Week 5.  Nominalism I:    Abstraction, Universals, and Ones-in-Many

<u>Plan</u>:

**I.     Abstraction**:
- a)  What is abstraction?
    - i.     Frege's example: directions of lines.
    - ii.    Equivalence relations: reflexive, symmetric, and transitive.
    - iii.   Treating equivalences as identities by licensing intersubstitution of new terms.
- b)  Abstractions and Sets:
    - Are all entities introduced by abstraction sets (equivalence classes)?
- c)  Abstractness/concreteness is relative.
    - Are material objects absolutely concrete?  Are abstract objects causally inert?
- d)  Abstraction introduces new terms (singular and sortal) on the basis of old ones.
    - Does it introduce a new kind of *object* (abstract entities), about which skepticism is in order? Compare: Introducing theoretical terms by their inferential relations to observational terms does not induce an ontological difference.

**II.    Universals and Metalinguistic Nominalism**:
- a)  Medieval and recent nominalisms.
- b)  Carnap's metalinguistic approach and two problems with it:
    - i.     Claims about universals don't mention language—shown by translation issues.
    - ii.    Still invoke *linguistic* universals or properties, e.g. 'predicate'.
- c)  Ground-clearing in GE. Two bad arguments for universals:
    - i.  Predicate quantification, and
    - ii. Semantics of predicates.
- d)  Sellars's response to (b-i) is a new form of quotation: dot-quotes, using the illustrating sign-design principle.
- e)  Sellars's response to (b-ii) is a kind of *one-in-many* that is not a *universal*: distributive singular terms (DSTs).

**III.   Conclusion: Sellars's Nominalization Nominalism**:
- a)  Sellars objects to nominalizing other parts of speech: forming singular terms from predicates and sortals, as in 'triangularity' and 'lionhood'.
- b)  When does introducing new vocabulary on the basis of old vocabulary have ontological consequences?
- c)  Sellars's answer: When the method of introduction is *essentially metalinguistic*, that blocks reference by the new terms to anything that is real or in the world "in the narrow sense."
- d)  It is not clear that this stricture applies to all terms introduced by abstraction.

<u>Introduction</u>:

So far have been talking about language (social normative pragmatics in SRLG, inferential-functional semantics in IM) and mind in EPM, and metaphysics or ontology at most in connection with them.  Here the principal claim was that the distinction between observable and theoretical objects is not an ontological difference, but a semantic, epistemological, or methodological difference—a point in the philosophy of science that, in the context of Jones's understanding of mental episodes as at base theoretical postulates to explain behavior, bears on the metaphysics of the mental.

Now we begin with metaphysics in its own right.  In the philosophy of mind, we saw Sellars defending the intelligibility of mental episode talk of two kinds: thoughts and sense impressions, against the denial of the intelligibility of such talk and so of the existence of such things by what are for him the bad kind of behaviorists: philosophical or logical behaviorists such as Wittgenstein and Ryle.  He defended a more moderate *scientific* behaviorism, under the banner of the analogy:

Mind : behavior  ::  theoretical entities : observable entities.

On that basis, he accused logical and philosophical behaviorists of making the instrumentalist's mistake of denying the *existence* of mental episodes.

**But now Sellars is on the other side.  He is denying the existence of something: universals, properties, relations, and other such *abstracta* as propositions and (so) facts**.  None of these, he claims, are to be found in the world or reality "in the narrow sense."  Now there are good questions about just what this "narrow sense" is, but in general Sellars means "the world as it would be if there had never been discursive practices, persons, language."

You will have heard of **Ockham's Razor**: the maxim that "entities must not be multiplied beyond necessity."  Perhaps you have not heard of "**Plato's beard**": the issues that are liable to tangle up Ockham's Razor, and make it not shave clean.

This is the challenge of making sense of *nonexistence* **claims**—the danger of ending up committed to what you say does not exist having *some* sort of being (say "subsistence") so that you can say what it *is* that does not exist ("in the narrow sense") is what Quine called "Plato's beard."  (Should it be "Parmenides' beard"?).

