological option of the various kinds of properties is the most consistent: a minimal ontology based on a restrictive existential criterion or a fostering ontology that contests the validity of this criterion.

If we consider ordinary speech, declares attributes to objects, persons and situations, which typically denote the properties (from a realistic point of view) are various: “being a dog”, “being rectangular”, “being virtuous”, “being delicate”, “being sad”, “being straight”, “being blue”, “being elastic”, “being beautiful”... But do we have to assume the existence of these different types of properties, or is it better to restrict the properties to one family? Should we and could we do without non-physical properties (set of properties not admitted by physics)? Is an ontology that accepts only physical properties (set of properties admitted by physics or reduced to these properties) sufficient to account for concrete familiar entities? Can non-physical statements be truly objective? If so, what are their truth conditions? And finally, can we say that there are non-physical properties that explain the meaning of non-physical statements?

A minimal ontology is a localised form of anti-realism: only some properties — physical properties — exist. Thus, no entity is beautiful, virtuous, coherent or frightening... This anti-realistic strategy is based upon a causal criterion of existence according to which the quantification of properties is necessary only in causal contexts: to assert the existence of an entity, it is necessary and sufficient that this entity is included in causal interactions; non-physical properties which by definition are not reduced to physical properties, do not have any part in causal explanations; therefore, it is ontologically excessive and unconvincing to accept non-physical properties. From a semantic point of view, anti-realism assumes either the non-descriptivist hypothesis that non-physical statements are only the expression of subjective attitudes, or the descriptivist hypothesis that such statements have a propositional content. This idea is combined with a theory of general error — all non-physical statements are false — or with a reductionist theory — physical properties are the truth conditions of such statements — or with a subjectivist and relativist theory — non-physical predicates have a private meaning. Whereby the epistemological consequence: our ordinary discussions about non-physical topics (moral, axiological, aesthetic, psychological...) are meaningless and useless.

¹Realism with regard to properties is opposed to nominalism, which does not accept the existence of properties.

Against anti-realism about non-physical properties, we will argue the objective reality of them: non-physical statements, if they are true, refer to properties of entities and expose fundamental aspects of the world. The line of argumentation for such a realistic strategy will be divided into two steps. The first part will be an evaluation of the anti-realist claim of the truth. Their semantic and ontological presuppositions will be examined. In the second part of this thinking, we will be defending a realistic and non-reductionist strategy about non-physical properties: objects, to which we correctly give attributes, possess these properties. The descriptivist hypothesis that non-physical statements have truth conditions will be articulated with a moderate version of non-reductionist realism: revision of the existential criterion of properties, affirmation of the principle of instantiation — properties ontologically depend on particular objects to which they belong —, relational analysis of non-physical properties, and finally acknowledging of the supervenience of non-physical properties on physical properties.

The aim of this paper is not to put forward a complete metaphysics of properties, but to stress the consistence and advantages of a realistic and non-reductionism conception with regard to non-physical properties. By endorsing this ontological option, it is possible to overcome the difficulties of anti-realism (whether it being reductionist or not) about non-physical properties. It leads to a vast ontological investigation regarding mental, moral, aesthetic and axiological properties.

1 Minimal ontology and localised anti-realism

Physicalism according to which irreducible non-physical properties are pseudo-properties, can be based on two different arguments:

- a) A semantic argument: non-physical statements are devoid of descriptive function. They don't have any truth conditions.
- b) An ontological argument: even if non-physical statements are descriptions, non-physical properties are not what make them true.

1.1 The semantic argument

When a subject S says “The *Prelude n° 2 op.28* of Chopin expresses anger”, this statement does not describe the musical work and does not predicate any properties to it. This type of statement cannot be true in the same way as factual statements like “The musical performance by Samson François lasts 3 minutes and 12 seconds”. A non-physical statement is like an interjection (“hurrah!”): it has no propositional content and tells nothing about the world. This hypothesis could be supported in two different ways: either on the basis of the emotivist conception², or on the basis of the prescriptivist conception³.

