

Notes on The Line in the Sand: Plato, Cappelen and Lepore<sup>1</sup>  
Forthcoming in an Oxford collection on Semantics and Contextualism edited by Preyer

## I Introduction

For Cappelen and Lepore's *Insensitive Semantics*,<sup>2</sup> giving a semantics consists of constructing a truth-definition by giving predicate-clauses for individual items of vocabulary and specifying logical forms for kinds of sentences. Part of the idea, of course, is that the sentences generated by the syntax get truth-conditions. This conception adopts the old-fashioned idea that predicates have predicate-places, and that sentences with truth-conditions are generated recursively, yielding equipment for communication. This is an idea that Davidsonians grew up with.

Cappelen and Lepore add the apparently reasonable requirement on a semantics that what is actually said has truth-conditions, except for a well-defined class of context-dependent expressions. While a Davidsonian semantics that allows some unarticulated constituents is still truth-conditional, the unspoken constituents can seem to be *dei ex machina*, which can be made up as needed. Once you allow some silent contributors to truth-conditions, it is hard to stop. Cappelen and Lepore argue that there is no principled way to stop.

Particular postulations of unarticulated constituents could be justified if there were no reasonable alternative. One place where there has long seemed to be compelling arguments that such constituents were necessary is comparative adjectives. Unarticulated constituents solve problems with avoiding the familiar contradiction of the tall man who is not a tall basketball player, connecting comparatives and attributives, and accounting

---

<sup>1</sup> I would like to thank the members of the 2005 Summer Reading Group on Semantics and Pragmatics, Erin Andrew, Tom Bontly, Kevin Kearney, David Lambie, Boram Lee, and Frank Scott for helpful discussions.

<sup>2</sup> Cappelen, Herman and Lepore, Ernie, *Insensitive Semantics*, (Blackwell, 2005)

for features of “much” and “very.”<sup>3</sup> The idea that comparative adjectives might be one place predicates seemed to fly in the face of obvious counterexamples.

Cappelen and Lepore notice this reaction. Near the end of *Insensitive Semantics*, they propose that “John is tall” has the form “Tj,” i.e. “John has the property tallness.” Comparative adjectives, they say, is the topic on which “virtually everyone with whom we have discussed Semantic Minimalism draws a line in the sand...”<sup>4</sup> That was my reaction at first.

On reflection, I am not so sure. One thing that I am sure of is that it is a point in favor of a truth-conditional semantics that unarticulated constituents be kept to a minimum. Cappelen and Lepore propose a theory with what is probably<sup>5</sup> the minimum possible use of context to fill-in a sentence to get something with truth-conditions. So, since comparative adjectives are the main sticking point for me, it would be an important argument for the theory if the theory could successfully deal with comparative adjectives.

Another consideration is more particular: As section III below shows, if we want to have a semantics that uses predicates in the traditional way at all, we had better not assign “tall” an extra argument-place. If we require a hidden argument place for “tall” we will need one for predicates like “is a 1998 Ford F-150.” Thus there is reason to think that if anything of the old-fashioned truth-definitional semantics is defensible at all, “tall” should be one-place.

A final reason that moves me, at least, to think a Cappelen-Lepore semantics might work is that Plato also held the thesis that comparative adjectives are one-place

---

<sup>3</sup> Wheeler, Samuel, “Attributives and their Modifiers,” *Nous*, Vol. VI, No. 4, November 1972, pp.310-334. an early manifestation of Davidsonism, employs unspoken constituents liberally, for instance.

<sup>4</sup> Cappelen and Lepore, op, cit, page 170.

<sup>5</sup> One could imagine a theory that treated indexicals and demonstratives as temporary names, so that the “passing language” might be completely articulated. No one has tried this, to my knowledge.

predicates. Plato offers (at least) two treatments of comparative adjectives, one in the *Phaedo* and one in the *Philebus*. Both treatments, it turns out, can be interpreted as meeting reasonable conditions on a theory of comparative adjectives. Both accounts treat “tall” as a one-place predicate.

Two out of three of the “great forms” in the *Sophist*, those central natures that pervade the forms, are relational predicates. Comparative adjectives, those things said “pros allos,” constitute very many of Plato’s examples, especially when figures such as Parmenides are criticizing the early theory of forms. Plato was pretty smart and obviously had thought a lot about comparative adjectives. It would be quite remarkable if his considered view was incoherent.

Plato’s treatments are primarily metaphysical, but suggest semantical accounts, given the close relationship Plato supposes between what is truly said and what is the case. I argue that the Platonic accounts of comparative adjectives give helpful guidance in constructing a semantics for comparative adjectives along Cappelen-Lepore lines.

Section II of this essay will sketch an interpretation<sup>6</sup> of the two Platonic theories, relying heavily on a paper by Castaneda<sup>7</sup> that has been by and large neglected in the literature of Plato scholarship for the account in the *Phaedo*, and on a book by Sayre<sup>8</sup> for the *Philebus* theory. Section III will then discuss what exactly the “comparative adjectives” the theory is to deal with are. It will argue that “comparative predicate” is a more apt term for a very large population of expressions. The rest of the essay will then

---

<sup>6</sup> I emphasize “sketch” and “interpretation,” since the focus of this paper is not Plato scholarship. Much of what I say about the *Phaedo* and the *Philebus* is uncontroversial, but some of the detail, especially on the *Philebus*, depends on taking Aristotle’s remark about Plato as more or less accurate.