The Austrian philosopher Franz **Brentano**, who brought the Scholastic notion of <u>intentionality</u> back into modern philosophical discourse, focused on the fact that while I can **praise** or **think about** John when he isn't here, I can't **shake his hand** when he isn't here.  And further, I can **search for** a treasure that does not exist, but I can't **weigh or transport** a treasure that doesn't exist.  The objects of our thoughts, he says, have "intentional inexistence."  They exist merely in our representings, or as represented.

His student Alexius **Meinong** radicalized that line of thought by talking about the wider realm of objects of thought, things we can think about or have beliefs about, which includes a golden mountain (a mountain made of pure gold), as things that '***subsist***'. And he could then ask **what distinguishes among the subsistent things, the things we can think about, the proper subset of them that, in addition to subsisting, also exist**. And after all, I can be confused, and *think* that something exists, when it only subsists. Sometimes, I can't tell the two statuses apart.

Many have suspected that at this point, things have gone badly wrong. But just how? **Meontology** is the study of nonexistence. That is the issue of Plato's beard.

Here again, the counsel of wisdom is **antidescriptivism**: worry first about what you are *doing* when you deny that something does not exist, rather than starting with trying to understand what you are *saying* when you do that: how you are describing things as being, how you are representing the world.

In this case, you are (dare I say it) not *undertaking* a distinctive kind of commitment (to a weird sort of state of affairs or description), but ***withholding* an existential commitment**. Meinongian talk of 'subsistence' and 'intentional inexistence' and their analogues is pure descriptivism.

**Nonexistence claims are to existence claims as 'looks' talk is to 'is' talk.**

In saying that something (the golden mountain, the present King of France) does not exist, one is *not* classifying it as being of a certain kind, merely subsistent, any more than in saying how things look one is describing or representing a certain kind of thing: appearances rather than realities.

**One is withholding commitment to its existence, not describing it as being a special kind of thing.**

Lesson: Start with what you can say in a *pragmatic* MV, rather than jumping right into a representational *semantic* MV.

I think it is for this reason, because of this antidescriptivist diagnosis of the underlying mistake, that **Sellars is properly not worried about Plato's beard** in articulating his nominalism.

**Abstraction and Nominalism about Abstract Entities**:

    a) What is abstraction?
        i.      Frege's example: directions of lines.
        ii.     Equivalence relations: reflexive, symmetric, and transitive.
        iii.    Treating equivalences as identities by licensing intersubstitution of new terms.
    b) Abstractions and Sets:
            Are all entities introduced by abstraction sets (equivalence classes)? C) c)
    c) Abstractness/concreteness is relative.
    Are material objects absolutely concrete?  Are abstract objects causally inert?
    d) Abstraction introduces new terms (singular and sortal) on the basis of old ones.
        Does it introduce a new kind of *object* (abstract entities), about which skepticism is in order?
        Compare: Introducing theoretical terms by their inferential relations to observational terms does not induce an ontological difference.

Considering that philosophy is widely believed to be a discipline that deals principally (and some would say, exclusively) with abstractions, many philosophers don't think a lot about what an abstraction *is*.

The first thing to realize is that **abstraction is a *process***, **it is something one *does***.

We can understand that process in three steps:

- It is **a way of introducing new terms**, both singular and sortal, on the basis of terms already used in some antecedent vocabulary.
  The use of the new vocabulary is supposed to be completely determined by the use of the old—literally, to be a *function* of it.
- Abstraction starts with some ***equivalence relation*** on the old domain of objects.
  Equivalence relations are **reflexive, symmetric, and transitive**.
- It then **treats equivalence** according to that relation **as an identity** on the new objects.
  As Frege teaches, the expressive function characteristic of identity statements is to **license intersubstitutions** (*salva veritate* or *salve consequential*) of the terms flanking the identity sign.

**Abstraction** in General:

    a) **Frege's example**: lines plus parallel→**directions**.

In his *Grundlagen*, Frege considers lines in a Euclidean plane, with the relation of *being parallel* defined on them.

It is an equivalence relation, because every line is (trivially) parallel to itself, if A is parallel to B, then B is parallel to A, and if A is parallel to B and B is parallel to C, then A is parallel to C.