According to the first version, the syntactical form of non-physical statements masks their real function: they function primarily to express emotion (considered as a non-cognitive mental state) and also to arouse similar emotions in others. Non-physical statements do not have any truth conditions: they do not describe any of the world’s aspects⁴. And when an emotivist says that a non-physical statement expresses an emotional attitude, he means that this sentence expresses an attitude without saying that we have the attitude. Thus, Simon Blackburn distinguishes the description of things by means of natural factual statements from their evaluation (in a wide sense) in terms of what is good, bad, funny and delicate. . . A moral statement such as “This action is generous” does not describe the action, or the agent, or the speaker, but it is simply the expression of the speaker’s feelings. Far from describing features of the world, non-physical statements are the expression of our feelings and emotions [Blackburn 1998, 49]. And these emotions are mental events devoid of cognitive content.

In the previous case, non-physical statements prescribed, called for some feelings or attitudes about the considered entity. A seemingly non-physical declarative statement expresses in reality a preference with universal vocation that takes the form of an imperative. This analysis is called “normative-expressive” and was developed by Allan Gibbard [Gibbard 1990, 8–10]: to say that something is frightening is not to assert a fact but to accept the stipulated norms in that situation, which is fear. The norms constitute a system of permissions and demands. The main argument in favour of prescriptivism is:

²A.J Ayer and C.L Stevenson developed emotivism in ethics.

³R.M. Hare defends prescriptivism in ethics.

⁴Stevenson distinguishes about axiological predicates a primary meaning, which is purely evaluative, and a secondary meaning, which is descriptive. But the primary meaning is the real function of axiological predicates.

- i Descriptivism leads to relativism because the meaning of the affective terms is not rigid: it varies from one person to another, from one society to another and from one time to another.
- ii But, relativism must be denied.
- iii So, descriptivism is false: it must be replaced with prescriptivism [Virvidakis 2004, 102].

These two conceptions admit that non-physical statements have some strength, but they diverge about how to specify this strength: emotional function or prescriptive function. The non-descriptivist hypothesis emphasizes the descriptivist illusion carried by non-physical statements. It has three consequences. Firstly, non-physical statements have emotional influence, a form of magnetism: there are stimuli that have the causal disposition to provoke some emotions [Adams 1950, 315]. Secondly, non-physical disagreements are simulated: they are not disagreements about the considered entity but are disagreements between non-cognitive attitudes. Thus, no non-physical statement is false: these kinds of judgements in their capacity of non-cognitive attitudes do not contradict each other. As a consequence, a resolution of the disagreement does not consist in exchanging arguments but in successful attitude shifting [Dreier 1999, 563]. Finally, the given cognitive reasons — for example, an explanation of musical expression in terms of the tonality, tempo, structure, etc. of a musical piece — are causally but not logically linked with non-physical judgements. The given reasons do not make these judgements more or less correct [Stevenson 1950, 303].

Nevertheless, the non-descriptivist hypothesis is based upon an indefensible semantics and epistemology: the assumption of a semantic dualism between factual statements and axiological statements⁵, the claim that non-physical judgements cannot be mistaken⁶, so the problem of relativism, and lastly, the identification of emotions with private mental events devoid of cognitive content. Moreover, the non-descriptivist

⁵Various features of the way we think and talk support the idea that axiological statements are genuinely truth-evaluable. In fact, it is clear that people do generally regard their axiological claims, and the axiological claims of others, as purporting to report facts. Thus, the contrast between axiological and factual statements cannot be drawn in terms of whether the claims are truth-evaluable. The non-descriptivist must explain why axiological claims mimic so well factual claims, and offer an alternative account of the difference between axiological and factual statements. In the absence of such an explanation, the non-descriptivist has no distinctive thesis.

⁶It is semantically appropriate for someone to utter a non-physical judgement whenever he wants to express a non-cognitive attitude.

conclusions as well as its premises are weak. In the first place, rational explanation is confused with causal explanation: the reasons that allegedly justify or revise a non-physical judgement are not what causes it. To maintain that murder is not morally good is to take on a commitment to this assertion. And so, it is possible to give logical reasons connected with this judgement. Secondly, the non-descriptivist hypothesis faces the “Frege-Geach problem”: it cannot explain why non-physical statements may take a non-assertive form (interrogative, conditional, negative). Consider the following line of argumentation:

- i If murder is wrong, then letting your little brother murder people is wrong.
- ii Murder is wrong.
- iii Then letting your little brother murder people is wrong.

