

# Inexpressible Properties and Propositions

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## Abstract

Inexpressible properties and propositions play an important role in various metaphysical debates, in particular in the attempt to refute views that closely relate properties to predicates, and propositions to sentences. Such views are of particular interest since they can accept talk about properties and propositions as being literally true, while at the same time explaining why metaphysical projects into the nature of properties and propositions are based on a mistake. In this paper we will investigate whether or not considerations about inexpressible properties refute such views. We will conclude that, once properly formulated, they are not refuted by them. How these views are to be properly formulated is part of the difficulty in avoiding problems with expressibility. A number of more technical arguments for rejecting a close connection between properties and predicates are also discussed and found wanting. Finally, a hypothesis about how different languages differ in expressive strength is formulated and discussed.

# 1 The relevance of inexpressible properties for the large scale debate about (talk about) properties

Everyone working on metaphysical questions about properties or propositions knows the reaction that many non-philosophers, even non-metaphysicians, have to such questions. Even though they agree that Fido is a dog and thus has the property (or feature or characteristic) of being a dog, it seems weird, suspicious or confused to them to now ask what that thing, the property of being a dog, is. The same reservations do not carry over to asking what this thing, Fido, is. There is a substantial and legitimate project to find out more about Fido, but is there a similar substantial and legitimate project to find out more about the property of being a dog? Metaphysicians know that there is a straightforward way to motivate such a project, and much of the contemporary debate in the metaphysics of properties is in the ballpark of carrying it out. If we agree that Fido has the property of being a dog, then there is something which is a property and which Fido has. Thus we can ask about what this thing is that he has. How does it relate to Fido? Is it concrete or abstract? Is it fully present in each object that has it? And so on and so forth. Maybe the non-philosophers are merely not used to ask such questions about unusual entities like properties, but they are equally legitimate for them as they are for any other thing. However, even metaphysicians sometimes have the nagging feeling that something has gone wrong in the metaphysics of properties, and that a substantial metaphysical investigation into their nature is somehow based on a confusion. This is not based on a rejection of metaphysics in general, but concerns the metaphysics of properties in particular. One obvious way to defend that such investigations are based on a confusion is either to reject talk about properties as being based on a mistake of some kind, or to accept such talk, but hold that it is not literally true. If property talk is not to be taken literally, then no wonder that an investigation into the nature of properties is not on a par with an investigation into the nature of Fido. But these two options are not very attractive. Property talk can't just be rejected without paying a stiff price, and construing it as fictional can only work if the fictional goes way down to the basics of our ordinary discourse, a conclusion not many are willing to accept.<sup>1</sup> But there might be other options.

Let's call a *minimalist approach to the theory of properties* a philosophical theory that explains why substantial metaphysical projects into the nature of properties are mistaken, while at the same time accepting talk about properties, and construing such talk as literal and

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<sup>1</sup>For someone who does accept it, see [Yablo, 2000].

often literally true. This can be contrasted with a *substantial approach to the theory of properties*, which holds that substantial metaphysical investigations into the nature of properties are not confused, but merely unusual and maybe difficult. Basically all of the work done these days in the theory of properties is in the ballpark of a substantial approach to the theory of properties, whereas a minimalist approach would be congenial to the non-philosopher's judgments. The hard question, however, is how one could possibly defend such a minimalist approach. It would have to explain what is wrong with the simple and straightforward motivation of a substantial metaphysical theory of properties outlined above. But what could possibly be mistaken about asking what things these properties really are, given that one holds that there are properties? In this paper we will outline some ways in which one can hold onto a minimalist approach, both for properties and for propositions as well. These minimalist approaches, however, will be threatened by considerations about expressibility that rely on inexpressible properties and propositions. Formulating such minimalist approaches and rejecting the concerns about expressibility will be the main goals of this paper.

To get a first idea about how a minimalist approach to the theory of properties could go, we can note that talk about properties has something in common with talk about truth, and this feature of talk about truth is central for motivating minimalist theories of truth. To see this we merely have to look at what would happen if we gave up talk about properties. A substantial investigation into the nature of properties would be mistaken if there are no properties at all, and if thus talk about properties should be stopped. Not many people have actually endorsed this view, but there are some who played with it. Quine, in "On what there is" was one of them.<sup>2</sup> In a well known passage Quine discusses a view which accepts that even though there are red houses, red sunsets and red roses, there is nothing they have in common. To accept that there is something they have in common would involve accepting quantification over properties or universals. But to deny such quantification would allow for the view that there are no properties such as redness, even though there are red things. According to this view, quantification over properties should be avoided in serious scientific talk, and should be understood as merely a loose and popular way of speaking. Quine seemed to have thought that such a rejection of quantification over properties was a feasible option, one that would avoid the usual metaphysical quarrels. But quantification over properties can't be rejected without paying a stiff price. Quantification over properties is not just something that we need when we

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<sup>2</sup>See [Quine, 1980].

formulate metaphysical theories. It is something we need in ordinary, everyday communication. Quantification over properties increases our expressive power in a way that we rely on in everyday life, not just metaphysics. This is quite analogous to the need we have for talk about truth in everyday life, outside of metaphysical debates about the nature of truth. If we think that what Jones said during the trial is nothing but the truth, but we can't recall what precisely he said we can only communicate our belief about Jones' trial performance by saying

- (1) Everything Jones said during the trial is true.

If we knew what Jones said we could just restate it, case by case, and say that Jones said it, and that this is all he said. But if we can't remember we need a truth predicate to communicate this. Similarly for quantification over properties. Sometimes we need to use quantification over properties to communicate what we want to communicate in everyday situations that have nothing to do with metaphysical debates. I might know that

- (2) There is a property Clinton and Reagan share, but Nixon doesn't have.

but not know what it is. If I knew I could just tell you what it is. I could simply say

- (3) Both Clinton and Reagan like sushi, but Nixon doesn't.

But without knowing what it is I have to use quantification over properties to say what I want to say. Quantification over properties, just like a truth predicate, fulfills an expressive need we have quite independently of debates in metaphysics. We need it in everyday life.

Even though talk about properties has a function in ordinary communication, it is not so clear what we do when we engage in it. In particular, it is not so clear if one can't accept quantification over properties but still reject the substantial metaphysical questions about properties as being based on a mistake. To make this clearer, we should distinguish two general large scale views about what we do when we quantify over, and more generally talk about, properties. The first is that talk about properties is talk about some mind and language independent domain of objects (or entities). These entities are out there, part of reality, independently of our expressing them with predicates. When I say that there is a property such that  $\Phi$  then I say that there exists a certain entity which is a property such that  $\Phi$ . Let's call this view about talk about properties the **externalist view**. The externalist view takes properties to be independent of and external to the language which is

used to talk about them. Properties are out there, waiting to be expressed by predicates, grouping things together independently of any mind or language.

The second way of looking at talk about properties is that it is not talk about some language independent domain of objects, and maybe even not talk about some domain of objects at all. Rather properties are mere *shadows of predicates*, as the metaphor goes, and quantification over them is a device that increases our expressive power in a certain purely logical or metaphysically thin way: quantification over properties is nothing but a generalization over the instances. According to this view such quantified statements will be truth conditionally equivalent to infinite disjunctions or conjunctions of the instances. The expressive power we get from adding quantification over properties to our language is thus equivalent to a certain infinitary expansion of our language. Thus when I say that there is a property such that  $\Phi$  then what I say is truth conditionally equivalent to the infinite disjunction over all the instances in my language. For example, when I utter (2) then my utterance will be truth conditionally equivalent to something like

- (4) Clinton and Reagan are tall, but Nixon isn't, or Clinton and Reagan are slim, but Nixon isn't, or ...

where for every predicate in my language there is a disjunct involving that predicate.<sup>3</sup> In particular, I am not talking about a language independent domain of properties as objects (or entities). The function that such talk has in ordinary communication is supposed to come from the metaphysically thin and purely logical increased expressive power alone. Let's call this view of talk about properties the **internalist view**. The internalist view is understood broadly here, to include both the view that properties are not entities at all, and thus talk about properties is not talk about some domain of entities, (call this the **strict internalist view**) and the view that talk about properties is talk about entities, though these entities are not mind and language independent (call this the **loose internalist view**). Both views hold that quantification over properties is equivalent to disjunctions and conjunctions over all the instances in our language. The difference between loose and strict internalist will be apparent in their different understanding of quantifier free talk about properties. A loose internalist will believe in a sentence like

- (5) Redness is a color.

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<sup>3</sup>This is, of course, only a simplistic first step. The details of this will have to be spelled out by the defender of such a view. We will see more about how such an assignment of truth conditions can go that has this result in the next section.

the phrase “redness” refers to or denotes some entity. A strict internalist will believe that this phrase is not a denoting expression. I would like to sideline the differences between loose and strict internalists for now, and focus on the question whether or not quantification over properties could be truth conditionally equivalent to infinite disjunctions and conjunctions over all the instances in ones own language. The difference between these two versions of internalism will reappear again later.<sup>4</sup> So far the characterization of internalism is only a simplistic first approximation. In the next section we will spell out more of the details, including the relationship between predicates, nominalized predicates, and quantification over properties.

If strict internalism is the correct view about talk about properties then a minimalist approach to the theory of properties follows. Strict internalism does not reject talk about properties, and it accepts such talk as being literally true. However, no substantial theory into the nature of properties is legitimate. Talk about properties is not talk about any entities at all. Thus no substantial investigation into the nature of these entities makes sense. Even though it is true that there is a property that Fido has, there is nothing to be said about what this entity is that Fido has, since there is not entity that he has. We will see more details on how internalism can maintain this, but for now we can say that if internalism were true then a minimalist approach to the theory of properties would be the natural conclusion to draw. Whether or not internalism is true thus seems of great interest for the question whether or not substantial theories of properties are ultimately based on a mistake.

To decide whether or not the internalist or externalist view is correct might seem to be a substantial and difficult issue. It might seem to be quite parallel to the debate about minimalist theories of truth. Is the function of talk about truth captured by this increased expressive strength, and is truth thus more a logical than a metaphysical notion? Or is the increased expressive strength we get from talk about truth merely a side effect of some metaphysically more heavy duty main function it has? This is a difficult issue that has been widely discussed. And similarly, it might seem that to settle the difference between internalist and externalist views about talk about properties one will have to look at a number of difficult and substantial issues. It seems that one has to look at the semantic function of quantifier phrases in certain uses,

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<sup>4</sup>Internalist views have surfaced in the literature as the view that quantification over properties is substitutional quantification. See [Schiffer, 1987], for example, where he discusses an internalist view of properties and propositions, though not under that name. Schiffer briefly discusses inexpressible properties and propositions in footnote 6 on p. 288, where he suggests that some quantifiers over propositions are neither objectual nor substitutional. See also his more recent [Schiffer, 1994] and [Schiffer, 1996].

issues about the relationship between quantification and ontology, the function of talk about properties in ordinary communication, the role of properties in metaphysics, or at some other similarly complex issue. However, internalism can apparently be rejected for a much more direct and simple reason. There is a simple argument that seems to show that internalism is false, and that externalism is the only viable option. This argument has nothing to do with the semantics of quantifier phrases, the function of talk about properties, or the role of properties in metaphysics. It is simply the argument that the internalist view makes a too close connection between predicates and properties. The internalist view seems to be committed to the claim that every property is expressible by a predicate in our language. But that doesn't seem to be right. There are properties that are not expressible in our language, and this is sometimes required for what we say to be true. Sometimes we say that there is a property such that  $\Phi$ , but the only properties that are  $\Phi$  are properties that are not expressible in present day English. Therefore the truth conditions of such statements can't be equivalent to infinite disjunctions or conjunctions of sentences of present day English where a predicate has to be a witness for such a property. Therefore the internalist view is wrong. The externalist view, however, has no such problems. According to it, properties are language independent entities. Some of them might not be expressed by any predicate in present day English. It seems that the externalist view is the only viable option.