Then we can introduce the new concept of the *direction* of a line, according to the identity:

        The direction of A = the direction of B  iff  A is parallel to B.

We introduce the new *sortal* kind 'directions' with a principle of identity and individuation for individual directions, picked out by singular terms of the form: 'the direction of X'.

To have singular term, must have **criteria of application**, and **criteria of identity and individuation**.

*Directions* inherit these from the criteria of application and of identity and individuation of *lines*. The result is that if you know how to use 'line'-talk and 'parallel'-talk, then you know how to use 'direction'-talk. You can now talk about the direction of the Earth's axis.

In mathematics, as soon as we have introduced some new objects by abstraction from some old ones, we define an equivalence relation on the new ones, and perform a further abstraction: building to the sky.

  b) **Abstraction and sets**.
There is a temptation to identity the objects referred to by the new terms introduced by abstraction with *equivalence classes*: the set of all things that stand to one another in the equivalence relation used to define the new terms. Then directions are just sets of parallel lines. On that line, **all terms introduced by abstraction are sets**.
So there really is just *one* kind of abstract entity: sets.
'Set' becomes the genus of 'abstract object'.
But **this move is *optional***. In understanding the introduction of objects as abstract relative to others, one is not thereby *committed* to identifying them with equivalence classes, hence sets. One is only committed to individuating them exactly as finely as such equivalence classes.

One difficulty with that line is that we can also understand *sets* as introduced by abstraction, using some such equivalence relation as 'co-membership'.

  c) **Abstract/concrete is on this account a *relative* distinction**.
This is a way of introducing new terms (objects) relative to some antecedently introduced (available) ones, that count as 'concrete' *relative to* this process or procedure.
         In fact, the line that is the *Earth's axis* might itself have been introduced by abstraction from specifications of points inside the Earth, by appeal to the equivalence relation that two points stand in if both are left unmoved by the Earth's *rotation*.
         Since there can be hierarchies, where things higher up are defined by abstraction from equivalence relations on things lower down, the things they are defined from will be *concrete* relative to that process of abstraction. Things higher up will be *more abstract than* things lower down.

  d) Are material things ultimate *concreta*?
The status of the terms on the basis of which one introduces new ones presumably matters for some issue (and ideologies). What sort of privilege do "material objects" have as being not merely *relatively* concrete (that is, concrete relative to some terms introduce by abstraction from them) but *absolutely* concrete ('concrete' in an absolute or non-comparative sense)? Does it matter here that I can be trained to perceive various kinds of *symmetry*, for instance? That is a

kind of perceptibility-concreteness.  But surely I can also see (at least, Bobserve) not only lines, but their directions?

e) Candidates for things introduced by abstraction that might turn out to be identical to 'concrete' things: **fields**, and s**ymmetries**.

Fields are causally efficacious.

Fields are assignments of something to points in a manifold: to begin with, a plane or a space. Scalar fields assign a number or other magnitude—for instance, the strength of an electromagnetic or gravitational force.  Vector fields assign vectors that also include a direction as well as a magnitude.  And tensor fields assign more complex items.

Fields are very abstract, but they are invoked in causal explanations in physics all the time.

Symmetries are explanatory, replacing laws (by reformulating them).

This is one of the structural differences distinguishing twentieth (and twenty-first, so far) century physics from nineteenth-century physics.

Van Fraassen on *Laws and Symmetry*.

These questions about the metaphysics of abstracta are not a million miles away from trying to understand the sense in which mathematics is the native language of a distinctive kind of understanding (at least one 'gold standard').

f) **The genus that matters is: methods of introducing new terms (singular and sortal), new vocabulary, based on old terms (vocabulary)**.  One can think about set theory as exploiting one way of doing that, and mereology another. (And megethology yet another.). Can one construe category theory as a general theory of doing that?  At any rate, type theory is a way of theorizing exactly that process.  That is what makes its peak of perfection, homotopy type theory, potentially so interesting.  But, along the way, Martin-Lof's intensional type theory is a useful intermediary.  We would like to know in general, what is the relation between the ways we introduce new terms, the old terms we start with, and any ontological-metaphysical conclusions about the objects referred to (if any) by those terms.  My inclination is to think that if the inferential roles of the new terms are fully determined (Frege's difficulties with complex numbers show that 'fully determined' is a fraught condition), then there ought to be no ontological questions left over.  At least from a subject-naturalism point of view (de-naturalized): everything one wants or needs to say in a pragmatic MV is settled.