The problem for the non-descriptivist is that he must accept a difference of status between premises (i) and (ii): it assigns two different semantic functions to the same statement according to the context (whether assertive or not). Thus, premise (ii) must work (for the non-descriptivist) as the arousal of an attitude — to be ashamed — and not as the assertion of a statement. But premise (i) doesn’t assume the arousal of an attitude: it has a propositional content. This contradiction contests the validity of this reasoning that is based upon the principle (exposed by Frege) of identity for conditional or asserted propositions. Therefore, in order to avoid these difficulties, we must accept that non-physical statements have a descriptive function.

Nevertheless, it might be suggested that deflationism about truth can ride to the rescue of anti-realism. In fact, according to the deflationary theory of truth, non-physical statements have a content — at the contrary of non-descriptivism — but their content are not true or false in a robust sense : they can be true or false in a deflationary sense, that is to assert that non-physical statement is true is just to assert the statement itself. For example, to say that “Fred is generous” is true is equivalent simply to saying that Fred is generous. Deflationism can be understood by contrast with the correspondence theory of truth according to which truth consists in a relation to some portion of reality (to be specified) — for example, the truth of the statement that Fred is generous consists in its correspondence to the fact that Fred is generous. Deflationism could bypass the above objection, the Frege-Geach problem, because it generates a minimal truth condition for any meaningful indicative sentence. But deflationism with regard to non-physical statements implicates that minimal truth conditions for non-physical statements can be

distinguished from more robust truth conditions: there is to be a justified division of discourse into minimal truth-apt conditions and robust truth-apt conditions. But, no justification is furnished for this division. Moreover and much more broadly, deflationism is inconsistent with the correspondence intuition that explains the notion of truth with regard to physical and non-physical statements, by appeal to the notions of correspondence and fact. Finally, it is difficult for a deflationary theory of truth to consider truth as a norm of assertion.

1.2 Ontological argument

In the framework of a robust theory of truth, descriptivism does not imply realism about non-physical properties. Anti-realism of non-physical properties could take three different forms:

a Theory of general error

Every non-physical statement is false.

- i In fact, this type of statement attributes some non-physical properties to the objects.
- ii But these properties do not exist: only physical properties are real.
- iii So, every non-physical statement is systematically and uniformly false.

Consequently, there is nothing in the world answering to our non-physical statements: no facts or properties render these judgements true. Psychological, aesthetic, axiological and moral (etc.) propositions, all of them are false; and only physical judgements can be true. According to a defender of the theory of general error, this theory does not necessarily have consequences for the practice of making axiological judgements. But, as Wright's argument shows [Wright 1996, 2], this theory considers that axiological discourse is bad faith: it is not consistent combining the idea that axiological discourse is serious and useful, with the negative claim of the error-theory.

b Physicalist reductionism

Some non-physical statements are true. But the true conditions of these statements are, *in fine*, physical properties. For example, the mental disposition "to be sad" is reducible to a disjunctive set of physical properties (cerebral states or bodily states). So, non-physical statements do not give specific information about the considered entity: it is possible to replace non-physical statements by physical statements.

c Subjectivism and relativism

All non-physical statements are true because they denote the way the considered entity looks for us. Non-physical statements attribute phenomenal and subjective properties to the object. Then, the real subject of the description is not the considered entity but the speaker, his feelings, his ideas, etc. It is important to consider the difference between subjectivism and emotivism: the second admits that non-physical statements express feelings, the first that they describe feelings. A non-physical statement like “ X is A ’ where X is an object, and A a non-physical predicate, means, “ S feels the A when he looks at X ”: the non-physical property attributed to X is a psychological property attributed to the subject S . So, the proposition “ X is A ” is true if and only if a subject which perceives or conceives X , feels A or a matching emotion. Non-physical properties are relative; and subjective projections and non-physical terms have private meanings⁷. Due to the (supposed) first person’s authority, no non-physical statement can be revised: they are incorrigible. Consequently, non-physical argumentations and disagreements are simulated.