<sup>7</sup> Castaneda, Hector-Neri, “Plato’s *Phaedo* Theory of Relations,” *Journal of Philosophical Logic* 1 (1972) pp. 467-480.

<sup>8</sup> Sayre, Kenneth, *Plato’s Late Ontology*, Princeton UP, 1983.

address what seem to me to be the two major problems with treating comparative adjectives as one-place: Section IV will then show one Platonic way a theory can avoid the apparent contradiction that results from the apparent truths that there are men who are basketball players who are tall men but not tall basketball-players. Section V will argue that the analysis of “John is tall” proposed in section IV is not so trivial. Section VI then uses Plato’s picture to answer the second question, how the theory accounts for the apparent connection between “tall” and “taller than.”

Section VII will conclude that there is at least one way to answer the apparent problems by use of semantical analogs of Plato’s accounts of comparatives. Thus it turns out that there is at least one way that a Cappelen-Lepore semantics can be made to work for comparative adjectives.

## II Plato’s *Phaedo* and *Philebus* on the Metaphysics of Comparative Adjectives

Comparative adjectives feature importantly in presocratic philosophy. Theories of the universe were constructed out of opposites and elements, by and large. The “opposites,” roughly speaking, pairs of contrary comparative adjectives, seem to have been conceived of as stuffs that mix in various proportions to yield resultant stuffs.

Something is lukewarm in virtue of having a certain portion of Hot and of Cold.

Comparative adjectives were, as it were, on the agenda of ancient philosophy.

Plato deals extensively with relations and comparative adjectives. Two of the central mega-Forms in the *Sophist*, for example, are the relations of Sameness and Difference. The famous difficulties about the theory of forms raised in the first section of

the *Parmenides* largely concern relations and comparative adjective. The examples of natures in the *Phaedo* discussion of explanation<sup>9</sup> are Tallness and Shortness.<sup>10</sup>

Modern commentators have not been kind to Plato on these matters, treating him as deficient in his understanding of relations and of the implicit relative nature of comparative adjectives.<sup>11</sup> In effect, the reaction of modern commentators to Plato is much like the reaction of most semanticists to Cappelen and Lepore. On reflection, given that Plato chose these as his examples, it would be surprising if Plato's views were as obviously wrong as they are made out.

Plato's account of comparative adjectives in the *Phaedo* treats them as one-place predicates.<sup>12</sup> Simmias is tall in relation to Socrates because of Simmias' tallness. Socrates is shorter than Simmias because of his shortness. Socrates "presents his shortness to Simmias' tallness to be overtopped. Simmias, on the other hand, presents his shortness to be overtopped by Phaedo's tallness."<sup>13</sup>

The shortnesses and tallnesses in this account seem to be conceived of as individuals that are akin to Aristotelian entities in categories other than substance. Simmias' tallness is an entity that is an attachment of Simmias. Other Aristotelian examples of such dependent individuals would be Simmias' momentary posture or facial expression.

---

<sup>9</sup> *Phaedo*, St. 102.

<sup>10</sup> "Smikros" and "megethos" in the context seem best translated "short" and "tall" rather than "small" and "large."

<sup>11</sup> See Castaneda, op. cit. for a catalog of commentators' remarks.

<sup>12</sup> These predicates are said "pros allos," that is, "toward another." That is, while Tallness and Shortness are individual properties, they are said with respect to something. Plato thus in the *Phaedo* apparently holds that comparative adjectives in non-comparative constructions somehow build in a real comparative element. This is not a feature we will appropriate for Cappelen and Lepore.

<sup>13</sup> *Phaedo* 102c6-d2.

These tallnesses and shortnesses are often characterized by commentators as property-instances. A tallness is indeed an instance of a nature, but it is not merely a case of Tallness Itself. Simmias' tallness has a different quantity from Phaedo's. Thus a tallness is not like a case of having been in Texas, which an individual either has or lacks. A tallness is a condition of the subject—which condition can itself have properties, bear relations, and the like. For some properties, such as Beauty, Plato seems to have thought, at least early on, that instantiation itself admitted of degrees. But Beauty, along with Triangularity and the like, has a perfection, or upper bound, which can be regarded as an ideal case to which instances can approximate. On the hypothesis that Plato was smart we can suppose that Plato noticed that “tall” “hot” and other comparative adjectives could not reasonably be treated as approximations to ideals.<sup>14</sup> So the quantities of tallnesses and shortnesses would have to be features of the tallnesses and shortnesses themselves rather than assigned to degrees of instantiation. Tallnesses and shortnesses of individuals are thus not abstractions, but real particulars.

The pioneering paper defending Plato on relations in the *Phaedo*, by Hector-Neri Castaneda,<sup>15</sup> not only reviews the secondary literature,<sup>15</sup> but provides a completeness proof for a theory of comparative adjectives that comports with Plato's discussion of tallness and shortness in the *Phaedo*. Castaneda's account requires that Plato conceive of instantiation as involving pairs of forms being instantiated in pairs of objects. So, in the

---

<sup>14</sup> There is clearly development in Plato's views. The early dialogs concern natures that can be plausibly construed as ideals. The *Phaedo* is a middle dialog. A good indication that Plato is aware of the difficulty is in the first section of the *Parmenides*, another middle dialog. At 130c, Socrates, on questioning by Parmenides, says he doesn't think there are natures corresponding to mud, dirt, and other entities that lack ideals. Parmenides' comment is that that is because Socrates is still young. This passage is a good reason to think that Plato abandoned “degree of participation” as the explanation of differences in tallness.