I will argue that considerations about inexpressible properties do not refute internalism, but they do show something important about how internalism should be understood more precisely. And once this is made clear we will see that inexpressible properties are compatible with the internalist view of talk about properties. In the first part of this paper I will show that this is so. I will show how it is consistent that there are inexpressible properties and that quantification over properties is expressively equivalent to an infinitary expansion of our language without such quantification (without any additions to the language). If I'm right then internalism is not refuted by there being inexpressible properties. After that I will argue that internalism also is not refuted by certain other, more technical, arguments. This will make internalism a viable option in the debate about the metaphysics of properties, and in the debate about the function of our talk about properties. To decide between internalism and externalism is harder than it might initially seem. Whether or not there are inexpressible properties is also an important end-game consideration in a number of contemporary debates, like the debate about minimalist theories of truth. The relevance of the present consideration to this debate will be discussed after a more refined version of internalism has been for-

mulated. Finally, we will look at how, why and in what sense different languages differ in their expressive strength. Our discussion so far will suggest a hypothesis about this, which we will formulate and discuss.

## 2 The formulation of internalism

In the above section we have roughly characterized internalism and its rival externalism. For the following it will be necessary to give some more details about how internalism is supposed to be understood more precisely. In this section we will thus briefly discuss two important issues about internalism that will clarify the position and contrast it with externalism more clearly than we did above: what view about quantification it is based on and how certain quantified statements are associated with infinitary disjunctions and conjunctions.<sup>5</sup>

### 2.1 Quantification

If internalism is true then quantification over properties is equivalent to infinitary conjunctions or disjunctions with the disjuncts or conjuncts formed within one's own language. This might seem like not much of a substantial claim since it is often the case that quantified statements are truth conditionally equivalent to infinite disjunctions or conjunctions formed within one's own language. Take quantification over natural numbers. When I say

- (6) There is a natural number larger than 100.

then this is in fact equivalent to

- (7) Either 1 is larger than 100 or 2 is larger than 100 or 3 is ...

That such an equivalence obtains can be agreed upon by all sides in a philosophical debate about numbers. What can be controversial, though, is whether the equivalence obtains *de facto* or *de jure*. On the one side of this distinction is the view that it just happens to be the case for natural numbers that we have a term in our language for each one of them. So, as it happens, a quantifier over natural numbers is equivalent to a disjunction or conjunction, *de facto*. This, though has nothing to do with quantification over numbers as such. Such quantifiers range over a domain of entities, and it happens to be the case that we have a term for each of them. On the other side is the view that quantification over natural numbers has the function to generalize over the instances. It is thus no accident that such quantifiers are equivalent to disjunctions and conjunctions over the instances. That is their semantic function, and such an equivalence thus holds *de jure*.

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<sup>5</sup>I am indebted to Ted Sider and Dean Zimmerman for making me make this clearer.



That same options apply to quantification over properties. The internalist view is that such an equivalence does not merely hold as a matter of fact, but that the function of quantification over properties is such that this equivalence is guaranteed. It holds *de jure*, not merely *de facto*. How this can be so will need to be explained, and it will require some story about quantification. One rather implausible option that an internalist has is to claim that all quantification is *de jure* connected to infinitary conjunctions and disjunctions. This would be so, for example, if all quantification is substitutional quantification. But this is not a very plausible view about quantification in general. Some uses of quantifiers clearly seem to have the function to make a claim about a domain of objects out there, no matter how they relate to the terms we have in our language to describe these objects. Some uses of quantifiers are not equivalent to conjunctions and disjunctions formed within our own language (like quantification over real numbers, and many ordinary everyday uses of quantifiers), some are equivalent to such conjunctions and disjunctions *de facto* (like quantification over natural numbers, according to widely held views in the philosophy of mathematics, which we will not challenge here), but according to the internalist, some such equivalences hold *de jure*. But how can that be? How could it be that quantifiers sometimes have a function such that this equivalence is guaranteed, and sometimes apparently have a different function? An internalist view about (talk about) properties or any other domain will have to rely on a view about quantification that explains how this can be so.

This paper is not the place to discuss quantification in any detail, and it is also not the place to provide a positive defense of internalism. In this paper we focus on whether or not internalism is refuted by considerations about expressibility. I would like to briefly outline a view about quantification that I believe to be true, and that I have defended in [Hofweber, 2000] and [Hofweber, 2004]. This view about quantification provides exactly what is required for internalism, about any domain, do get off the ground. It does not guarantee that internalism about any domain is true, but a brief look at it will be helpful for some of the discussion below.

Many expressions in natural languages are semantically underspecified. That is to say, the language does not fully determine what contribution an utterance of that expression makes to the truth conditions of this utterance of which it is a part. There is a variety of different kinds of such underspecification, from simple indexicals, to subtle structural underspecification. A good examples of this is polysemy. The verb "run", for example, makes different contributions to the truth conditions to standard utterances of

(8) He ran the company well.

and

(9) He ran the race well.

These different uses of "run" are not cases of ambiguity. It is not two different words that happen to be pronounced the same way. Rather, it is the same word that can make different contributions to the truth conditions. These two uses of "run" are not unrelated, and it is no accident that one and the same word is used in these two ways.

In [Hofweber, 2004] and [Hofweber, 2000] I argue that ordinary natural language quantifiers are semantically underspecified as well. One and the same quantifier can make different contributions to the truth conditions, and we can see from general needs we have for quantifiers in ordinary, everyday communication that this is so and what these truth conditions are. Natural language quantifiers have at least two readings, corresponding to two general needs we have for them, and two functions that they have. One is the *domain conditions reading*. When quantifiers are used in this reading they make a claim about a domain of objects, whatever it may be. The contribution to the truth conditions that quantifiers make in this reading corresponds to the usual model theoretic semantics for quantifiers. We will also call this reading the *external reading*. In addition quantifiers are used for their inferential role, in their *inferential role reading*. In this reading they make a contribution to the truth conditions that gives them a certain inferential role. In the case of the particular quantifier, for example, it would simply be the inferential role that 'F(t)' implies 'Something is F'. This reading we will also call the *internal reading*. That we have a need for quantifiers in their internal reading, and that the internal and external reading of the quantifiers do not coincide in truth conditions is argued for in the two papers mentioned. I'd like to add that the argument for an internal reading of quantifiers is made not on metaphysical or ontological grounds, but on the basis of general communicative needs in ordinary, everyday communication. I will not repeat these arguments here.

The truth conditions of quantified statements with the quantifier used in its internal reading has to be such that a certain inferential role results. The most direct way this is so is for the statement to be equivalent to an infinitary conjunction or disjunction, formed within one's own language. Thus quantifiers in their internal reading are the kind of quantifiers that an internalist about a certain domain will have to rely on in their formulation of the internalist view. Using this view of quantification one can state an internalist view, for example, that quantifiers over properties are used in their internal reading. This will, of course, have to be defended. How it is to be decided, even

granting the view about quantifiers outlined, whether or not ordinary uses of quantifiers over properties, say, are in the internal or external reading is quite another issue. The view about quantification outlined is, however, quite relevant for our present discussion.

If it is true that quantifiers are sometimes used in an internal, inferential role reading, and sometimes in an external, domain conditions reading then this has two consequences that are of philosophical importance. First, internal quantifiers will in certain respect mirror Meinongean quantifiers, without the ontology of non-existent objects. This point is discussed in some length in [Hofweber, 2000]. For example, a negative existential statement like

(10) The Fountain of Youth does not exist

will imply a quantified statement, with the quantifier used in its internal reading, namely

(11) Something does not exist, namely the Fountain of Youth.

So, in a sense we get quantification over non-existent objects, but we do not get a domain of non-existent objects over which these quantifiers range, as the Meinongians want to have it. The latter would only be so if (11) were true with the quantifier used in its domain conditions reading. But with the quantifier used internally (11) can be literally true without there being a domain of non-existent objects that the quantifier ranges over.

A second consequence of the two readings of the quantifiers is a version of Carnap's internal-external distinction about ontological questions. I discuss this aspect in [Hofweber, 2004]. If quantifiers are semantically underspecified then there are more than one question that can be asked with the words

(12) Are there properties?

According to the view about quantifiers outlined above there are at least two such questions, and this has a number things in common with the position outlined in Carnap's essay "Empiricism, semantics, and ontology", [Carnap, 1956]. Just as Carnap thought, there will really be two questions that can be asked with these words, and one of them is trivial, and the other one is the one that is of interest to metaphysicians. But contrary to Carnap, the questions that interest the metaphysicians are not meaningless. We will thus get a version of a neo-Carnapian approach to ontology that affirms ontology as a meaningful discipline, but holds on to a distinction between internal and external questions about what there is.

A defense of internalism about properties and propositions is a task that is much beyond the scope of this paper. This paper only attempts to investigate whether internalism about properties and propositions can be easily refuted by considerations about expressibility. I hope to establish at the end that this is not so, and to do so it will be useful to have some idea about what an internalist view will look like. There are a variety of different ways one can spell out the background necessary to more precisely formulate an internalist view, and I have only outlined one of them, the one I prefer. Some of this background will be of use later in our discussion, as will a better understanding how we assign infinitary conjunctions and disjunctions to ordinary quantified statements, which we will now turn to.

## 2.2 The internalist truth conditions

The internalist holds that quantification over properties and propositions is merely a logical device for increased expressive power which is metaphysically innocent. Such quantification is supposed to merely generalize over the instances, but not to range over a language independent domain of entities. And as we outlined above, this can be understood as such quantification being truth conditionally equivalent to infinitary conjunctions or disjunctions. How quantified statements get assigned these conjunctions or disjunctions was not discussed so far, and we will briefly do this here, as needed for our discussion below.

To give a precise semantics for a fragment of a natural language is a substantial and difficult task. It involves assigning expressions in that fragment systematically counterparts in a formal language with clearly specified formal semantics. Such an assignment has to meet certain conditions, like preserving inferential relations. We will not attempt to do this here for talk about properties and propositions, nor do most other philosophical discussions of properties or propositions do this. There are a number of difficult obstacles that need to be overcome in doing this, no matter what ultimately one's philosophical views are. For propositions there is obviously the semantics of propositional attitudes, but the difficulties in no way end there. To mention one example, both properties and propositions exhibit the so-called substitution failure. There is a clear difference between

(13) Lance feared that Jan will attack.

and

(14) Lance feared the proposition that Jan will attack.

as well as

(15) Being a philosopher is fun.

and

(16) The property of being a philosopher is fun.

How can we explain this if "being a philosopher" just stands for the property of being a philosopher?<sup>6</sup> We will not attempt to solve any of the hard problems in this section, but merely outline how quantification over properties and propositions can be assigned infinite disjunctions or conjunctions as their truth conditions.