The validity of these conceptions⁸ is based upon an ontological presupposition: physicalist monism according to which only physical properties are real and objective properties. But what is “physicalist monism”?

Physicalist monism adopts a causal criterion of existence: quantification of properties is necessary in causal contexts [Shoemaker 1980, 234–235].

- i In order to accept the existence of a property, it is necessary and sufficient that this property is integrated in causal interactions.
- ii Irreducible non-physical properties are causally inert.
- iii So, it is ontologically excessive to accept non-physical properties.

What is a causally relevant property? Real properties have two characteristics: they are natural and intrinsic. For property F to be a natural

⁷The words of the non-physical language are to refer to what only can be known to the speaker, which is to his immediate and private sensations. Thus, it is a language comprehensible only to its single originator: the characteristics, which define its non-physical vocabulary, are inaccessible to others. So, another speaker cannot understand its language. But, there cannot be such a language: sharability is necessary to meaning. The concept’s meaning is not reducible to an internal mental state of the concept’s user.

⁸It is not a necessary presupposition for the subjectivist conception, though widely held.

property, it is sufficient that F is part of causal laws. A property is intrinsic (or non-relational) if the entity has this property regardless of its relation with anything else. The true value of an authentic judgement is independent of human classification. Thus, this realism about properties is selective and minimalist. It is an *a posteriori* scientific realism articulated with physicalism: the complete inventory of real properties is established by (achieved) physics, which is the science of natural laws having natural properties for relata.

Does localised anti-realism combined with descriptivism constitute a good alternative to non-descriptivism? Firstly what of the strategy by elimination? Non-physical properties are projections of the mind. They are not properties of objects. Erroneous attributions of non-physical properties are reducible to social practices, that is to vocabulary's learning in a specific language. Thus, nothing in the world legitimises the attribution of this non-physical predicate rather than another. Only the projection frequency of that predicate explicates the attribution of this predicate rather than another [Goodman 1954, 12]. However, no justification is given in favour of the idea that moral, aesthetic and psychological (etc.) experiences are constitutively illusory: the strategy by elimination has to split (arbitrarily) perception in a neutral relation - for example, to look at a tree - and a relation of quasi-fascination - to see that tree as beautiful. But, to perceive a tree as beautiful is one and only one perception, which is a fine aspectual perception: there is not a perception and an illusory interpretation, which is added to this perception. This aesthetic perception is genuinely a perception, which requires that an aspect — the beauty of the tree — is really perceived⁹. Moreover, this anti-realistic strategy makes two questionable reductions. Firstly, that the attribution of non-physical properties is based on a command of language game does not entail that non-physical properties are not real. Secondly, real properties are not necessarily intrinsic properties¹⁰, but the eliminative assumes without justification that the distinction between real property and pseudo-property coincides with the distinction

⁹And if for example, I see a tree as beautiful and after as reassuring, it is two different aspectual perceptions and not one perception interpreted in two different ways.

¹⁰For example, it is possible to consider that the authenticity of a work of art is a real extrinsic property: a passport is authentic under an attribution, then authenticity is not an intrinsic property; authenticity is not a simili-property that is a relative, exclusively phenomenal property; authenticity is not reducible to an intrinsic property (if there are two passports, one authentic and the other a copy, and it is impossible to distinguish between the two an extrinsic property makes one the original and the other a fake). I will defend the possibility of real extrinsic properties in the next chapter.

between intrinsic property and extrinsic property.

Does the strategy by reduction avoid these difficulties? According to this hypothesis, real non-physical properties are reducible to physical properties. The identity between real non-physical properties and physical properties is either type-identity or token-identity. To consider the consistency of reductionist strategy, it's necessary to examine the notion of reduction: what is reduction of non-physical properties?

The first way to understand the notion of reduction is that the relation of strong supervenience guarantees reduction. Strong supervenience entails that there is no difference in supervenient properties without difference in basic properties: a set of properties *A* supervenes upon another set *B* just in case there cannot be an *A*-difference without a *B*-difference, that is if and only if a difference in *A*-properties requires a difference in *B*-properties¹¹. Nevertheless, supervenience is consistent with emergence: from the supervenience of *M* upon *P*, we cannot conclude to the reduction of *M* to *P*, though reduction, as such, requires supervenience. In fact, reduction requires property identity (identity of non-physical properties with physical properties), so even supervenience with logical necessity is not sufficient for reduction of non-physical properties.