<sup>15</sup> Hector-Neri Castaneda, *op. cit.*

case at hand, the Tall and the Short are instantiated together in a pair of entities A and B, thus producing a Tallness in A and a Shortness in B that is paired with the Tallness in A.

Castaneda's approach is limited to accommodating the *Phaedo's* discussion of comparative adjectives, and focuses on a theory of relations. It handles Plato's conception of "pros allos" well. However, the account, like that in the *Phaedo*, leaves many questions unanswered. Why, for instance, do just these features come in pairs? What is the common element that gives pairs of opposites, i.e. comparative adjectives, similar logics and structures?

The *Philebus* provides hints that begin to answer these questions. The theory behind the remarks in the *Philebus* appears to be designed to give a deeper basis for some of the claims of the *Phaedo* account. If anything, the *Philebus* account is even more incomplete than the *Phaedo's*. The following interpretation follows Sayre<sup>16</sup> in taking Aristotle's remarks in *Metaphysics* A and M to refer to the account given in the *Philebus*.

In *Philebus* 16a ff, Socrates gives an account of scientific classification as the positing of intermediates between the One and the Indeterminate. The example, at 17d, is that of the dimension of high and low pitch being organized into intervals and notes. At 24a, the discussion turns to the general phenomenon of continuous dimensions of all kinds, that is, all features that admit of more and less. At 24d7-25a3, Socrates says,<sup>17</sup> "Everything we find that can become more or less, and admits of strength and mildness, too much, and everything of that sort, we are to put in the indeterminate category, as constituting a single class...." Socrates goes on to say how the application of number and measure yields determinate kinds.

---

<sup>16</sup> Sayre, Kenneth, *Plato's Late Ontology*, Princeton UP, Princeton, 1983.

<sup>17</sup> Translation from *Philebus*, Gosling, J.C.B. translator, Oxford UP, 1975.

On the hypothesis that Aristotle's remarks about Plato's philosophy have some basis, passages from *Metaphysics* A6 and A9, and M7-9 illuminate what Plato is suggesting in the *Philebus*. According to Aristotle in these chapters, Plato posited an Indefinite Dyad, a nature common to all natures that admit degrees. According to Aristotle, Plato construed these as strictly continuous dimensions. "We [Platonists] posit lengths as being formed from the Long and the Short (a sort of species of the Great and Small), planes from the Wide and Narrow..." (991a12)<sup>18</sup> These continuous dimensions, that is, are natures that admit of, i.e. blend with, the Great-and-Small.

The Great-and-Small, or "indefinite dyad" is the nature corresponding to "more and less," the general relation underlying all dimensions. "Species" of this nature are such pairs as hot-cold, tall-short, heavy-light, and so forth. The great-and-small, the entity that "more-than" or "er" designates, is the basic reality behind all comparatives.

Plato's *Philebus* account, like the *Phaedo* account, suggests a semantics that accords well with the Cappellen-Lepore thesis that comparative adjectives are one-place. If "comparative adjectives" are one-place, then comparatives themselves are the result of a comparative morpheme or predicate that applies to some referents associated with such one-place predicates. Plato's great-and-small is the metaphysical referent of the "more than" relation and its converse, "less than." Particular dimensions are the great-and-small applied to a nature. So, the tall and the short are natures that partake of the great and small in the phenomenon of different degrees to which entities can be tall.

Plato's thought is that there is something in common among the various comparative adjectives, and this is, roughly, their having the property of "moreness."

---

<sup>18</sup> Translation from *Aristotle's Metaphysics*, Hippocrates Apostle translator, The Peripatetic Press, Grinnell Iowa, 1979.

Cappelen and Lepore should agree. On Davidsonian-Quinean grounds, the common feature among “tall,” “hot” and the other paradigm comparative adjective cannot be semantic, since predicate-satisfaction clauses are the terminus of a semantics. Cappelen and Lepore cannot very well posit a syntactic account of the common feature, given that comparative adjectives are one-place. I adapt this Platonic idea to the semantics of comparatives below.

It is worth noting that Plato treats the application of number to phenomena like height as an *application* of number, not as constitutive of the nature of the Tall, for instance.<sup>19</sup> Just as Cappelen and Lepore, following Davidson, do not analyze individual predicates as having semantic structure or analyses in other terms, but rather regard semantics as completed when the level of predicate-satisfaction clauses is reached, so Plato treats the Tall and the Short, the Hot and the Cold, and other pairs of opposites as natures in themselves. That is, Plato does not treat tallness itself as something to be analyzed in terms of a measure by which one entity exceeds another. “Five feet tall,” then, is not only not a comparative adjective, and it is not the kind of phenomenon that underlies attributions of “tall.” “Five feet” characterizes a tallness, just as “five feet taller than” characterizes an excess of one tallness over another.