Let's look at the simpler case of propositions first. We will take recourse to the notion of a (grammatical) instantiation of a quantified statement. So, for a statement like

(17) He fears something I believe.

an instantiation is

(18) He fears that p and I believe that p.

To make this notion precise one will have to address a number of issues, for example about the scope of quantifiers, a task not unique to the internalist. Secondly, we take recourse to the notion of a (grammatical) sentence. Finally, we assign to a quantified statement infinitary sentences as follows:<sup>7</sup> Suppose that 'S[something]' is a statement with a particular quantifier over propositions, and 'S[that p]' is an instantiation of the former. Let ' $\bigvee_p$  S[that p]' stand for the disjunction over all instances of 'S[that p]', whereby for every sentence of our language there is one instance of 'S[that p]', replacing 'p' with that sentence. Equivalently, for present purposes, bind 'p' with a (particular) substitutional quantifier with the substitution class being all the sentences in our language.

The case of quantification over properties is a little more complicated since quantification over properties can apparently occur in subject as well as in predicate position, and there is an issue about higher order predication. Whether or not there ever is quantification into a predicate position is controversial. Possible examples are sentences like

(19) He is something I am not (namely rich).

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<sup>6</sup>See [Bach, 1997] and [King, ] for a discussion of such examples for the case of propositions.

<sup>7</sup>I will only describe the case of the particular quantifier. The universal quantifier is analogous. I will not discuss in this paper how to extend it to a treatment of generalized quantifiers. This brings in further issues that are not central for our main discussion, in particular the role of formal models in semantics.

It is not clear whether this is quantification into predicate position since the 'is' of the predicate is still present. In any case, an internalist can specify the truth conditions of such utterances quite directly, again by taking recourse to the notion of an instantiation of such a quantifier, and that of a predicate of our language. In this case an instance will be something like

(20) He is F and I am not F.

The truth conditions of the quantified statement are then simply the disjunction over all the instances formed with predicates in our own language. Thus in this case it would be ' $\bigvee_P$  (He is P and I am not P)'.<sup>8</sup>

Quantification over properties, however, often is not of this kind. Often the instances of quantifiers over properties do not directly involve predicates, but expressions like "the property of being F" or "being F". One example would be

(21) There is a mental property which is not a physical property (namely the property of feeling pain).

Here the instances would be something like

(22) Being F is a mental property and being F is not a physical property.

We will have to expand our account to include such cases of quantification over properties as well. This can be done quite directly by exploiting the connection between a predicate, like 'is F' and its nominalization 'being F' or 'the property of being F'. In cases where a quantifier over properties is a quantifier into a subject position we still form a conjunction (or disjunction) where there is a conjunct corresponding to each predicate, but now the predicate appears in its nominalized form. Let ' $[_{nom}F]$ ' stand for the nominalization of the predicate 'F'. Then the infinitary disjunction assigned to a quantified statement that quantifies into subject position is the disjunction of all the instances such that there is an instance for every predicate in its nominalized form. In the case of 'Some property is G' it is the disjunction ' $\bigvee_P([_{nom}P] \text{ is } G)$ '.

One final issue to briefly address before we can return to our main discussion is the issue of higher order predication. Since properties themselves can have properties there is a well known division in the

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<sup>8</sup>Here the notation is an adoption of the above one we used for propositions above. 'P' here is a predicate, whereas above 'p' was a sentence. The other changes for the case of properties are analogous.

theory of properties between those who take a typed and those who take a type free approach. For the former, all properties implicitly come with a type, and every quantifier over properties only ranges over some type of properties or other. In cases of higher order predication properties of higher type are predicated of properties of lower type. There are many options one has in spelling this out in some more detail, and we will not get into them here. For a type-free approach one denies that properties come in types and claims that quantifiers over properties range over all of them. In predication properties can be applied to all others, even to themselves, in principle. To do this the predicate occurs nominalized in the subject position, and regularly in the predicate position, as in

(23) Being a property is a property.

In our notation we can write self-application as

(24)  $[_{nom}P]$  is P

or

(25)  $P([_{nom}P])$

We will discuss this topic again later in the paper, in connection with the paradoxes. An internalist has both of these options available as well, and the hard work that needs to be done in a typed approach, like assigning types to particular occurrences of quantifiers, can be carried over to a typed internalist approach as well. Instead of types being assigned to properties directly they will be assigned to predicates, and disjunctions and conjunctions will be formed involving only predicates of the appropriate type. In a type free version this will not be necessary. We will return to this later.

With the internalist truth conditions outlined above we can now see in outline how an internalist would assign infinite disjunctions and conjunctions to a large variety of quantified statements. For example

(26) There is something we have in common.

will by the above account be equivalent to the disjunction over the instances formed within our language.<sup>9</sup> In this case it is quantification into subject position, and thus we get

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<sup>9</sup>One further issue that will have to be addressed is quantifier domain restriction. I dare say here that both the internalist and the externalist have the same or at least analogous options available, whether or not quantifier domain restriction is properly understood as a semantic phenomenon. A discussion of this and a survey of the options would take us too far off course, however, so we will not attempt to do this here.

(27)  $\bigvee_P$  (we have  $[_{nom} P]$  in common)

which is equivalent to

(28)  $\bigvee_P$  (you have  $[_{nom} P]$  and I have  $[_{nom} P]$ )

which in turn, granting the equivalence between 'x has the property of being P' and 'x is P', is equivalent to

(29)  $\bigvee_P$  (you are P and I am P)

Whether or not a predicate occurs nominalized or regular in a disjunction is determined by the grammar of the sentences in which it occurs. To avoid confusion, but at the price of extra notation, we will make this explicit in the following, using the above notation.

Now it is time to return to our main discussion: is internalism easily refuted by considerations about inexpressible properties? Since an internalist claims that all such disjunctions are formed using predicates from our own language, it would seem that internalism is refuted by there being inexpressible properties. We will now look at this in detail.

### 3 Internalism and the inductive argument

#### 3.1 Inexpressible properties and the inductive argument

I take it that we all believe that there are properties inexpressible in English. It is, however, not so clear why we accept it. After all:

1. For a property to be inexpressible in a language means that no predicate (however complex) expresses it. Simply because there is no single word in a certain language for a certain property doesn't mean it isn't expressible in that language.
2. We can't be persuaded that there are properties inexpressible in English by example. One can't say in English without contradiction that the property of being  $\Phi$  isn't expressible in English.

So, why again do we believe that there are inexpressible properties?

There are a number of different arguments for there being inexpressible properties. We will look at several of them in this paper. The simplest and most important argument is the following:

Even though we can't give an example of a property inexpressible in English, we can give examples of properties not expressible in older, apparently weaker languages. For example, the property of



tasting better than Diet Pepsi is not expressible in Ancient Greek. So, there are properties expressible in English, but not in Ancient Greek. In addition, we have no reason to believe that English is the final word when it comes to expressing properties. We can expect that future languages will have the same relation to English that English has to Ancient Greek. Thus, we can expect that there are properties inexpressible in English, but expressible in future languages. In short, there are properties not expressible in present day English.

Let's call this argument for inexpressible properties **the inductive argument**. It is a powerful argument. The main task for the next few pages will be see whether or not the inductive argument refutes internalism about talk about properties.

Internalism seems to be committed to a view that might be called **expressive chauvinism**, the view that our present language is somehow better than other languages when it comes to what can be expressed. Our present language can express everything there is to express, whereas other languages can't express everything. But expressive chauvinism has to be rejected. Whatever reason we have to believe that our language is expressively better than other languages, it will make it plausible that some other (possibly future) language will be better in that respect than our present language. Internalism has to free itself from expressive chauvinism if it wants to be a contender in the debate about properties.

### 3.2 Some distinctions

What does it mean for a property to be expressible in English? Well, that there is a predicate of English that expresses it. But that could mean at least two things. On the one hand, it could mean that there is a predicate of English that expresses this property in the language English. On the other hand, it could mean that there is a predicate of English such that a speaker of English expresses this property with an utterance of that predicate. Which one of these we take will make a difference for the issue under discussion. To illustrate the difference, consider:

(30) being that guy's brother

This predicate does not express a property simpliciter, it only expresses one on a particular occasion of an utterance of it, that is, in a particular context. In different contexts of utterance it will express different properties. However,

(31) being Fred's brother

expresses a property independent of particular utterances, or better, expresses the same one in each utterance.<sup>10</sup> If “that guy” in an utterance of (30) refers to Fred then this utterance of (30) will express the same property as any utterance of (31) will. However, there might be contexts in which an utterance of (30) will express a property that can’t be expressed by an “eternal” predicate like (31).

So, when we ask whether or not a property P is expressible in a language  $\mathcal{L}$  we could either ask

1. whether or not there is a predicate  $\Phi$  (of  $\mathcal{L}$ ) such that in every context C, an utterance of  $\Phi$  (by a speaker of  $\mathcal{L}$ ) in C expresses P, or
2. whether or not there is a predicate  $\Phi$  (of  $\mathcal{L}$ ) and a context C such that an utterance of  $\Phi$  (by a speaker of  $\mathcal{L}$ ) in C expresses P.

Let’s call expressible in the first sense **language expressible** and expressible in the second sense **loosely speaker expressible**. The latter is called *loosely* speaker expressible because it only requires for there to be a context such that an utterance of  $\Phi$  in that context by a speaker of  $\mathcal{L}$  would express P. Any context is allowed here, whether or not speakers of that language actually ever are in such contexts. We can distinguish this from what is **factually speaker expressible**. Here we allow only contexts that speakers of that language actually are in.<sup>11</sup> Let me illustrate.

Ancient Greek does not allow for the expression of the property

(32) tasting better than Diet Pepsi

in the sense of being language expressible. We can assume that. However, it seems that it is expressible in Ancient Greek in the sense of being loosely speaker expressible. In the context where there is Diet Pepsi right in front of a speaker of Ancient Greek he could simply utter the Ancient Greek equivalent of

(33) tasting better than this

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<sup>10</sup>I assume that “Fred” and “brother” are disambiguated, i.e. with respect to whether we talk about a monk or a sibling, and whether it’s Fred Dretske, Fred Astaire, Fred Flintstone, or any other Fred.

<sup>11</sup>To simplify, we consider someone only as a speaker of their native language. This is also implicitly assumed in the inductive argument. We can also ignore complicated issues about identities of languages over time. For present purposes it does not matter what the details are about how long and under what conditions a language continues to be the same. Intermediate notions between factually speaker expressible and loosely speaker expressible can also be formulated depending on how strictly one takes “actually”. This is of no consequence for our discussion, though.

while demonstratively referring to Diet Pepsi. But since there was no Diet Pepsi around during the time when Ancient Greek was a living language, this context is not allowed when considering the question whether or not this property is factually speaker expressible. In this case, it seems that the property is not factually speaker expressible in Ancient Greek, just as it is not language expressible in Ancient Greek.

Being language expressible implies being factually speaker expressible, which implies being loosely speaker expressible, and none of these implications can be reversed (or so we can concede for now).