In order to save the naturalization of non-physical properties, another constraint is introduced: reduction of non-physical properties consists in explanation of non-physical properties in terms of physical properties and not only in property identity; reduction is the explanation of a set of higher-order properties by a set of basic properties. The logical derivation of the former from the latter requires two formal conditions: connect ability and derivability [Nagel 1961, 353–354]. Then, a defender of anti-realism with respect to non-physical properties has to establish explanatory bridge laws, which should be considered to express some kind of identity relation. But, difficulties with reduction arise because of singular limits [Berry 2002, 10–11] the idea that non-physical descriptions could (and must) be replaced with physical descriptions is questionable: it is possible that some non-physical descriptions have a new explanatory role, and that the higher-order properties are not fully explainable in terms of basic properties. The fundamental set of properties (physical properties) can be self explanatorily deficient: there are phenomena whose explanations require reference to a set of non-physical properties.

Nevertheless, reduction could be analysed in terms of causal identity. A property is realised by a basic property if and only if the set of the potential causal powers of the superior property is a subset of the po-

¹¹Thus, supervenience claim has modal force.

tential causal powers of the basic property [Wilson 1999, 42]. So, the reduction of M to P is possible because M 's extension is identical to P 's extension. But the condition of co-extension isn't sufficient for an ontological reduction: when ontological reduction is an assertion about what is real and what is not real, the relation of co-extension, as a symmetrical relation, does not entail a difference of status. If the properties M and P fulfil the condition of co-extension, how do we determine, between M and P , the reduced term and the reductionism term? It is often a prejudice in favour of physicalism that determines physical properties as basic properties, combined with the idea of multiple realisability¹².

The last option, for the localised anti-realist, is to conceive reduction as a relation between the whole and its parts. Reduction is a relation of composition, which is not symmetrical: the parts of the whole are more fundamental than the whole; the whole can be reduced to its parts. This option defends a mereological conception of composition, which supposes extensionalism¹³ and mereological atomism¹⁴. But two objections against this solution emerge. First, the idea of composition's ontological innocence according to which the whole is identical to its parts, is questionable. A structure cannot be reduced to its constitutive material: for example, a musical structure cannot be reduced to its parts (sounds) and its parts cannot be identified without the structure (a tonal change modifies the part's function). Second, this option makes confusion between a real entity and a fundamental entity (i.e. a basic entity which is ontologically independent with respect to another entity of the same type)¹⁵. But what is real is not necessary fundamental: a real entity could ontologically depend of a fundamental entity; and ontological dependence is not sufficient for ontological reduction.

2. An economical and non-reductionist strategy

The failure of physicalism calls for a revision of the existential criterion of properties and a reconsideration of the first question: how can we determine the nature of real properties? The purpose of metaphysics of properties, as a metaphysical theory, is to describe what kinds of properties there are and to give a conceptual analysis of ordinary concepts. This analysis is constrained by common sense beliefs. Thus, metaphysics is a modest discipline, which takes as an object our ordinary beliefs of

¹²Many different physical properties could underlie the same non-physical property.

¹³Two entities are identical if their extensions are identical.

¹⁴The parts are first with regard to the whole.

¹⁵For example, a physical property is fundamental because it doesn't depend on other properties (though it depends of a substantial particular); a non-physical property is not fundamental because it has to have existential condition to supervene on physical properties.

what things are, their essential or accidental way of being. If we start with common sense, causal explanation is not the only reason to believe in the existence of properties: it is an inference to the best explanation. Thus, the explanatory criterion can replace the causal one as an existential criterion of properties.

- i Properties are accepted to explain from a semantic point of view, the applicability of general terms, but also epistemological phenomena like identification or classification of new entities and lastly, in the ontological domain, recurrence, objective resemblance or identity of nature.
- ii At least, some irreducible non-physical properties like aesthetic, psychological and moral properties play an important role in those three domains.
- iii So it is necessary to accept (at least) the reality of some irreducible non-physical properties.