The main features of Plato’s account that the following account adapts to a Cappelen-Lepore-friendly semantics for comparative predicates are these:

- 1) Comparative predicates are one-place ascriptions of properties to entities.
- 2) Conditions of having a property, property-instances, are entities referred to in comparative constructions.

---

<sup>19</sup> I take this to be the point of distinguishing between the indeterminate and the determinant and the unit that results from them in *Philebus* 23 c and d.

3) Comparative constructions refer to the property of Moreness, the general feature of admitting of degrees.

4) Comparative predicates are true both of the property- instances as well as of the individuals on which those property- instances depend.

### III Scope of Comparative adjectives

On the view that “comparative adjectives” are one-place predicates, which predicates are comparative adjectives? The criterion can no longer be that they are incomplete without a reference-class, so perhaps it is something like “takes a comparative.”

By this criterion, a great number of predicates count as “comparative adjectives.” All such predicates would be secretly two place relations. Thus, clearly, “red” would turn out to be a two-place relation. This might be expected. As many have observed, a given shade can be truly said to be red when applied to a face but not when applied to a Christmas ornament. As Lewis famously pointed out<sup>20</sup> (indirectly) such predicates as “is hexagonal” appear to be comparative. If we take “takes a comparative” seriously, then count-nouns and mass-terms can be comparative predicates. “Fred is more an administrator than John is,” seems to make “is an administrator” a comparative predicate. Given familiar sorites arguments by decomposition, “is a 1998 Ford F-150” might be a comparative predicate. If we have two vehicles being disassembled, presumably the one less far along in the disassembly is more a 1998 Ford F-150 than the other. Perhaps some predicates, such as “is divisible by three without remainder” really don’t take a comparative. Perhaps 1.41 is not more the square root of 2 than 3.8.

---

<sup>20</sup> Lewis, David, “Index, Context, and Content,” in Lewis, *Papers in Philosophical Logic*, (Cambridge UP 1998), p.24.

If the criterion is “takes a comparative,” we must ask what kind of criterion this is. It cannot be a syntactic criterion, given that we have abandoned occult argument-places. It cannot be a semantic criterion, given the Davidsonian view that semantics does no more than specify predicates and logical forms in a way that allows recursive truth-conditions.

All that is left, it seems, is: “Takes a comparative” is true of a predicate just in case the predicate admits of degrees. This is a question of what is true and what can be true. That is, suppose it were the case that there were no true comparatives with a predicate like “is the square root of two.” The reason would presumably be something about the square root of two. That would seem to be a truth of mathematics (or perhaps metaphysics) rather than a truth of semantics.

The only test for “admits of degrees” I can come up with is the following: There are truths which either use the comparative of the predicate or which have an intensifier like “very” applied to the predicate. By this criterion, as I will argue below, some quantifier expressions, such as “much” and “many” are comparative predicates. Some verbs seem to admit of degrees. As will be apparent below, even a verb like “loves,” the paradigm two-place relation, can be treated as a one-place comparative predicate.

Predicates such as “hexagonal,” “red” and “is a 1998 Ford F-150” are not usually included among the comparative predicates. Most of the time, “is a 1998 Ford F-150” applies to an object or not, without apparent reference to a comparison class. The differences between “red,” “is a 1998 Ford F-150” and “tall” appear to rest on nothing but empirical facts and their consequences for interpretation. The difference between “red” and “tall” is simply that in understandings of attributions of “red” there is usually

no difference between the conjunctive and the “for an x” reading. “Red” has, loosely speaking,<sup>21</sup> an upper bound, so that many red things are red for anything. “Red”’s “upper bound” is commonly met. Thus very many entities are red for anything. “Having an upper bound” is not a semantic predicate. No special logical form is ascribed to such predicates. Intuitively, perhaps, “tall” and “fast” have no upper bounds, while “red” and “triangular” do. But of course it turns out that “fast” does have an upper bound, and that a photon can be fast for anything.

Thus a major consideration that makes the Capellen-Lepore thesis that comparative adjectives are one-place predicates attractive is that if the arguments for special treatment of “tall” were good, almost any *prima facie* one-place predicate should have a secret argument place. Unless we want to treat “hexagonal” as a two-place predicate, we need a way to have “hexagonal for a country” while retaining “hexagonal” as a one-place predicate.

#### IV Tall, tall man, and tall for a man

The problem I had “John is tall” simpliciter is not that it fails to express a proposition, but rather that, if “John is a tall man” is treated as the conjunction of “John is tall” and “John is a man,” as the sufficiency of “John is tall” implies, apparently true sentences entail contradictions. That is, given the familiar situation where “John is a tall man,” “John is not a tall basketball player,” “John is a man” and “John is a basketball player” are all true, coupled with the conjunctive account of “tall man” and “tall basketball player,” we would get the conjunction “John is tall and not tall” as a consequence. This would not be a good result.

---

<sup>21</sup> I doubt that “red” is actually well-ordered. While there are pairs of patches such that one is redder than the other, there are also pairs of patches such that it is indeterminate whether they are equally red or whether one is redder than the other.

So, I was not troubled by the obvious fact that “is a tall man” or “is a tall giraffe” do not determine sets or express precise concepts. The difficulty arises as long as there are clear cases where an individual is clearly a tall F, is clearly not a tall G, and is both an F and a G.