What all this shows is that both the inductive argument and the above account of the internalist view of talk about properties was too simplistic. In the latter it was simply assumed that contextual contributions to content do not occur and that the truth conditions of talk about properties can simply be given by infinite disjunctions and conjunctions of eternal sentences of the language in question. But that's not always so. Sometimes predicates express properties in some contexts that can't be expressed with eternal predicates. To say this is not to deny that properties are shadows of predicates, just that they are shadows of eternal predicates. Let's call a version of internalism about talk about properties **extreme internalism** if it claims that quantification over properties is equivalent to infinite disjunctions and conjunctions formed with eternal predicates. And let's call a form of internalism **moderate internalism** if it accommodates contextual contributions to content. What we have seen so far is that extreme internalism can't be right. An internalist will have to endorse moderate internalism. But how is this form of internalism supposed to be understood? How can internalists accommodate contextual contributions to what is expressed by a predicate while at the same time holding that quantification over properties is merely a logical device for increased expressive power?

### 3.3 The problem

Here is the problem: even if an utterance of a sentence with demonstratives in Ancient Greek in the right context would express the property of tasting better than Diet Pepsi, it is quite a different story to extend this to an internalist account of the truth conditions of quantification over properties. In fact, it seems that this can't be done.

Let's suppose, for the sake of the argument, that the only property of beer that interests Fred is that it tastes better than Diet Pepsi. So

(34) There is a property of beer that interests Fred.

An internalist account of quantification over properties has to get this

to come out true. But it seems that this requires that there is a disjunct in the infinite disjunction that corresponds to

(35) tasting better than Diet Pepsi

This is no problem for our language, English. But if the disjunctions have to be formed in Ancient Greek then it doesn't seem to work. To be sure, and as we have seen above, the property of tasting better than Diet Pepsi is loosely speaker expressible in Ancient Greek. But how can this be used in the infinite disjunction? After all, merely having

(36) tasting better than this

as part of one of the disjunctions won't do unless the demonstrative refers to Diet Pepsi. But how could it? The referent of a demonstrative is fixed at least partly by the intentions of the speaker using it. And in an utterance of (34) there are no such intentions that could back this up. For one, one can utter (34) while having no idea what property it is that interests Fred. And secondly, speakers of Ancient Greek will have no idea what Diet Pepsi is, nor will they have any around to demonstratively refer to. So, there is no way such speakers can fix the referent of such a demonstrative to be Diet Pepsi. Thus the truth conditions of quantified statements can't be equivalent to infinite disjunctions and conjunctions over the instances, even if the instances may contain demonstratives. Thus it seems that internalism is refuted, after all, even given the above distinctions.

### 3.4 The solution

An internalist claims that quantification over properties is equivalent to infinite disjunctions and conjunctions formulated using only the basic vocabulary of the language on which the quantification occurs, plus possibly extra logical tools. This would make quantification over properties merely a generalization over the instances. And it contrasts internalism with externalism, which claims that such quantification ranges over some mind and language independent domain of entities. The above considerations suggest that extreme internalism should be rejected. Extreme internalism is in trouble since not every object is referred to with an eternal term, and thus what properties can be expressed with eternal predicates is strictly less than what properties are expressed with context sensitive predicates, namely in cases where a demonstrative refers to an object that isn't the referent of an eternal term. These considerations show that what objects there are matters for what properties and propositions there are, not merely what objects are referred to with eternal terms. The case of demonstrative reference to an object that isn't the referent of any eternal term illustrates this. We should however not give demonstrative reference a too central role

in this. What objects there are matters, not what objects can be referred to, even with a demonstrative. So, if there are any objects that can't be referred to with a demonstrative, for whatever reason, these objects would nonetheless be relevant for what properties there are. We thus have to take 'speaker expressible' liberally here. Any object has to be able to be contributed in a context. Context sensitive expressions can have terms in them that in a context can stand for an object. Demonstrative reference is one way in which this can happen, but we will more liberally consider the notion of a context contributing any object as the value of a 'demonstrative' or context dependent singular term. Thus 'loose speaker expressible' has to be understood as expressible with a predicate where context may contribute any object whatsoever as the value of a 'demonstrative' or otherwise context sensitive singular term. This will properly accommodate the above insight that what objects there are matters for what properties and propositions there are. So, an internalist will have to claim that quantification over properties is a generalization over all the instances of context sensitive predicates, with demonstratives being allowed to stand for any objects whatsoever, but without requiring referential intentions or the like on the part of the speakers. Let's look at this more closely and with the help of artificial languages to clarify the situation.

Let's assume that the truth conditions of a fragment of a natural language without quantification over properties is correctly modeled with a certain formal language  $L$ . Adding quantification over properties to that language should give us an infinitary expansion of  $L$ , according to the internalist. Now, to accommodate demonstratives, we can do the following. Add infinitely many new variables to  $L$ , which model the demonstratives. Build up formulas as usual, but don't allow ordinary quantifiers to bind these new variables. To accommodate talk about properties, we represent the truth conditions of quantification over properties with an infinite disjunction or conjunction as before, with one difference. Whenever we form an infinite disjunction or conjunction we also existentially or universally (respectively) bind all these new variables. Thus, now we do not simply represent "there is a property such that  $\Phi$ " as the infinite disjunction over all the instances " $\Phi([nom P]$ ", i.e. as " $\bigvee_P \Phi([nom P])$ ". Now we take this disjunction and add existential quantification on the outside binding all the new variables. So, we now represent "there is a property such that  $\Phi$ " as " $\exists v_1, v_2, \dots \bigvee_P \Phi([nom P])$ ".

The new free variables play the role of the demonstratives in this account, and the quantifier binding them plays the role of the arbitrary contexts that we allow in loose speaker expressibility. For example, the disjunction that spells out the truth conditions of (34) will contain a disjunct corresponding to

(37) tasting better than  $v_i$

Now there will be an existential quantifier that binds  $v_i$  from the outside. Since it will range over Diet Pepsis this disjunct will be true, and thus the disjunction will be true. And this will be so independently of there being a referring expression that refers to Diet Pepsi in the language in question

However, there is no finite upper bound on how many of these new variables will occur in these disjunctions. Since we allow, and have to allow, every predicate to occur in the disjunction, we can't give a finite upper bound on how many variables can occur in these predicates. So, in the infinite disjunction there will be infinitely many variables that have to be bound, all at once, from the outside. But this can be done. We just have to go to a higher infinitary logic. Not only do we need infinite disjunctions and conjunctions, we need quantification over infinitely many variables. Before we only used a small fragment of what is called  $L_{\omega_1, \omega}$ , now we use a small fragment of  $L_{\omega_1, \omega_1}$ . This latter logic also allows for quantification over countably many variables.<sup>12</sup> In both cases we expand our original base language by only logical notions and no other non-logical vocabulary.

Given this new model of talk about properties we have the following:

- Properties are shadows of predicates, but not shadows of eternal predicates.
- Talk about properties gives rise to an infinitary expansion of the original language, but not just to a small fragment of  $L_{\omega_1, \omega}$ , but to a small fragment of  $L_{\omega_1, \omega_1}$ .

So, the property of tasting better than Diet Pepsi is not expressible in Ancient Greek in the sense of language expressible nor in the sense of factually speaker expressible. It is however, expressible in Ancient Greek in the sense of loosely speaker expressible. And by the inductive argument we get that we have reason to believe that there are properties that are not expressible in English, but we get that only when 'expressible' is understood in the sense of either language expressible or

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<sup>12</sup> $L_{\omega_1, \omega}$  is an infinitary logic that allows conjunctions and disjunctions over countable sets of formulas, but only quantification over finite sets of variables (as in regular first or higher order logic).  $L_{\omega_1, \omega_1}$  allows for both conjunctions and disjunctions over countable sets of formulas, plus quantification over countable sets of variables. The basic language is usually the one of first order logic, but one can define infinitary expansions of other languages just as well. See [Keisler, 1971] and [Barwise, 1975] for much more on this. In our case here we only use very small fragments of these logics. All these fragments will be finitely representable, for example, and smaller than the smallest fragments studied in [Barwise, 1975] or [Keisler, 1971].

factually speaker expressible. However, according to the present version of internalism, quantification over properties has to be understood as being based on what is loosely speaker expressible with predicates. Therefore it will be true that

(38) There are properties that are not expressible in English.

if expressible is understood as being language expressible or factually speaker expressible, but false, according to the internalist, if it is understood as being loosely speaker expressible.

Internalism is not easily refuted with the inductive argument. Once we distinguish between extreme and moderate internalism, and between different notions of expressibility, we can see that moderate internalism is not refuted by the inductive argument. A moderate internalist should endorse the inductive argument as showing something interesting and important about a difference about what is language or factually speaker expressible in different languages. We will see more about this in section 6 below. But before that we will have to have a closer look at whether or not other arguments using considerations about expressibility refute internalism. We can grant that extreme internalism is refuted by the inductive argument, though I have argued that moderate internalism isn't refuted by it. We will now have to see whether or not moderate internalism can be refuted as well, and thus 'internalism' will mean 'moderate internalism' from now on.

## 4 Further arguments against internalism using expressibility considerations

We have looked at the inductive argument above, and seen that endorsing it poses no threat to internalism about talk about properties, rightly understood. The inductive argument, however, is not the only argument that tries to refute internalism using inexpressible properties. In this section we will look at several other arguments for this conclusion, and we will see that they are no problem for internalism either. To be sure, I can't claim to deal with all possible such arguments, but once we see that the arguments discussed in the present section are no problem for internalism it should be plausible that internalism is in fact not threatened by issues about inexpressible properties. After that we will look at some positive and more large scale issues.

I will divide the further arguments against internalism from inexpressible properties into several groups: First, arguments that are modifications of the inductive argument. Secondly, arguments that try to establish that there are strictly more properties than expressible

properties. These arguments thus try to establish that the cardinality of the set of properties is larger than the cardinality of the set of expressible properties. Thirdly, we will look at arguments that internalism is in conflict with some lessons that have to be drawn from the semantic paradoxes. After that we will look at an argument trying to establish that we can "diagonalize out" of the expressible properties. Finally, we will look at arguments that take recourse to modal considerations.

#### 4.1 Modified inductive arguments

We have to see what reason one might have for believing that there are properties that aren't loosely speaker expressible. And, since this again can't be motivated by giving an example of such a property, one way to go will be a version of the inductive argument, but this time an inductive argument for there being properties that are not loosely speaker expressible. And to start such an argument we have to point to a property that is loosely speaker expressible in English, but not loosely speaker expressible in, say, Ancient Greek. What could that be? The best candidates for such a properties are ones that relate to an area where there is a substantial difference between Ancient Greece and us, like scientific understanding of the world. A tricky example is

(39) being a quark

It might seem that it isn't even loosely speaker expressible in Ancient Greek. Whatever one's prima facie intuitions about this are, we should note that since this property is (language) expressible in present day English, but presumably not in English of 1600 A.D., something must have happened in the recent history of English that allowed for the language expressibility of this property. So, how did we come to be able to express it? That certainly is a hard question, related to some difficult issues in the philosophy of science. Two possibilities come to mind, though, namely:

- "being a quark" is a theoretical predicate of physics. It is at least in part implicitly defined by the physical theory that uses it. Thus we can express it because we have the theory.
- We can express the property of being a quark because we have been in contact with observable phenomena that are caused by quarks, like effects they have on some measuring instrument.