Thus, if we want to explain the meaning of ordinary discussions, we need a large selection of properties. In fact, properties not only explain causation and laws of nature, but they also have other explanatory roles. According to the existential criterion supported here: for properties, to exist is to have an authentic role with a view to the best explanation of the nature of entities. The explanatory criterion, unlike the causal criterion, is ontologically neutral and could take common sense into account. The explanatory criterion doesn't tell us what types of properties are real: it is necessary to wonder every time if a type of property is irreplaceable. Therefore, the explanatory criterion requires to determine a posteriori what is a relevant and necessary explanation: when the distinctive nature of a phenomena cannot be directly characterized and explained in terms of the resources of the basic physical theory and requires us to make use of a set of non-physical properties, these non-physical properties must be known as real properties.

This existential criterion is combined with a coarse-grained criterion of individuation: properties are not individuated as finely as linguistic terms, which denote them. Each predicate does not correspond to a property. For example, the property *being red and square* is not distinct from the property *being square and red*. Two alleged properties are identical just in case they give exactly the same explanation, that is they confer the same explanatory roles on their instances.

The argumentation in favour of a realistic but economical strategy connects these criteria with the following principles: the principle of

instantiation [Armstrong 1978], the possibility of a relational analysis [Pettit 1991 587–626], and the non-reductionist supervenience of non-physical properties¹⁶.

2.1 The principle of instantiation

Only properties, which are instantiated by particulars, exist. For properties, to exist is to be instantiated. The principle of instantiation maintains that there are no transcendent properties. There is an ontological dependence of properties with regard to particulars and a semantical dependence of particulars with regard to properties. Instantiation is like the fulfilment of a function by an argument: it is not a relation. It's a metaphysical adhesive: it is not necessary to introduce another term to "affix" the properties and the particular object which instantiates them.

Concreta particulars are ultimate constituents of the world. Due to the ontological dependence of properties with regard to particulars, real non-physical properties do not introduce an ontological difference of the ultimate constituents: a description of the world which does not refer to aesthetic, psychological or moral properties, passes over some essential or accidental ways of being of entities but no entity.

1.3 The relational analysis

A real property is not necessarily intrinsic: it could be extrinsic or relational. An intrinsic property is a property, which an entity possesses independently of its relations with other things. An extrinsic property is a property that an entity possesses in virtue of its relations with other things. The relational characteristic of a property does not implicate its subjectivity or its unreality. This idea is due to confusion of what we mean by "intrinsic". This term can take two different meanings: either, in a loose sense, an intrinsic property is a property possessed by the considered entity (it's a property of its own); or, in the strict sense, an intrinsic property is a property possessed by the considered entity independently of its relations with other things. Relational or extrinsic properties are "intrinsic" one in the loose sense but not in the strict sense.

Consider for example the aesthetic property "to have a pastoral feature" granted to Goldberg Variation n°22 of J.S Bach. The terms of the relation are some physico-phenomenal properties of the musical work on the one hand, and a person having some dispositions (beliefs, emotions, etc.) in standard conditions of perception (related to the kind of musical work in question) on the other. The *Goldberg Variation* n°22 possesses

¹⁶For moral properties, see Ogien, 1999; for aesthetic properties, see Pouivet, 2006.

the aesthetic property “to have a pastoral characteristic” if this work is perceived as having this property by a listener (actual or hypothetical) in appropriate conditions of perception. The conceptual link between this property and the fact, to be understood as such does not implicate the reduction of the aesthetic property to the experience of the listener. Aesthetic properties do not transcend our cognitive capacities; nevertheless, they are real. So we have to distinguish between the two types of objectivity [John McDowell 1985, 253]: a strong objectivity, which implicates independence from every human response and a weak objectivity, which only requires independence from particular human responses.

Standard conditions of perception, which are subjected to public criteria, guarantee the correction of perception. They include a set of concepts, some historical and cultural knowledge, an education of the senses, and a familiarity with this kind of work, etc. It is difficult to determine these standard conditions of observation, hence the difficulty to guarantee the attribution of non-physical properties and the epistemological distinction between non-physical properties and physical properties: it is easier to attribute physical properties than non-physical properties.