Cappelen and Lepore suggest that “tall man” is to be understood as “tall for a man.”<sup>22</sup> This would be fine if it were not the case that comparative adjective-plus-count noun constructions have a conjunctive as well as an attributive reading. That is, “My F-150 is a red Ford” can be understood either as “My F-150 is red and is a Ford” or as (almost--see below) “My F-150 is red for a Ford.” For Cappelen and Lepore, the option of saying that context determined whether there is an unarticulated “for a” that distinguishes the two readings is not available.

So, what to say about “John is not a tall basketball player,” when John is a basketball player, but John is not tall for a basketball player? The simplest view is that the sentence is in fact a conjunction, and does not contain “for a basketball player.” Thus it is false if either John is not tall, has no tallness, or fails to be a basketball player. Given that John is a basketball player, and that John is in fact tall, i.e. has some tallness, the sentence is false. But, since it is obvious that John, being a human, is tall, a person writing or uttering the sentence would be unlikely to believe that John is not tall. So, routine interpretation would understand the sentence as (almost) “John is tall for a man.” This simplest view seems to me the best: “John is not a tall man” is a disjunction of the conjunctions “John is not tall and not a man”, “John is not tall and is a man” and “John is tall but not a man,” but when it is obvious that John is a man, is understood as (almost) “John is tall for a man.”

---

<sup>22</sup> Cappelen and Lepore, *op. cit.* p.75.

“John is tall for a man” is presumably to be understood as a relation between John and the something like set of men. Can this relation be a primitive? It is doubtful that “tall for an F” has any analysis that is part of the semantics of the construction. Analyses of “tall for an F” such as “taller than most F’s” fail because of ancient counterexamples.<sup>23</sup>

There is one difficulty, however. If the relation is to be the “contextual” reading of “John is a tall man,” it must entail that John is a man. That is, while my height makes me tall relative to the heights of medieval knights, I am not a tall medieval knight.

“Wheeler is tall for a medieval knight” is perhaps questionably true. But it appears that “tall for an F” does not entail “is an F”, whereas the understanding of “is a tall F” does.

We spot an animal in the distance. You say, seeing an animal in the distance, “That’s tall for an ibex.” I with my binoculars reply, “It is tall for an ibex, in fact it’s too tall for an ibex. It’s an eland.”

But this difficulty disappears when we think of the sentence being interpreted. “John is a tall man” literally means that John is tall and John is a man. “John is a tall man” thus says that John is a man—it’s a conjunction. The only part of the sentence that calls for revisionary interpretation is the first conjunct, since, given that John is a man, that he is tall is trivially true. So the speaker must mean that John is not only a man, but tall for a man.<sup>24</sup>

---

<sup>23</sup> Wheeler 1972 page 332-333. Here’s another counter-example: Beer comes in tall glasses and short glasses. Tall beer glasses range from 13-15 centimeters, whereas short beer glasses range from 5 to 7 centimeters. In fact, there are five times as many tall beer glasses as short beer glasses. Nine out of ten tall beer glasses are 14.5 centimeters tall or more. A 14 centimeter glass is a tall beer glass even though it is shorter than most beer glasses.

<sup>24</sup> Thus the present sample theory has a big advantage over theories that make “tall man” a two-place predicate. The only way my 1972 theory could come up with to get “is a man” to follow from “is a tall man” was to add the conjunct “is a man” to the two-place relation—a primitive and ugly solution.

The difficulty with “tall” and “tall for an F,” if the former is a one-place predicate, is that the latter appears to be a two-place predicate. It cannot be that “John is tall for a man” is a matter of John being tall and John being for a man. Somehow, it’s his tallness that is relative to the class of men. Cappelen and Lepore suggest<sup>25</sup> that this difficulty of “variable polyadicity” might be handled in a way analogous to Davidson’s treatment of adverbs.<sup>26</sup> Where Davidson quantified over events, the obvious thought might be to quantify over “states.” That is, you would treat “tall” as a one-place predicate of a “state” and then treat “for a man” as a two-place predicate of that state and the set of men, perhaps.

There are two conception of state that need to be distinguished: First, there is the state of John being tall, referred to by a nominalization of a sentence. I will argue that this kind of state is an intentional entity that can be supposed to exist, but cannot be a basis for a semantics. Second, there is John’s state of being tall, referred to by the nominalization of a predicate. This state is John’s condition of tallness, a dependent particular. The second kind of state, in effect a Platonic state, is the entity that the analysis needs.

The first sort of state is constructed out of the truth-conditions of sentences, so that such states cannot be used to give truth-conditions. We would to go about semantics in the wrong direction: A state conceived in the first way is an individual having a property. Since the state then amounts to the truth of a sentence, the state is a fact, an

---

<sup>25</sup> Cappelen and Lepore, *op. cit.* page 75.

<sup>26</sup> Davidson, Donald, “The Logical Form of Action Sentences,” in *Essays on Actions and Events*, 2<sup>nd</sup> edition, Oxford UP 2001, pp. 105-121.

entity corresponding to the truth of a sentence. If we block the Slingshot<sup>27</sup> argument by denying that substitution of co-referring expressions preserves what state is being referred to, we have intentional entities and different states for every distinct sentence. If we allow such substitution, then we have one state, how the world is.