If either one of these is the correct account then there is no problem for the internalist. The reason is simply the following. If the first is correct then the problem of expressing the property of being a quark reduces to expressing the theory that implicitly defines "being a quark", plus



making the implicit definition explicit. Simply put, the property of being a quark is the property of being such that the theory truly describes you. Thus the problem is pushed back to the properties used in the implicit definition of “being a quark”, that is in the formulation of the theory that implicitly defines it. In general, though, if the apparent increased expressive power of new theoretical concepts comes from their implicit definition in scientific theories (or from mixing those with the above second point) then internalism is not in trouble.

If the second possibility is the right one then the increased expressive power does come from being in contact with more objects. If we introduced “being a quark” as

- (40) being the kind of thing that causes these effects on the measuring instrument

or something along this line then being a quark is loosely speaker expressible in older languages, though not language expressible. This case thus essentially reduces to the case of the (standard) inductive argument.

To be sure, these are only rough outlines of how this can work. How such predicates work in general is very difficult to say. We should, however, keep the fact in mind that something must have happened in the last few hundred years that made the change from speakers of English not being able to (language) express this property (at least not with a simple predicate) to their being able to (language) express it with just a few words. One easy explanation of how this might have happened is that speakers were able to express the property before, after all, either with a complex eternal predicate, or with some non-eternal predicate in the right context. If this is so then there is no puzzle how we can now express it with a few simple words: we just introduced a word to stand for a property that we could express already, though only with a complex predicate, or only in special circumstances. But if this isn't so, what might have happened that made the difference? One answer is holism, and it is hard to see what another answer might be. We will get more into the details of this issue at the end of this paper.

## 4.2 Cardinality considerations

The second strategy to argue against internalism using considerations about inexpressible properties takes recourse to cardinality considerations. Such arguments try to establish that the set of all properties is strictly larger than the set of all expressible properties. I would like to divide these arguments into two groups. The first group takes recourse to a principle that connects how many objects there are with how many properties there are, and argues that since there are a certain number of

objects there are more properties than expressible properties. The second group of arguments takes recourse to “closure” principles. These arguments are based on that what properties there are is closed under some general principle. Using such principles, the argument continues, we can see that there are more properties than there are expressible properties.<sup>13</sup> Let’s look at these in turn.

#### 4.2.1 Arguments from objects

Here is a paradigmatic argument from objects against internalism:

Our language has only a finite base vocabulary, and only finite combinations of it are allowed to form predicates that express properties. Thus overall we can form countably many predicates. But there are uncountably many properties. There are, for example, uncountably many real numbers. And for every real number there is the property of being larger than that real number, or other properties of this kind. Thus there are uncountably many properties. So, internalism has to be false.

This is a *prima facie* very plausible argument. But once we take into account the distinctions that were drawn above we can quite easily see that it is flawed. The argument would work against extreme internalism, which holds that properties are shadows of eternal predicates. But, of course, this is not the form of internalism we are discussing now. Internalism has to be understood as moderate internalism, which holds that properties are shadows of predicates, though not of eternal predicates.<sup>14</sup> The truth conditions of quantification over properties is understood as being modeled by infinitary disjunctions as well as infinitary first order quantification. In particular, what is in the domain of the first order quantifiers will matter for the truth conditions of quantification over properties.

And once we consider this formulation of internalism we see that the above argument provides no problem for it. If we grant, as is presupposed in the above argument, that real numbers are objects in

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<sup>13</sup>Arguments from closure principle don’t necessarily attempt to reach the conclusion that the cardinality of the set of expressible properties is smaller than the cardinality of the set of properties. Some of them might only try to establish that the set of expressible properties is a proper subset of the set of all properties. In the relevant section below we will mainly discuss closure principles that, if they were true, would lead to a cardinality argument. Thus arguments using closure principles are dealt with under the heading of cardinality arguments here. In section 4.4 below we will discuss additional arguments that the expressible properties form a proper subset of all the properties which are not cardinality arguments.

<sup>14</sup>See page 19 for the distinction between extreme and moderate internalism.

the domain of first order quantification then it will be true according to moderate internalism that

- (41) For every real number there is a property which is the property of being larger than that real number.

According to internalism the truth conditions of this sentence can be spelled out as (in semi-formal notation):

$$(42) \forall r \exists \vec{v} \bigvee_P ([_{nom} P(v_i)] = \text{being larger than } r)$$

And (42) is true, as can be seen as follows. Fix an arbitrary number  $r$ . One of the disjuncts in the disjunction will be

$$(43) (\text{being larger than } v_i = \text{being larger than } r)$$

with variable  $v_i$  bound from the outside by an (infinitary) existential quantifier. Since this variable ranges over real numbers, in particular number  $r$ , there is a value to the variable that makes this disjunct true, namely  $r$ . So, (42) is true.

Real numbers, as object of the domain of first order quantification, can be the values of the variables that occur in the infinitary disjunctions, which are bound from the outside by the (infinitary) existential quantifiers. So, the more objects there are in the domain of first order quantification, the more properties are loosely expressible, and the stronger is quantification over properties. The arguments from objects thus rely on a version of internalism that is based on using eternal predicates as the basis of expressibility. They do not affect the present version of internalism.

#### 4.2.2 Arguments from “closure principles”

A second argument against internalism about properties is based on considerations that properties are closed under certain principles. In the simplest form these are principles of the kind that for any two properties there is a property which is the conjunction of the two. So, if being a dog is a property, and being a cat is a property, then being a dog and a cat is also a property. This is, of course, a very innocent form of a closure principle, but others are not so innocent. To argue against internalism using closure principles one will have to find a closure principle C such that

- (i) we have good reason to believe that properties are closed under principle C, and
- (ii) properties being closed under C is incompatible with internalism about properties.

We will in this section look at whether or not there are any good arguments of this kind.

A principle that seems to meet condition (ii) is the following:

(P1) For every set  $S$  of properties there is a property of having all the properties in  $S$ .

(P1) seems to be incompatible with internalism because of the following argument:

Let's agree that how many properties are expressible depends on what objects there are in the domain of first order quantification. So, if there are  $\kappa$  many objects in this domain, and if the base language is countable then there will be  $\kappa$  many properties that can be loosely speaker expressed.<sup>15</sup> However, there are more than  $\kappa$  many properties. Since what properties there are is closed under principle (P1) and since there are  $2^\kappa$  many sets of loosely speaker expressible properties there are at least  $2^\kappa$  many properties. For every set of loosely speaker expressible properties there is a property of having all these properties, and for every such set this resulting property is different. Thus there are at least  $2^\kappa$  many properties.

This objection has several problems. First, but not most importantly, the argument begs the question against the strict internalist, who thinks that properties are not objects or entities, and are thus not available to be collected into sets. Sets of properties can only be built if properties exist as entities. But according to strict internalism, properties are not entities.<sup>16</sup> Thus to talk about sets of properties is to assume that properties are entities, which is one of the issues at stake here. Secondly, and more importantly, if we allow sets of properties, and if we accept sets in general, then these sets will be in the domain of the first order quantifiers. In particular, the assumption in the above argument that there are only  $\kappa$  many objects in the domain of first order quantification is false if there are also  $2^\kappa$  many sets of properties, or sets of any kind. Thus the above argument really is a version of an argument from objects, with the difference that it uses sets, rather than real numbers. Such arguments, we have seen, should not bother the moderate internalist. Cardinality arguments using sets of properties are thus no threat to moderate internalism.

One might attempt, though, to give a related argument that does not rely on using sets. An opponent of internalism might argue that

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<sup>15</sup> $\kappa$  is an infinite cardinal number. If there are only finitely many objects then there will be countably many expressible properties.

<sup>16</sup>According to the other kind, loose internalism, properties are language dependent entities.

there are certain principles we should accept that tell us that properties are closed under certain operations, without ever taking recourse to sets of properties. A simple example of this would be the claim that properties are closed under conjunction. This can be formulated quite innocently as

- (44) If  $P$  is a property and if  $Q$  is a property then  $P$  and  $Q$  is a property.

Some principles like this, it seems, will have to be accepted by anyone, and their acceptance does not beg any question against internalism or externalism.<sup>17</sup> Such principles take the form of a schema that claims that if there are certain properties then there are also other properties. Can we specify a schema of this kind that would refute internalism?

No. Every such schema that we can specify is compatible with internalism. In fact, it is implied by internalism.<sup>18</sup> Expressible properties are closed under expressible closure conditions. Whatever the right hand side of a closure condition would say, it would give us a predicate for expressing the relevant property. If the schematic letters stand for expressible properties then we will have predicates that express them, and the expressible closure condition will give us a recipe to construct a new predicate that expressed the new property which the condition claims there is. Thus any example of a schema that expresses a closure conditions is compatible with internalism.

I conclude that cardinality considerations do not refute internalism, even though they on the face of it seem to be a serious problem for internalism. Cardinality considerations would work against a simple form of internalism, where only eternal predicates are allowed to express properties, or where expressibility is understood as language expressibility. Moderate internalism is not threatened by these problems.

### 4.3 Paradoxes

One quite different argument against internalism doesn't claim that internalism does not accommodate all the properties, but rather claims that internalism allows for too many properties. This might be especially striking because of what we have seen in the above section.

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<sup>17</sup>Some such principles might beg the question against some forms of property elitism to be discussed below.

<sup>18</sup>Properly formulated, of course. In our case it would be the universal closure of

- (45) If  $[nomP]$  is a property and if  $[nomQ]$  is a property then  $[[nomP] \text{ and } [nomQ]]$  is a property.

Are properties really closed under all these expressible closure conditions? There is, of course, *property elitism*, the metaphysical view that there are only few and only very special properties, which disagrees with this.<sup>19</sup> According to one version of property elitism, for example, properties are not closed under disjunctions, and in fact there are no disjunctive properties at all. Such views, however, rely on heavy duty and controversial metaphysics. Simply because internalism isn't compatible with property elitism isn't an argument against it. Internalism, as a view about the metaphysics of properties, is naturally incompatible with several other competing views about the metaphysics of properties. There are, however, other arguments against internalism that argue that internalism admits too many properties. These arguments are not based on metaphysical considerations, but rather on the paradoxes. What these arguments try to establish is that not every predicate expresses a property. A simple argument of this kind goes as follows:

Even though we can't give an example of a property that isn't expressed by any predicate (in our language), we can give an example of a predicate that doesn't express a property. It is the predicate:

(AP) "does not apply to itself"

If this predicate would express a property,  $P$ , then we can ask whether or not  $P$  applies to itself, i.e. whether or not  $P(P)$  holds. And we can see that  $P$  does apply to itself iff it does not apply to itself. Contradiction. Thus there can be no property that is expressed by this predicate.

It is a not uncommon reaction to conclude that this paradox shows that there is no property that is expressed by (AP). In particular, there are predicates that express no property, contrary to internalism. However, this reaction is premature.