The important thing is to draw lines between different senses in which things can exist, without invidiously privileging some of them as 'real.'  One such sense is 'material objects' or 'material reality.'  This really is the important point: to draw lines, specifying circumstances of doing so and consequences of doing so.  Reducing all this to "what is real?" is just silly—has historical causes, but not reasons.. Insofar as there is a single question, it is

whether, in addition to whatever story one tells in a pragmatic MV about what one is doing in using a kind of expression, it is worth understanding what one is *saying* in doing that in representational terms, specifying truthmakers. That can be true for mathematical or abstract-object claims as much as for material-object claims.

g) Here we come to **the main point** of the discussion of abstraction:
There is a substantial difference between:

    i.      A distinctive way of introducing new terms (singular and sortal), and

    ii.     A distinctive kind of *thing* and *kind* of thing, referred to by those new terms.

That one shouldn't run these together was exactly the lesson of Sellars's well-taken rejection of instrumentalism about theoretical objects: **the observable/theoretical distinction concerns how we *know* about, or *justify claims* about objects.**
**It does *not* mark an *ontological* difference between fundamentally different *kinds* of things.**
Now we are concerned with a distinction between **terms that are introduced by abstraction**, on the basis of terms that already have a use, and those that are **not introduced this way**.

    **It is not *obvious* that what one is doing is introducing a special class of *objects*: *abstract* objects**. For this is a way of *introducing* these objects. But perhaps the very *same* objects are available in other ways. **Compare: objects that are available either by observation or by inference**.
Note: Identifying all objects introduced by abstraction with *sets* of the more concrete objects in terms of which they are introduced *does* commit one to thinking of them as all of one kind (abstracta, not concreta).
So: **I want to resist talk about "abstract objects" as a *kind* of object**, in favor of "objects [or better yet, singular terms] introduced by abstraction," because the other way of talking begs important substantive questions. (Cf. "bananas").
No-one is an instrumentalist now. But…never say never about philosophical views. Van Fraassen's empiricism looks a lot like instrumentalism about theoretical entities.

Compare: introducing directions from lines by relation of being parallel to **introducing the *ancestral* of a relation**, paradigmatically ancestor, from parent. That is a different operation from abstraction, but in some sense the constructions are parallel. But are relations that *can* be defined as ancestrals of other relations really different *in ontological kind* from the relations of which they are the ancestral? Sur-people: Same surperson iff persons have the same surname.

Transition: Talk of **universals** is narrower than talk of *abstracta*.
In particular, *propositions* are introduced by abstraction, but they do not have *particulars* as *instances* in the way in which properties have particulars as instances.
They are not in that sense "one's in many," as Sellars will say.
But it will help to follow Sellars in addressing the narrower, more traditional issue first.

**II.     Universals and Metalinguistic Nominalism**:
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    iii.     Claims about universals don't mention language—shown by translation issues.
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c)  Ground-clearing in GE. Two bad arguments for universals:
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    ii. Semantics of predicates.
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Universals:
a)  Medieval:
    I can safely use these avatars:
  i.     **Scotus—realism**
Universals are real and objective, as much a part of the world as particulars.
Realism, and for that reason Scotus, were *very* important for Peirce.  Like Armstrong, it was for him tied up with *modal* realism.  Sellars identifies as a core *rationalist* position belief in "real connections," by contrast to empiricist skepticism about them.  He wants a *via media*.
  ii.     **Ockham—nominalism**
Universals do not exist.  All there is is our 'names' for them: predicates.
Respects of similarity simply reflect our linguistic practices, which get projected onto the world.

  iii.     **Abelard—conceptualism**
Universals are real, but in the mind.  Quine identifies *intuitionism* as the TwenCen analogue in the philosophy of mathematics, about *abstracta* more generally.