Given that we have some sentences with truth-conditions, we can, in terms of those truth-conditions, define states of the world as states in which a given sentence is true. But then truth-conditions have to be determined independently of the states that are defined in their terms. Of course, once we have truth-conditions, then we can define a “state of the world” as the world being such that those truth-conditions obtain. So some surrogate for facts can be obtained. These “facts,” however, would be intentional entities, and any two distinct true sentences would determine distinct states of affairs or facts.

The second kind of state, exemplified by “John’s condition of being tall” and “the tenderness of the love between Tristan and Iseulde,” are particulars that can themselves have properties. These particulars are in effect Plato’s tallnesses from the *Phaedo*. So, “John is tall for a man” says that there is a tallness John has which stacks up in relation to the members of the reference class in whatever way is required for John to be tall for a man. So, the account would be that, in the “tall for a” construction, the predicate term refers. So, “ $\exists x (Tx \wedge \text{Has}(j,x) \wedge \text{For}(x, \text{the set of men}))$ .” One might prefer “the set of tallnesses of the set of men,” but this isn’t necessary, since a condition presumably bears the for-relation to a set of non-conditions or not depending on how it stacks up against their conditions of the same type.

---

<sup>27</sup> For the best treatment around of the Slingshot and its consequences, see Stephen Neale’s *Facing Facts*, Oxford UP, 2001. The term “Slingshot argument” is due to John Perry.

“For,” means *for*, in the Cappelen-Lepore tradition. What particular speech act is performed by using “for” will be subject to interpretation. “Dana is eager for a woman” is not ambiguous, then, but a speech-act using the sentence can be interpreted in (at least) two ways. The sentence will be true, of course, whenever Dana has an eagerness relative to the class of women. The other possibilities available to Cappelen and Lepore about “for” would be to postulate the “for” is homonymous or to find compelling evidence that there is a hidden clause “Dana has a woman” unspoken in the utterance on some readings.

This solution treats “tall” as a one-place predicate of John in “John is tall” and as a predicate of one of John’s conditions in “John is tall for a man.” This oddity seems to fit other kinds of predicates that take “for.” “John is hungry” certainly looks like a one-place predicate characterizing some phenomenological or physiological state of John. “John is hungry for a pizza,” though, seems to recognize a hunger directed at something, i.e. to require a relation.

So, what does it take for “John is tall” to be true? “John is tall” is true if and only if John is tall or has (some) tallness.

#### V What’s Tall?

On the Platonic version of the Cappelen-Lepore view we are considering, something is tall just in case it has tallness. Cappelen and Lepore seem to consider this the idea that an entity is tall if it is tall relative to some set, and characterize it as an “unpromising” suggestion, since it makes being tall very easy.

In fact, if having tallness is what it takes, tall things are quite rare, statistically. Here are some non-controversial entities (leaving out real numbers, geometrical objects,

and sets) that are not tall: Planets, stars, galaxies, photons, electrons, deserts, oceans, continents, and quarks. Viruses and proteins may be long, but are probably not tall. Being tall requires having a top and a bottom, which requires having a normal orientation to something horizontal and much larger. I doubt very much that there is a criterion storable in physical terms for what qualifies an entity to have some tallness.

Thus I would surmise that not only is “tall man” vague, for familiar reasons, but also that “tall,” in the interpretation we are conjecturing, roughly “has some tallness,” is vague. It is unclear, for instance, whether plesiosaurs, which ordinarily swim with their necks extended forward, but occasionally raise their heads high above the water, are therefore correctly said to be tall aquatic dinosaurs. Rocks that have tumbled down a mountainside and are only temporarily resting on one of their faces only doubtfully are tall anything. The plesiosaur’s neck reaches to a height on an occasion, and the rock has a height in a position, but neither the plesiosaur nor the rock have tallness as a condition of themselves.

The metaphysics of comparative adjectives will have to allow for properties without well-defined extensions. “Is tall” is a vague one-place predicate. For some comparative adjectives, the “dimension” along which they have “degrees” is not even well-ordered, so that there are pairs of objects with some degree of niceness, for instance, such that it is indeterminate whether one is nicer than the other or vice versa, or they are equally nice.<sup>28</sup> The majority of comparative predicates have this further indeterminacy, in fact. “Is triangular,” “is classic,” and “is funny” are examples.

---

<sup>28</sup> “Nice” is a nice example from Rosanna Keefe, “Vagueness by Numbers,” *Mind* vol 107, 1998, My 1978 “On that which is not” (*Synthese* 41, 1979, pp.155-173) used baldness as an example. Baldness has traditionally been used as a clear sorites about numbers of hairs, overlooking parameters such as the distribution of hairs and the size and shape of the head.

What, then, is it to be tall? The Platonic answer, and the only one that seems to fit the facts about indeterminacy, is that an entity is tall just in case it has (some) tallness. The things that have tallness also have shortness, and intuitively, we can say, with Plato, that when one entity A is more tall than another entity B, it is the shortness of B and the tallness of A that makes this the case. Shortnesses and tallnesses should be construed as individuals, but in a category other than substance. Your tallness is akin to your facial expression—a dependent individual.