The above argument relies on that the lesson to draw from this paradox is that there is no property expressed by this predicate. This is problematic for several reasons. For one, it seems true to say that there is a property that seems to lead to paradox, or that puzzled logicians for decades, namely the property of not applying to oneself. But more importantly, this account of denying that there is such a property doesn't really solve the paradox. The paradox can be formulated in such a way that it doesn't even take recourse to properties. Thus trying to solve the paradoxes by adopting a certain view in ontology, that certain properties do not exist, does not get at the heart of the

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<sup>19</sup>The classic example is Armstrong in, for example, [Armstrong, 1978] and [Armstrong, 1989], and others.

problem, and provides only an *ad hoc* way to block a certain formulation of the paradox, but not a solution to the paradox. We can also formulate the above paradox using only predicates, and not properties. Here is the modified version:

Predicates are satisfied by objects. So, “is a dog” is satisfied by Fido. Predicates can also be satisfied by predicates. For example, “is short” is satisfied by “is short”. Now, call a predicate “heterological” if it does not satisfy itself. So, “is short” does not satisfy “heterological”. Does “heterological” satisfy “heterological”? By the usual reasoning: it does iff it doesn’t. Paradox.<sup>20</sup>

The above version of the paradox can’t be resolved by claiming that certain properties don’t exist, or that certain predicates don’t express properties, since we never took recourse to properties. In particular, no one would conclude from this paradox that there is no such predicate as “heterological”. So, if denying that there is such a property as not applying to oneself doesn’t solve the paradox, but only blocks the particular formulation of the paradox, then this doesn’t give us a reason to believe that there is no such property. Denying that “doesn’t apply to itself” expresses a property doesn’t solve the paradoxes. It can at most require us to give the paradox a slightly different formulation.

We have seen that these paradoxes don’t require an internalist to claim that some predicates don’t express a property. But an internalist does not have to take this route. An internalist will have to spell out anyways what will count as a predicate in making more precise what the infinite disjunctions and conjunctions will look like. It is an option for an internalist to spell this out in such a way that “does not apply to itself” is not a predicate. I don’t want to pursue this here, however.

How the paradoxes can be solved, if at all, is of course a completely different story. We only need to note here that internalism and externalism don’t seem to be importantly different in that respect. In particular, paradoxes are no more in conflict with internalism as they are in conflict with anything else.

#### 4.4 Diagonalization

One further more or less technical argument has to be dealt with. It uses the technique of diagonalization, and aims to show that no language can express all properties, since by diagonalization we can construct a property that wasn’t expressible in that given language.<sup>21</sup>

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<sup>20</sup>This is, of course, Grelling’s paradox.

<sup>21</sup>These arguments are called diagonal argument since they use the “diagonal”  $R(x,x)$  of a binary relation  $R(x,y)$ .

This argument tries to show that the properties expressible in a given language are a proper subset of all the properties, but it doesn't try to do this using a cardinality consideration. There are many ways in which this argument can be formulated more precisely. The details of the formulation aren't important for our present discussion, as we will see. I'll give an example of an argument using diagonalization that aims to show that internalism has to be false. Here is one:

In every language there will be some property not expressible in that language. Suppose you have some language  $L$ , and let's assume that  $L$  can talk about its own syntax, say via some coding. We'll see that there is a property not expressible in  $L$ . Consider a language  $L^*$  which extends  $L$  in the following way.  $L^*$  has a two place predicate  $SAT_L$  such that  $SAT_L(x, y)$  holds just in case  $y$  is a code for the formula  $\Phi$  of  $L$  and  $\Phi$  holds of  $x$ . Now, take the property expressed by  $\neg SAT_L(x, x)$ , call it  $D$ .  $D$  is not expressible in  $L$ . Suppose it is. Then there is some predicate of  $L$  that expresses it, say  $\Psi$ . It will have some code, say  $z$ . Then  $\Psi(z)$  holds iff  $\neg SAT_L(z, z)$  holds. But the latter holds just in case  $\Psi(z)$  doesn't hold. Contradiction. So,  $\neg SAT_L(x, x)$  is not expressible in  $L$ .

The above argument doesn't show what one might think it shows for our discussion here. The language  $L$  indeed can't express the property  $D$  unless it gives rise to semantic paradoxes. If  $L$  already contains its own satisfaction predicate then the extension to  $L^*$  would lead to nothing new. But then, of course, we could formulate a semantic paradox in  $L$ , using exactly the argument that was given above. So, the argument only shows that there is a property that  $L$  doesn't express under the assumption that  $L$  does not contain its own satisfaction predicate. Now, the natural language English does contain its own satisfaction predicate. It can be expressed with the words "(the English expression)  $y$  truly applies to  $x$ " or "(the English expression)  $y$  is satisfied by  $x$ ". So, if the above language  $L$  is supposed to be English then the extension to  $L^*$  is not a proper extension.  $L^*$  is just English again. The argument given is then simply a version of the paradox we discussed in the previous section. The diagonal predicate  $\neg SAT_{English}(x, x)$  is nothing but a formal version of the predicate "does not apply to itself".

The argument does thus not show that there are properties inexpressible in English. It only shows that if a language does not contain its own satisfaction predicate then it doesn't express all properties, and if it does contain its own satisfaction predicate then it gives rise to paradoxes. One can make the same point more easily by considering truth instead of satisfaction. If a language does not contain its own truth predicate then it does not express all properties (namely the property



of being a true sentence of that language), and if it does contain its own truth predicate then it gives rise to paradoxes. For the natural language English the latter of these options applies in both cases. In particular one should thus not conclude from the above argument that there are limits to what can be expressed in our own language.

How the paradoxes are to be dealt with is, again, another story, one that the internalists and the externalists alike will have to deal with. Diagonal arguments of the above kind point to the paradoxes, not to limits in what is expressible.<sup>22</sup>

## 4.5 Modal arguments

Somewhat different arguments against internalism uses modal claims of some kind or other. Such arguments claim that internalism gets the truth value of certain modal claims wrong. In this section I would like to look at several examples of this and argue that they provide no problem, for internalism rightly understood. Here it will be important to distinguish claims that we have good reason to believe to be true no matter what philosophical theory about modality or the nature of properties we adopt, and claims that themselves express a substantial metaphysical view about modality or properties. The latter, of course, can't always be accommodated. Internalism is itself one of the possible views about talk about properties, and it can't accommodate claims that characterize opposing views. However, there are no modal claims I know of that seem to be clearly correct and that are incompatible with internalism.

Let's look at some examples. A common strategy to argue against internalism is to claim that internalism gets the truth value of utterances in counterfactual situations wrong in which there are no language users. The idea is that since internalism uses conjunctions and disjunctions over classes of predicates (or sentences) that in such circumstances the disjuncts would be empty. But this is, of course, mistaken. A sentence like

(46) If there would not have been any languages then Fido would nonetheless have a property.

comes out as

(47) If there would not have been any languages then nonetheless  $\bigvee_P$   
(Fido is  $P$ )

which is equivalent to

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<sup>22</sup>I'm indebted to Rich Thomason for pushing the issues in this section.

- (48) If there would not have been any languages then nonetheless either Fido is a cat, or Fido is a dog, or Fido is . . .

which, of course, is true. The underlying mistake here is to think that internalists equate quantification over properties with quantification over predicates. They don't. They merely make the claim that quantified statements over properties are equivalent to infinite disjunctions and conjunctions, all of which can be formulated in one's language and are sufficiently similar.

Another example apparently in conflict with internalism is

- (49) There might have been different fundamental physical properties.

This is ambiguous between:

- (50) Different properties might have been the fundamental physical properties.
- (51) There might have been different properties than there are, and some of them might have been fundamental physical properties.

The first is no problem for internalism, since internalism can easily grant that even though being an electron is not a fundamental physical property, it might have been. So, this reading of (49) just says that different properties than the ones which are actually the fundamental ones might have been the fundamental ones. Accepting this as well as rejecting it is compatible with internalism.

The second reading of (49) requires that there might have been different properties than there are, and some of them might have been fundamental. This consists of two conjuncts. The second one poses the same problem as the first reading of (49) and thus is no problem. We will have to look at the first conjunct:

- (52) There might have been different properties than there are.

Acceptance of this is closely tied to acceptance of

- (53) There might have been different objects than there are.

In fact, there are some plausible considerations that (53) implies (52). Here is a common argument for this. I'll formulate it as it is usually given first, in an externalist framework. After that we will see how it carries over to an internalist framework.

Suppose you think that there might have been some objects which in fact there aren't. Let Joe be one of them. Then being Joe's brother is an object-dependent property. Object-dependent properties, just like object-dependent, or singular, propositions, exist only if the objects on

which they depend exist. So, the property of being Joe's brother exists only if Joe exists. And if Joe might have existed, but doesn't, then there might have been a property which in fact there isn't, namely being Joe's brother. Or so the externalist's reasoning.<sup>23</sup>

Now, according to internalism a quite analogous situation obtains. What properties there are is affected by what objects there are. This comes from the interaction of the infinite disjunctions with the first order variables that are bound from the outside. In our case, we have

(54) It is possible that there is a property  $P$  such that there actually is no property  $Q$  such that  $P = Q$

According to internalism this is equivalent to

(55)  $\diamond(\exists\vec{v}\bigvee_P [{}_{nom}P])$  is a property &  $@\neg\exists\vec{w}\bigvee_Q [{}_{nom}Q]$  is a property &  $[{}_{nom}P] = [{}_{nom}Q]$

And this is true if there might have been different objects than there are. If that is so then the variables  $\vec{v}$  and  $\vec{w}$  can range over different domains and thus there can be instances of  $P$  and  $Q$  that will be different. Just take *being identical to a* and *being identical to b*, for  $a$  an object which there might have been, but in fact there isn't, and  $b$  any object which in fact exists.<sup>24</sup>

Internalism does not have absurd consequences about the truth values of modal claims. This is not to say that internalism will be able to accommodate everyone's intuitions about modal claims. Some modal claims will be incompatible with internalism. But such claims will themselves express substantial metaphysical views. Internalism is one contender among such views and thus shouldn't be rejected because it doesn't agree with its competitors.

## 5 Consequences and applications

### 5.1 Summary about properties

We have started out by looking at two general views about talk about properties. One view, externalism, takes such talk to be about some mind and language independent domain of entities. The other view, internalism, takes quantification over properties to be merely a logical device to increase expressive power in a language internal way. It

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<sup>23</sup>Not everyone accepts object-dependent properties, of course. This example is merely used to show how it is often argued for that what properties there are depends on what objects there are, and how internalism mirrors this reasoning.

<sup>24</sup>To be precise, the above argument uses that what objects are not named in our language can differ from one world to another.

claims that such quantified statements are truth conditionally equivalent to infinite disjunctions and conjunctions over the instances that can be formulated in that language. Internalism seems to have a serious problem with inexpressible properties that quite directly seems to refute it. We have seen in the above sections that this is false. Internalism, understood not as extreme internalism but as moderate internalism, resists attempts to refute with such arguments. Moderate internalism can accommodate that there is a sense in which different languages express different properties. Moderate internalism is compatible with the inductive argument, and with several more technical arguments that attempt to refute internalism with inexpressible properties. We have seen no reason to reject moderate internalism from considerations about inexpressible properties.

If what I have said so far is correct then internalism is a serious contender in the debate about properties. Of course, we have seen no reason so far why one might think that internalism is true. This is a substantial and further question. To decide whether or not internalism or externalism is true we will have to look at different issues. Among them are

1. What is the function of our talk about properties? Why do we talk about them in the first place?
2. What is the semantic function of property nominalizations, like “being a dog”? What is the correct understanding of quantifier free talk about properties, like “Being a philosopher is fun”, or “Redness is a sign of ripeness”?
3. What is the correct understanding of ordinary uses of quantifiers over properties?