1.4 The non-reductionist supervenience

That some non-physical properties are irreducible does not mean they have no connection with physical properties. The irreducibility of some non-physical properties does not implicate the absence of link between physical and non-physical properties. Non-physical properties supervene globally on physical properties and emerge from them¹⁷. In this sense, supervenience is not ontologically innocent: non-physical properties are something over and above physical ones; it is a global supervenience because it is impossible to determine a set of basic properties from which we could predict the instantiation of a non-physical property. Thus, it is impossible to determine a set of sufficient basic properties from which we could predict the instantiation of a non-physical property. For example, the possession of the property “being frightening” could depend on various subvenient properties and from the knowledge of the subvenient properties, it is not possible to know the supervenient property. The supervenience of non-physical properties on physical properties does not entail their ontological reduction: they are qualitatively different. But emergent properties are not mysterious: they result from an interaction between subvenient properties.

¹⁷As I have shown on page 10-11, supervenience doesn’t entail reduction and is consistent with emergence.

In summary, a real property is an authentic property, which really exists and is irreducible to another property or a set of properties. A real property is not necessarily fundamental (independent of other properties): there are basic or subvenient properties and supervenient properties. Moreover, a real property is not necessarily intrinsic: there are intrinsic and extrinsic properties. And lastly, a real property is a property, which plays an irreplaceable explanatory role.

2 Conclusion

We have good reasons to believe in the existence of at least some non-physical properties. In fact, the anti-realistic hypothesis under its various forms, encounters several difficulties. Moreover, the realistic hypothesis is a coherent option. It explains the descriptive content of non-physical statements and the fact that such statements could be asserted, denied, or reappraised. It takes into account the normativity of non-physical statements. Notions of correctness and truth are implied in ordinary non-physical judgements: it is not possible that two opposite moral judgements are at the same time true; a moral judgement can be false. Moreover, non-physical disagreements, like scientific disagreements, can really be resolved: the question “Is this action [torture] morally good?” has the same status as the question “Is the theory of evolution better than creationism?” Consequently, the realistic non-reductionist strategy explains two ordinary beliefs. On the one hand, we take part in discussions; we make some argumentations and give justifications when we talk about moral, aesthetics, etc. On the other hand, some discussions are easier to resolve than others. Lastly, the anti-realistic objection that non-physical properties are epiphenomenal, that is causally inert, is not radical: it can be assumed that it is a categorial error to attribute to properties causal powers. What has causal powers is an object in virtue of its properties. This problem is due to a reification of properties; but properties cannot be separate to their object which in turn instantiates them. So, properties do not have causal powers but only the objects of which properties ontologically depend on do.

The realistic strategy defended here is distinct from dualism (hypothesis according to which two incommensurable realities exist) and naturalism (hypothesis which progressively eliminates non-physical properties). Against dualism, this strategy accepts that non-physical properties depend on physical properties. Against naturalism, realism maintains that some non-physical properties have an irreplaceable explanatory role.

This strategy avoids a problematic ontology (there are two separate realities) and an impoverished epistemology (only physical descriptions of the world are valid)¹⁸.

It is also distinct from radical realism. Realism can take various forms. It depends on two variables: the kind(s) of non-physical properties which are accepted and the way of being of these properties. Radical realism with regard to non-physical properties is the thesis according to which 1) every non-physical predicate corresponds to a real non-physical property, and (or) 2) non-physical properties are real because they are intrinsic. A radical realist can admit the proposition (1) and deny (2), or vice versa. On the contrary, moderate realism with regard to non-physical properties is the thesis of 1') a coarse-grained criterion of individuation for properties and in particular non-physical properties, and 2') a difference between intrinsic and extrinsic properties. The line of argumentation defended in this investigation articulates 1') with 2'). To conclude, realism about some non-physical properties does not entail an ontological profusion of properties, or a misrepresentation of the relations between physical properties and non-physical properties.

¹⁸According to Fodor, "emergence" is an epistemological and not metaphysical category (though it does not use the language of emergence, it defends this view): emergent properties are features of systems governed by generalizations within a special science irreducible to physical theory. Therefore, it is possible to defend an epistemology not reduced to physics in another version than to defend this one. Nevertheless, the advantage of the latter from the former is that it does not reduce explanation to causal explanation.

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