Is such an account metaphysically irresponsible? That depends on how we construe metaphysics. For a Davidsonian, who, for instance, takes beliefs and desires to be real even though they are not reducible to physical properties, metaphysics need not produce a single underlying domain of objects from which all other objects are constructed in a systematic way. For a Davidsonian, following Quine, being supervenes on truth, rather than the other way round. So metaphysics proceeds by taking true sentences and figuring out what they claim exists. John's tallness, if it must exist in order for true sentences to be true, exists. Without the requirement that existents have to be systematically related, the "metaphysics" of the world can be quite rich. Such entities as shadows can exist without there being a definition of "is a shadow" in the terms of the (alleged)<sup>29</sup> ultimate physical predicates. Briefly, if we do not require reducibility, different kinds and levels of objects can overlap without getting in each other's way. A Davidsonian needn't follow the Quine in the idea that Unified Science provides the only certification for worthy predicates.

---

<sup>29</sup> See Jonathan Schaffer's, "Is There a Fundamental Level?" *Nous* vol. 37 (2003) pages 498-517.

So being tall, while not unusual, is not trivial either. what does it take for “John is tall” to be true? “John is tall” is true if and only if John has tallness. “John is tall for a man” is true if and only if John has a tallness that is for the class of men.”

## VI More

A further problem with treating “tall” as a one-place predicate is that the relationship between “tall” and “taller than” must be accounted for. The natural and traditional move, of making “tall” itself a two-place relation, leads to theories with occult argument places when dealing with sentences such as “John is tall.” So some other tactic is required.

If “tall” is a one-place predicate and “taller than” is formally connected with “tall,” then the “er” morpheme is an independent predicate that indicates “more” with one-syllable words. That is, “taller than” is a form of “more tall than.” The fundamental comparative predicate, underlying all comparatives on a Cappelen-Lepore account, is “more,” corresponding metaphysically to the Indefinite Dyad. “Comparative adjectives” that is, are not literally themselves comparative, rather they refer to properties that admit of degrees.

Since those properties admit of degrees, they can be ordered in several ways. The property-degree present in an individual may be assigned a number, in the case of well-ordered properties that allow metric scales. The intervals between the property-degrees present in pairs of individuals can be assigned numbers in the case of properties that allow interval scales. Most basically, the property-degrees can be present in different objects can be ordered by what appears to be a “more-than” relation.

If “more” is a two-place relation, though, the program of Cappelen and Lepore is in trouble. When we are deciding about our NBA draft choices, and I say “Smith is quicker, but Jones is taller,” then if “quicker” and “taller” incorporate a two-place relation, there are unarticulated constituents that are filled-in by context. If that is the case, then one might as well allow unarticulated constituents in “Fred is tall.”

In the same way, “more” itself occurs without an apparent second argument, as in, “Joe is the sort of person who always wants more,” and “John got more last week.” If there are no unarticulated constituents, these sentences have to have truth values with just one argument.

Can “more” be construed in a way that does not require unarticulated constituents? Here is one way: For purposes of discussion, let us construct a mini-theory of “more” that will comport with Cappelen and Lepore’s treatment of “comparative adjectives” without generating ineliminable hidden constituents:

“More” has a number of features<sup>30</sup> that should be part of the theory:

- 1) “More” applies to mass- and count-nouns as well as to adjectives. More Fords than DeSotos have been built. More rice than millet is produced in China. Fred is more supercilious than John.
- 2) When “more” is applied to mass nouns, “much more” produces an expression to which “very” applies. Expressions to which “very” applies are typically comparative adjectives themselves. “Much” seems to convert a comparative relational predicate to a comparative adjective. We have “very much more rice” but not “very more rice than millet...” Just as we have “very tall” and “very much taller than” but not “very taller than.”

---

<sup>30</sup> There is of course much more to account for with “more.” A theory should be able to accommodate “some more” as well as “much more” and “many more.” Extension of the mini-theory below need to be made for “A loves B more than C loves D” and “A loves B more tenderly than C loves D.”

3) When “more” is applied to count nouns, “many more,” apparently a quantifier expression, is the appropriate intensifier, rather than “much.” So we have “Many more frogs than salamanders are aquatic,” but “Much more frog DNA than salamander DNA contaminated the specimens.”

4) “John is more obnoxious” and “John is taller” must express propositions.

A natural way to treat these facts about “more” relation is to start with the hypothesis that “much” and “many” are parallel kinds of constructions. So, if “many” is a quantifier, so is “much.” If “much” is a quantifier, there must be something to quantify. What kind of thing can the “more” be?

Plato once again gives us some hints. The Great-and-Small seems to be another characterization of what Plato calls “Difference” in the *Sophist*. Difference is differentiation, the ontological correlate of numerical and quantitative distinctness. When one entity A is taller than another B or when A is more obnoxious than B, there is an excess along the respective dimensions. An excess is a quantity and quantifiers are appropriate.

If “more” is one-place predicate, then the “than” that occurs in “There is more rice than wheat in China” and in “John is taller than Fred” can be an independent predicate. The idea of the following analysis is that a “more” sentence expresses the existence of an excess. In “John is taller,” the excess is of John’s tallness. In “John is taller than Fred” this excess which is of John’s tallness is than Fred. The alternative, to treat “John is taller” as concealing a quantified “than something” would not fit the Cappelen-Lepore program.