These are the important and hard questions. Strict internalists, loose internalists, and externalists will differ in the answers they will give to these questions. And who is right in the end depends on who has the better answers to these, and other, questions. A direct refutation of internalism with expressibility considerations is not going to work. Once that is clear we can focus on the important questions. In a series of other papers I have given more positive reasons to accept a version of strict internalism. This internalist view is based on a view about quantification in natural language, the relation between quantifiers and ontology, a defense of an internal-external distinction about ontological questions, the semantic function of that-clauses and property nominalizations, and other issues.<sup>25</sup>

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<sup>25</sup>For the main idea of this view and some issues that motivate it, see [Hofweber, 2004], and [Hofweber, a] with an emphasis on noun phrases, or [Hofweber, 2000] with an emphasis on quantifiers. For more on noun phrases from a more general point of view, see

There are, however, some important questions about expressibility that are closely related to the debate we have been engaged in so far. These are about how different languages do in fact differ in what can be expressed in them. But before we can look at this, let's see how what has been said so far applies to talk about propositions, and why this debate is important more generally.

## 5.2 Inexpressible propositions

So far we have focused on properties. The same considerations and arguments, however, carry over to propositions. We will not go through the same issues again in the case of propositions. This would not only be tedious, but is also unnecessary, since one can argue directly that there are inexpressible properties if and only if there are inexpressible propositions. If  $\phi$  is an inexpressible property then

(56) that Joe is  $\phi$

is an inexpressible proposition. And if that p is an inexpressible proposition then

(57) believing that p

or

(58) being hungry even though p

is an inexpressible property.

But besides that, it seems clear that whatever reason one might have to believe in inexpressible propositions will give rise to reasons to believe in inexpressible properties and vice versa. These issues run in parallel, and so do the arguments to the conclusion that they provide no problem for internalism. The moderate internalist's proposal about the modeling of the truth conditions of quantification over properties carries over directly to a model for the truth conditions of quantification over propositions. The only difference is that properties are shadows of predicates, whereas propositions are shadows of sentences. According to internalism, quantification over propositions is equivalent to infinite disjunctions and conjunctions, but now the instances of the disjunctions and conjunctions involve sentences, not predicates. And just as in the case of properties, the relevant disjunctions and conjunctions will involve free extra variables that are bound from the outside by infinitary quantifiers.

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[Hofweber and Pelletier, ]. For a discussion about quantification and ontology, and the internal-external distinction, see [Hofweber, b] or [Hofweber, 2004].

### 5.3 An application: minimalist truth

The claim that there are inexpressible properties and propositions plays an important role in the endgame of several philosophical debates. One obvious case is the debate about the metaphysics of properties and propositions itself. But this is not the only case. I would like to point to one example here where internalism has a quite direct impact and would substantially help a certain position in an important debate, the debate about minimalist theories of truth. I will restrict the applications of internalism to other debates to this example, and I will try to be brief.

The assumption that there are inexpressible propositions gives rise to a powerful argument against minimalist (or deflationary) theories of truth. Such theories claim that truth is really a metaphysically thin notion whose function is mainly to give us increased expressive power of certain sorts. In particular, minimalists about truth stress the importance of the Tarski biconditionals

(TB) It's true that p iff p.

(or an appropriate generalization thereof) for an account of the function of talk about truth. They closely tie the function of talk about truth to the increased expressive power it gives rise to, and they claim that truth is a metaphysically thin notion. Minimalism about truth is thus motivated by considerations congenial to the ones that motivate internalism.

One of the standard objections against minimalist theories of truth, the *incompleteness objection* (see [Schmitt, 1995, 141]), relies on there being inexpressible propositions. The objection goes as follows:

Since there are propositions inexpressible in present English the concept of truth isn't captured by all the instances of (TB). The predicate "true" applies even to propositions that can't be expressed in our language, as in

(59) What the best philosopher in the year 3000 will write will be true.

What this philosopher will write might not be English, and might not be translatable into English. But our concept of truth nonetheless applies. So, the concept of truth goes further than minimalists would have it, we need a substantial notion of truth that applies more widely and more generally.

To accommodate ascriptions of truth to inexpressible propositions, or sentences, or utterances, in foreign languages that can't be translated into English minimalists have taken quite radical measures, and they

have thereby made their views quite implausible. Paul Horwich, in [Horwich, 1990], for example, thinks that the axioms of the theory of our truth predicate consists in all the propositions of the same form as the ones expressed by the instances of (TB). Many of them will not be expressible in English but nonetheless they are axioms of the theory of our concept of truth. Hartry Field, in [Field, 1994], bases his form of minimalism not on ascription of truth to propositions, but on ascription of truth to utterances. He also accepts that there are utterances that express propositions that are not expressible in our present languages, and bites the bullet by accepting that our concept of truth can only meaningfully be applied to utterances that one can understand. Truth of other utterances only makes sense via some translation to ones that one can understand, and doesn't make sense to ones that can't be translated.

The viability of internalism is obviously most central to this debate, and in particular to what formulation a minimalist theory of truth should take. Neither Horwich nor Field give any arguments for there being inexpressible propositions. That there are is a shared assumption in the debate. Moderate internalism can help a minimalist theory of truth in dealing with this objection.

At the beginning of this paper we discussed the sentence (1) (see page 4) involving a truth predicate where it gives rise to increased expressive power. (1) involves quantification over propositions:

(60) For all  $p$  if Jones said that  $p$  in the trial then its true that  $p$ .

If internalism is correct about quantification over propositions then truth is only attributed to expressible propositions (ones that are loosely speaker expressible). Thus the incompleteness objection vanishes. The same holds for (59):

(61) For all  $p$  if the best philosopher in the year 3000 writes that  $p$  then it's true that  $p$ .

That minimalists could deny that there are inexpressible propositions is a well known option, but this option is always portrayed as a last and desperate move. For example, Schmitt writes that "This way of replying must surely be a last, heroic resort." [Schmitt, 1995, 142], and later calls it "in the realm of the preposterous" [Schmitt, 1995, 142]. But with the distinction between extreme and moderate internalism, and with keeping different notions of expressibility apart, we have seen that this is not at all so.<sup>26</sup>

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<sup>26</sup>In what sense different languages differ in expressive strength will be discussed shortly.

## 5.4 Isn't there more to the world than what we can say about it?

Even if there are no direct arguments against internalism using expressibility considerations, one might feel a bit of unease with the internalist view about expressibility. According to an internalist there is an important sense in which the world can be fully described, and all objects can be completely characterized, *by us*. But we might ask for an explanation how that could possibly be so. Wouldn't it be a complete miracle if we could say everything there is to say about the world we live in? And even if we can say everything there is to say, why is this so?

There is one clear way in which this can be made sense of, but this is hardly a way that an internalist would want to be committed to. It would be no wonder that we can express all properties that objects have if a form of idealism is true. If the world and the objects in it are a product or construction of our mind then it might be no wonder that our expressive resources completely capture the world. An idealist could claim that the world as we experience and describe it is a product or construction of our minds, and that our concepts play a central role in this construction. Without going into the details, it might seem possible that an idealist of this kind could claim that all aspects of the world can be captured in our language since after all the world is our product, and it should be no surprise that our products can be fully captured by us.

The internalist's explanation of why we can say everything there is to say is different. It is not because the objects we describe somehow depend on our descriptive abilities. Rather it is based on a view about what it is that we ask when we ask about expressing everything. The internalist's explanation for why we can express everything is based on a view about how general talk about properties and propositions, talk that involves quantification over them, relates to particular talk about properties and propositions, one that doesn't involve quantifiers over them, or that is not about properties and propositions at all. According to the internalist quantification over properties and propositions is merely a generalization over the instances, rightly understood, in one's own language. Thus when we ask whether or not we can say *everything* there is to say we quantify over propositions. And if internalism is right then this quantifier will be a generalization over the instances in our own language. Thus no wonder the answer is that we can say everything there is to say.

The argument that an explanation for the alleged fact that we can fully describe the world requires a form of idealism or pure luck is based on an externalist thinking about properties. True enough, for an externalist complete expressibility would be a surprise and would



require a substantial explanation. If properties and propositions are out there independently of us, it would indeed be a surprise if we can express them all.

An internalist can and should claim that the world and its objects exist independently of us and that objects have the properties they have independently of us.<sup>27</sup> Objects have properties independently of us in the sense discussed above, namely that Fido would still have the property of being a dog even if there were no humans, which comes down to that Fido would still be a dog even if there were no humans. This is the beauty of internalism: the world and the objects in it exist independently of us, objects have the properties they have independently of us, but still, properties are mere shadows of predicates, our predicates.

So far we have mainly focused on arguments that attempt to refute internalism using considerations about expressibility. It is now time to look at a more positive proposal about expressibility.

## 6 The expressibility hypothesis

### 6.1 The hypothesis

Everyone agrees that in *some* sense different languages differ in their expressive strength. What properties and propositions speakers of these languages are able to express differs in some sense. The tricky part is to say more precisely in what sense they differ and why and how this difference comes about. And, of course, there is the additional tricky question whether or not there is a sense in which they do not differ. In the above we have seen two important ways in which different languages differ with respect to expressive strength. First, there can be a difference between what can be expressed using eternal sentences or predicates in different languages. Secondly, there is a difference between what contexts are in fact available to speakers of a certain language. These two differences in expressibility are clearly present, and it is not too hard to see why they are there (we will talk more about this below). But are there any substantially different ways in which different languages differ in expressive strength? And are there limits to what languages in general can express? What we have seen so far suggests a hypothesis about expressibility which says ‘no’ to these questions. It gives rise to a picture about expressibility which is congenial to internalism and to a picture about how and why languages differ in what can be said with them:

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<sup>27</sup>Except, of course, response dependent properties and the like.

(EH) **The Expressibility Hypothesis** Different languages can differ in what can be expressed in them with context insensitive expressions, and what speakers of these languages can in fact express in them. However, all languages agree on what speakers can express with them in arbitrary contexts.<sup>28</sup>

Of course, not every system of symbols deserves to be called a ‘language’. The expressibility hypothesis is clearly false if we allow traffic signs, or C++, or the dance of a bee to be a language. These should clearly not count as a language for our purposes, and all first human languages should clearly count as languages. How to mark the differences more precisely is a substantial and interesting question that we won’t be able to properly address here. The expressibility hypothesis is interesting and controversial enough even when restricted only to human languages. But as a first approximation, for a system of symbols to be a language it has to satisfy at least some minimal conditions: it has to allow for the expression of basic logical concepts, as well as certain other basic concepts. These basic concepts will be discussed further below. The expressibility hypothesis can be empirically refuted, and empirically confirmed, by considering how different languages in fact differ from each other in expressive strength. This is a substantial task, and the considerations given below in support of the expressibility hypothesis can only be considered to be a sketch of an outline of issues that deserve a more thorough investigation. Nonetheless we shall have a closer look at the expressibility hypothesis and how it relates to internalism in this paper.