There are basically four principal strands of thought in the ontological nominalist controversy, as far as I can see:
a)  **Goodman and Quine**'s original horror of the ontological excesses of **set-theory**.
    I think they identify all abstract objects with sets, in the form of equivalence classes.
    It is, I think, based on recoiling from two features of set theory.
    i.     Forming **unit sets**, which distinguishes a from {a} from {a,{a}} and {{a}}.
    ii.    **Pure** set theory, **which builds everything out of the empty set**.  Here the problem is that if I take the set containing my wedding ring, and remove the ring, I get the empty set $\emptyset$.  And if I take the set containing the number 3 and remove 3, I get the *same* empty set, $\emptyset$.
    iii.   Putting these together, we get the progressions $\emptyset$, $\{\emptyset\}$, $\{\{\emptyset\}\}$, $\{\{\{\emptyset\}\}\}$… and also the different progression $\emptyset$, $\{\emptyset,\{\emptyset\}\}$, $\{\emptyset, \{\emptyset,\{\emptyset\}\}\}$…  These are in one

sense isomorphic with the natural numbers, but they are quite different sets. This raises Benacerraf's counterclaim in "What Numbers Could Not Be."

Quine talks self-deprecatingly about his objection to this profusion being due to "a **taste for desert landscapes**."

But in fact he saw as a **Lovecraftian horror** (multiplying brackets like the tentacles of an ancient, terrifying evil).

**Mereology, as the "logic of parts and wholes" is a principal response to these excesses**.

If we start with actual, concrete things, A and B, we can put them together to get the whole A+B or A°B. But we don't get something different by putting in A again, or putting in A twice. We just get the same whole A°B.

b) **Quine, parting company with Goodman** and recanting his earlier nominalism, does so because of **the "indispensability argument**." This is that numbers and mathematical entities generally seem indispensable for natural science, especially the most mature forms of fundamental physics. Whatever we must *postulate* to endorse their results we should postulate, as theoretical entities. (Cf. Sellars in "Empiricism and Abstract Entities".)

c) Much contemporary work on universals is downstream from David **Armstrong**'s 1978 *Universals and Scientific Realism* and his 1989 *Universals: An Opinionated Introduction*, which does not discuss Sellars's views (he is mentioned once, in passing).

**Armstrong, is different from Quine and Goodman in taking *modality* seriously**. He accordingly, unlike them, is *not* working in a Humean *empiricist* framework. (Well, by mid-50's, Goodman, too, takes modality seriously, but is a Humean pragmatist about it in *Fact, Fiction, and Forecast*, looking to entrenchment in our discursive practices. Blackburn's expressivist quasi-realism is his real successor here.)

**Armstrong identifies *universals* with *roles w/res to laws*, or, better, subjunctive conditionals.**

Contemporary **trope theory** reaches its acme with Mormann's group in Munich, in their use of mathematical sheaf theory to formulate trope theory. (See John Bacon's article in the Stanford Encyclopedia.)

Sellars and his views are, as far as I can see, totally ignored in the contemporary discussions. An interesting enterprise would be to bring his apparatus to bear on the issues of universals as treated in contemporary analytic metaphysics.

d) **Sellars's metalinguistic nominalism**—which is largely absent from contemporary discussions. He has another way of discerning ones-in-manys that are not either universals or sets. This means, in his slogan, that are not something set over against (of a different ontological kind than) its *instances*.

Basically, what he appeals to and uses instead is *plurals*: lions, instead of lionhood. His preferred form is the DST "the lion," but the effect is that of plurals. Cf. Boolos's logic of *plural quantifiers*.

e) We can then see a fifth, currently active approach: **David Lewis's *megethology***. It is the combination of *mereology* and Boolos's *plural quantifiers*.