A possible logical form of “Joe is taller than Fred” would then be  $ExEyEz(\text{Excess } x \wedge \text{Tallness } y \wedge \text{Tallness } z \wedge \text{Of}(y, \text{Joe}) \wedge \text{Of}(x,y) \wedge \text{Of}(z,\text{Fred}) \wedge \text{Than}(x, y, z))$ .<sup>31</sup> “Joe is much taller than Fred” would then add another conjunct, “ $\dots \wedge Mx$ ”, saying that the excess is much. “Much” is itself a comparative predicate that characterizes excesses, so we would expect that it could be intensified by “very,” and that we would have “Joe is very much taller than Fred.” The “more” sentence just expresses the *existence* of an excess, an off-or-on phenomenon. But excesses themselves are quantities that admit of degree, and can be much or very much.

Excesses are entities, just as tallnesses are. Tallnesses and other conditions, given that they are entities, can themselves have conditions. Some verbs seem to be comparative predicates, for instance “loves.” “Adam loves Beth more than Charles loves Doris” says there is an excess of Adam’s condition of love directed at Beth over Charles’ condition of love directed at Doris. “Adam loves Beth more tenderly than Charles loves Doris,” on the other hand, says there is an excess of tenderness of Adam’s love condition over the tenderness of Charles’ love condition. (“More often” would of course refer to events rather than conditions.) It is clear though, that Adam might love Beth more than Charles loves Doris, while Charles loves Beth more tenderly than Adam loves Beth. Logical forms should be routine.<sup>32</sup> “Much more” and “very much more” would likewise be routine.

---

<sup>31</sup> Alternatively, we could try to construct an account in which the excess was between Joe’s tallness and Fred’s shortness, if we want to get an account that exactly matches the *Phaedo*.

<sup>32</sup> Here they are, anyway: “Adam loves Beth more than Charles loves Doris”:  $ExEyEz(\text{excess } x \wedge \text{loving } y \wedge \text{loving } z \wedge \text{by}(y, \text{Adam}) \wedge \text{of}(y, \text{Beth}) \wedge \text{by}(z, \text{Charles}) \wedge \text{of}(z, \text{Doris}) \wedge \text{Of}(x, y) \wedge \text{Than}(x,y,z))$   
 “Adam loves Beth more tenderly than Charles loves Doris”:  $ExEyEwEzEv(\text{excess } x \wedge \text{loving } y \wedge \text{loving } z \wedge \text{by}(y, \text{Adam}) \wedge \text{of}(y, \text{Beth}) \wedge \text{by}(z, \text{Charles}) \wedge \text{of}(z, \text{Doris}) \wedge \text{tenderness } w \wedge \text{tenderness } v \wedge \text{of}(y,w) \wedge \text{of}(z,v) \wedge \text{of}(x, w) \wedge \text{Than}(x,w,v))$

“Very,” though, raises a problem: We have to interpret “very” via speech act interpretation. “Very tall man” might mean “tall for a tall man” as what is communicated, but strictly ‘very’ is just an intensifier like “really.” In earlier work,<sup>33</sup> I postulated that “very” had a systematic effect on the truth-conditions of sentences. Roughly, “very” was an iteration of the comparative adjective, so that a very tall man was a man who was tall for a tall man. The explanation of why we have “very tall man” and “very much taller than Fred”, but not “very taller than Fred” was that “tall man” and “much taller than Fred” were both two-place predications of individuals and classes, whereas “taller than Fred” was a two-place predication of individuals.

On reflection, this seems less than convincing. For one thing, “very” comes from “vrai” and so originally meant something like “really.” “Very” intensifies any comparative predicate, of which “tall” and “much” are examples.

Why don’t we have “very more” and “very three”? A “more” sentence is true iff there exists an excess, which is either there or not. There either is or is not an excess of John’s tallness over Fred’s; John is either taller than Fred or not. Likewise, there either is or is not an excess of John’s books over Fred’s books. John’s books are either more than Fred’s or not. Likewise “three,” in “three frogs are green” characterizes the set as having the off-or-on property of being a three-set. So, we don’t have “very more” or “very three.”

However, excesses can be large or small. So John can be much taller than Fred and can have many more books than Fred. “More” is not a quantifier, but “much more” and “many more” are quantifier expressions that themselves are comparative predicates of sets and masses. So, we have “very much more” and “very many more,” just as we

---

<sup>33</sup> Wheeler, op. cit. 1972.

have “very tall.” But we don’t have “very three” because “three” is not a quantifier that admits of degree.

#### VII Conclusion:

Comparative adjectives do not, after all, demand hidden argument-places. A reasonable theory can assign truth-conditions to “John is tall,” “John is taller” and “John is more.” Apart from this conclusion, what else does this exercise indicate?

First, some generalization of Davidson’s treatment of adverbs and events,<sup>34</sup> is crucial to retaining the idea that a semantics consists of predicate-satisfaction clauses and logical forms. This device in effect makes all multi-place predicates prepositional phrases. Apparent multi-place predicates are treated as one-place predicates of some kind of entity, either events or some dependent particulars, conjoined with predicates relating that entity to other entities.<sup>35</sup>

Second, given the scope of comparative predicates, if there were no way to make them one-place, traditional Davidsonian semantics would be a dead project. Hidden arguments would proliferate to the extent that no overt sentence would have truth-conditions.

---

<sup>34</sup> Davidson, Donald, “The Logical Form of Action Sentences,” loc cit.

<sup>35</sup> One would suppose that these prepositions (the “of”’s that infect the logical forms above) are indicated often by case.