## 6.2 Internalism and the expressibility hypothesis

The expressibility hypothesis and internalism about talk about properties and propositions are congenial, but independent. Internalism does not imply the expressibility hypothesis. Internalism and expressive chauvinism<sup>29</sup> are consistent. Internalism might be true, and it might be true that our language expresses everything there is to express, even though other languages don’t. Not that we should believe

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<sup>28</sup>This hypothesis has to be distinguished from one that has been endorsed by Searle, in [Searle, 1969]. Searle’s hypothesis is that

(H1) For every proposition  $p$ , if you can think that  $p$  then you can say that  $p$ .

i.e. the content of any thought can be articulated in language. The present expressibility hypothesis is different. It states that

(H2) For every proposition  $p$ , if someone can say that  $p$  in some context then everyone can say that  $p$  in the right context.

i.e. everyone can express any proposition that anyone can express, in the right context.

<sup>29</sup>See page 17, where this notion was introduced.

this. These two positions are, however, consistent with each other.<sup>30</sup> But the expressibility hypothesis implies that expressive chauvinism is false. If it is true then all languages will be equal when it comes to what speakers can express with them in arbitrary contexts, which is what the crucial clause of the expressibility hypothesis says:

- (62) For every proposition  $p$ , if a speaker of some language  $\mathcal{L}_1$  can express  $p$  in some context then for every language  $\mathcal{L}_2$  there is some context  $C$  and some sentence  $\phi$  of  $\mathcal{L}_2$  such that an utterance of  $\phi$  in  $C$  by a speaker of  $\mathcal{L}_2$  expresses  $p$ .

So, internalism about talk about properties and propositions can be true and at the same time the expressibility hypothesis can be false. So, the former does not imply the latter.

And the expressibility hypothesis does not imply internalism. It is consistent with the expressibility hypothesis that propositions are language independent entities, and that there are propositions that are not expressible in any language, in any context. Let's call a proposition that is not loosely speaker expressible in any language a **completely alien proposition**. That there are completely alien propositions is consistent with the expressibility hypothesis, but not with internalism. (62) only says that what is loosely speaker expressible in one language is loosely speaker expressible in any other. This is consistent with the claim that some propositions are not loosely speaker expressible in any language. Internalism requires, however, that all propositions are loosely speaker expressible in our own language. Thus the expressibility hypothesis does not imply internalism.

But internalism and the expressibility hypothesis go together. To accept the expressibility hypothesis and deny internalism would be to accept that even though any proposition expressible in a language at all is expressible in every other language, there nonetheless are completely alien propositions, propositions not expressible in any language whatsoever. It is hard to see what reason one might have for this view. And to accept internalism but deny the expressibility hypothesis would require one to accept a form of expressive chauvinism. Again, it isn't easy to see how this could be justified.

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<sup>30</sup>It might even be true that internalism is true for every language, but still our language expresses more than every other one. If internalism is true for some language  $L$  then quantification over propositions in that language will be equivalent to infinite disjunctions and conjunctions formulated in that language. It might nonetheless be so that one language can express strictly more than another.

### 6.3 Expressive change

To see that the expressibility hypothesis is a reasonable proposal, let's look a little bit more closely at how languages differ in expressive strength, and why they differ in it in this way. It is particularly instructive to look at how the expressive power of a language differs over time. One very important aspect of this is the process of **de-contextualization**. In this process a language is modified in such a way that speakers of it are able to express a certain process without them having to be in a certain context. A good example of this is the introduction of a name into the language.<sup>31</sup> Suppose I like to talk about a certain object *o*. I can always do that if *o* is around, and I can refer to *o* using a demonstrative. But when *o* is not around and isn't in the right spacial or temporal relation to me then talk about *o* becomes impossible or at least tedious. To get around the requirement of having to be in a special spacial or temporal relationship with *o* I can introduce a name for *o*. The expanded language I now speak relieves me of the requirement of being related to *o* in a certain way to be able to talk about *o*. But what I can say now (in any context) and what I could have said before (in special contexts) is the same. The only thing that has changed is that the expansion of the language has made what I can say more independent of what contexts I have to be in to say it. In this paper we mainly focused on reference to an object in a context. Other ways in which the context of a speaker might have an impact on what can be said can be understood analogously.

A second, somewhat more general, way in which languages evolve over time is **lexical addition**. In this process the language gets expanded with a new word that expresses what was before only expressible in a complicated way. A good example of this is to introduce a new, simple predicate for a complex phrase that for some reason or other has acquired greater importance over time, and got used more and more often. This would be analogous to an explicit definition, in the simplest case. But this way can be and often will be mixed with the first way in which languages differ. A new word will be introduced that allows speakers of the expanded language to communicate in a simple way independently of being required to be in a certain context which before could only be said in a complicated way while being in a certain context.

A mixed case is introducing a name via a description. Not only does it allow one to continue talking about an object even if it changes its properties, it also allows one to talk about it in a simpler way than by having to pick it out via a possibly quite complicated description. In addition, such a description might contain context sensitive elements,

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<sup>31</sup>Not via a description. The case of introducing a name via a description is discussed below.

and introducing a name rids the speaker of having to be in a particular context to successfully describe the object.

What de-contextualization and lexical addition will occur in a language over time will heavily depend on what the interests and needs of the speakers in the language community are. Objects that are important will get named, complex phrases that are or become important will be the basis for lexical addition. In addition, what objects and contexts are in fact available to speakers of that language will have a great impact, too, for how the language will evolve.

So, we see that there are several completely unproblematic ways in which what can be said in a language, and how it can be said in different languages, can differ:

- different languages differ in what can be said by speakers of them independently of the requirement of being in a certain context
- different languages differ in how easy it is to say something, i.e. how many words are needed to say it
- speakers of different languages will in fact have different contexts available to them to make utterances in

These ways in which languages differ are unproblematic and together sufficiently strong to give rise to the impression that what can be expressed with a language is something quite independent of and external to the language. These considerations account for many externalist intuitions, and why the expressibility hypothesis seems radical. But moderate internalism accommodates all of them. Is there any reason to believe that there is a difference in what can be said in different languages that goes beyond these, or analogous, considerations? How might it come about that different languages indeed do express propositions that can't be expressed in the other language, even in arbitrary contexts?

## 6.4 Holism and the expressibility hypothesis

One way in which I can see this to be the case is holism. If holism is right then, leaving subtleties aside, there aren't two sufficiently different languages that can express the same proposition. Holism is a real alternative to the expressibility hypothesis, but I won't argue with it here. I personally find little reason to believe holism to be true, but if you do then the expressibility hypothesis is not for you. Holism and the expressibility hypothesis describe the two extreme ends of the spectrum about how languages differ in what can be expressed in them. Holism says, again leaving subtleties aside, that nothing that can be said in one language can be said in another one. The expressibility hypothesis

says, also leaving subtleties aside, that everything that can be said in one language can be said in every other one. If you are like me and you find no reason to accept holism then the expressibility hypothesis should be serious candidate for you. It makes sense of how languages differ in expressive strength and lexical setup. It makes sense of why we think that what can be said in one language isn't all that can be said (by taking recourse to the different notions of expressibility). And it gives us an account of how and why different languages differ in what can be said with them without collapsing into a position that doesn't allow for the same thing to be expressible in different languages, even radically different languages spoken by speakers in different locations and at different times.

We who reject holism should take the expressibility hypothesis as a working hypothesis about what is expressible and how different languages differ in what can be expressed in them. The expressibility hypothesis might be too naive, and might ultimately have to be rejected. But if it fails we should see why precisely it isn't enough, and what gives rise to different expressive strength that isn't already captured by the cases discussed above. There might be some reason to reject the expressibility hypothesis as stated, but this reason is only a modification of one of the themes we have already discussed. But maybe there is a reason to reject the expressibility hypothesis altogether, which is not based on a particular wording of the hypothesis. If we could see such a reason we would have learned something very substantial and important about our languages or our minds.

One tempting line of reasoning to refute the expressibility hypothesis is based on the observation that what is expressible in a language according to the expressibility hypothesis depends on the basic concepts that are articulated in the language. Not everything expressible in a language can come from de-contextualization and lexical addition, or related processes. Some expressive resources have to be basic. Now, suppose it is true that if two languages articulate the same basic concepts then what is loosely speaker expressible by predicates and sentences in them is identical. Might there not be different languages that express different basic concepts? And if so, wouldn't what is loosely speaker expressible in these languages be different? Isn't that reason to give up the expressibility hypothesis?

It is certainly conceivable that other creatures speak a language that contains different concepts as the basic concepts. This is compatible with the expressibility hypothesis. One such case would be that even though for us negation and disjunction are the basic truth functional operators, for them it's negation and conjunction. Still, though, for both of us all truth functions are expressible. What is required for this kind of argument to refute the expressibility hypothesis is that

there are creatures whose basic concepts are not even expressible by us. And this is of course much more controversial, and in fact repeats one of the controversies we had above. Can we really make sense of that other people or other creatures have some basic concepts that we can't express at all? If you like holism you might find this plausible, and if you tap your externalist intuitions you might have little problem with it. But independently of that I see little reason to accept it, and to give such considerations an important status in our considerations about what large scale view about expressibility and talk about properties and propositions we should accept. The expressibility hypothesis makes sense of why and how languages differ in their expressive power. Unless we find plausible reasons to reject it I think we should work with it. It's our best bet.

## 7 Conclusion

The main aim of this paper was to show that internalism is not refuted by considerations about expressibility. Internalism seems to be committed to expressive chauvinism, and this is a very implausible view. However, once we distinguish extreme from moderate internalism, and once we distinguish several notions of expressibility it becomes clear that issues about expressibility and how they relate to internalism are not as simple as they might at first seem. As we have seen in this paper, moderate internalism can accommodate that for every real number there is a property of being larger than that number, that there might have been different properties than there are, and that not every property is expressible in every language ("expressible" rightly understood). In addition, internalism is congenial with a view about expressibility, captured in the expressibility hypothesis, which is a plausible hypothesis about expressive change, at least for those among us who don't believe in holism. Internalism is not implied by this view about expressibility, since this view does not rule out that there are completely alien propositions. But should we believe that there are propositions inexpressible by any speaker in any language in any context? The answer to this question will partly depend on the answer to the question what we do when we talk about propositions in the first place. In this debate we try to understand our own talk about properties and propositions. What function this talk has will be central in determining whether or not internalism or externalism is true. What we do when we talk about and quantify over propositions will be part of the story about whether or not the statement "there are completely alien propositions" is true. If externalism about talk about propositions is right then it might be true, if there indeed is a completely alien proposition out there. But if quantification over

propositions has a function more congenial to the internalist than it will be false, whatever is out there in the world. Part of what is at issue in answering this question is understanding our own language, in particular what we do when we talk about properties and propositions.

To decide how this talk should be understood will involve a number of further and substantial issues, ones that do not directly relate to considerations about expressibility. These will be issues partly in the philosophy of language, and partly in metaphysics. They will include issues about the function of property nominalizations and quantifier free talk about properties, whether or not that-clauses are referring expressions, issues about the role of properties in accounts of laws of nature and causation, and many more. These are the issues where the debate between externalism and internalism, and ultimately between minimalist and substantial approaches to the metaphysics of properties and propositions, will be settled. How this will go is, of course, a completely different story. The goal of the present paper merely is to make sure that internalism and minimalism are not ruled out because of considerations about expressibility.<sup>32</sup>

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