**b) Carnap**

Can think of the **setting** WS is working in in four parts (1,2,3,4), putting him in a position to **do things the medieval could not do** in the hundreds of years they devoted to this problem:

1: **One** overarching idea: Carnap's from *The Logical Syntax of Language* (1934 in German, 1937 in English): to say that

**L: triangularity is a property**,

is a way of saying in the material mode, the object language, what is said more perspicuously in the formal mode, in the metalanguage, as

**"'triangularity' is a monadic predicate."**

Sellars will develop this into his *metalinguistic expressivism* (here, about ˢabstract objectsˢ, but elsewhere about modality) a view with affinities to second-wave metaethical expressivism of Blackburn and Gibbard (an affinity which WS was not in a position to appreciate), but with the distinctive Carnapian metalinguistic turn that makes it quite different from affective or attitudinal expressivism.

    c) **Two** great challenges or objections that that Carnapian idea faces:

        i.       **Statements about universals don't mention linguistic expressions**;

Can see this by looking at *translations*, which Carnap's account gets wrong.

(GE Section V): "Indeed, it is apparently open to a simple and devastating objection. How can 'Triangularity is a quality' (11) have something like the force of '"Triangular" (in English) is an adjective' ($11^2$) in view of the fact that (11) *makes no reference to the English language*? [156]

The translation of "**triangularity is a property,**" is "Dreieckigkeit ist eine qualität."

"Again, how can the truth of (11) be ascertained by reflecting on the use of the word 'triangular' if, were a German to say

(78) Dreieckigkeit ist eine qualität, aber es gibt keine Englische Sprache,

his colleagues would recognize that his statement was only contingently false? [157]

        ii.      **Just trade *nonlinguistic* universals for *linguistic* universals, so instead of a nominalism one gets a kind of linguistic idealism**.

On (8a): "But surely, it will be said, the word 'triangular' is just as abstract an entity as triangularity. Where is the 'nominalistic' gain? Is not the term '"triangular"', as much a singular term as 'triangularity', and 'adjective' as much a common noun as 'quality'?" [GE 149]

Aside: Repeatables/nonrepeatables. This can mean general or universal versus particular (corresponding to the distinction between the use of or what is expressed by predicates and singular terms—but what about sortals?), roughly the traditional "general vs. individual concepts." But also to type-constant versus token-reflexives. (Really, token*ing*-reflexives.) McD denies that the type/token(ing) distinction applies to things that do not have *vehicles*. For it concerns repeatability of vehicles vs. contents.

But even in universal/particular there are subtleties: don't assume a genus/species structure of repeatability. W. E. Johnson on determinables/determinates, such as color/red and red/scarlet,

where there are no "differentia" statable apart from re-using the species to state the specific difference.

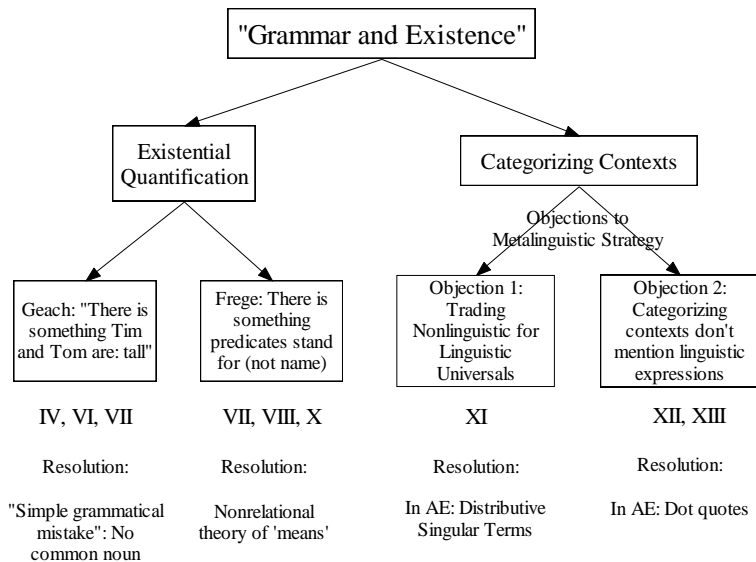We'll look at these two issues sequentially.

d) **Solution to the first issue**: statements about universals, using singular terms like 'triangularity' and sortal terms like 'property', are not *metalinguistic* in the sense that they essentially involve linguistic expressions that refer to expressions in an *object language*.

The solution is to introduce **dot-quotes**, which are
i. Sortal terms, (Frege *Grundlagen* story about sortal terms, predicates, and terms: add criteria of identity and individuation to circumstances and consequences of application.)
ii. Serving as functional classifiers (Texas chess),
iii. Formed using the **illustrative sign-design** principle. This is a peculiar form of quotation

'Dreieckig' is a ·triangular· and

·triangular·s are monadic predicates.

e) [Put here material from Topics from "Grammar and Existence" (1958)]

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                        "Grammar and Existence"
                         /                \
                        /                  \
               Existential              Categorizing Contexts
              Quantification                     |
                /        \               Objections to
               /          \            Metalinguistic Strategy
              /            \              /            \
   Geach: "There is   Frege: There is  Objection 1:   Objection 2:
   something Tim      something        Trading        Categorizing
   and Tom are: tall" predicates stand Nonlinguistic  contexts don't
                      for (not name)   for Linguistic mention linguistic
                                       Universals     expressions

   IV, VI, VII        VII, VIII, X        XI             XII, XIII

   Resolution:        Resolution:      Resolution:     Resolution:

   "Simple grammatical Nonrelational   In AE: Distributive  In AE: Dot quotes
   mistake": No        theory of 'means' Singular Terms
   common noun
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A bit of ground-clearing first:
The two *bad* reasons to worry about universals or properties that Sellars discusses in the first half of GE, only to put aside, are:
i. One can quantify over them: "There is something Tom and Anna both are: tall." And

ii.     They are what is represented semantically by predicates: part of how one is describing the world as being.

For the first (i), **predicate-quantificational point, is response is that 'tall' is still a predicate.**

**To understand such quantification one need not introduce *also* the predicate nominalization, the singular term 'tallness', which is what is a property**.  That is where Sellars draws the line, excluding the idea that there is some *thing*, some *object*, ultimately, some *particular*, the sort of thing properly referred to or represented by a singular term (falling under the sortal term 'property').

**For the second (ii), semantic point: this line of thought just presupposes descriptivism**—that what one is *doing* in using a predicate is to be understood as representing (describing, classifying) some *thing*.  Ultimately, his introduction of Jumblese as a perspicuous *descriptive* language will not presuppose that predicates *stand for* or *represent* a special kind of entity.

In using a predicate or classificatory expression, one is not *representing* something, in the way whose paradigm is *naming*—the relation between the word 'Fido' and the dog Fido.

One is *doing* something else, namely (as we find out in NS), *saying* something *about* what is (properly) nameable.  We can understand that as classifying it.  But classifying particulars is *not* to be understood as relating them to *another kind of thing*: properties or relations.

Here all we need is the *negative*, antidescriptivist point: don't assume the proper function of these expressions is to represent how things are, in a 'Fido'-Fido way whose paradigm is the use of singular terms to pick out *things*—which might then turn out to be of odd and different kinds.  The positive view, of what one *is* doing, if not representing *things* of some kind.  Can wait.  (In general, Sellars's meaning-as-functional-classification view, as made more precise by the metavocabulary of dot-quoted expressions, will be wheeled in here.)

First half of GE is putting to one side two reasons and sorts of examples justifying them that have led people to Platonism about universals.  The point of all this is to justify Sellars only addressing the "classifying contexts" of the form "triangularity is a property," that he will respond to constructively.  Criteria of adequacy for doing that are responding to the two big objections to Carnap's account: a) "triangularity is a property" is not about language, certainly not about English, and b) going metalinguistic only trades the genus *universal* for a species: *linguistic* universals.  In AE, Sellars responds to these concerns, showing how to fix up Carnap's account by dot-quotes and DSTs.

So I should give short shrift to the first half of GE.

Redundant:
The first half of GE considers two arguments:
i.     Quantification over predicates.  But this does *not* introduce singular terms or sortals.  So it is not an argument for universals as objects.  Here Jumblese is part of WS's response.  But here, too, ultimately the argument comes down to his complaints about nominalizing other parts of speech.  This way of *introducing terms* is not to be given *ontological* significance.

    ii.        Predicates represent something, or they would not mean anything. Universals are what they represent. (This argument will be dealt with at length in "Naming and Saying.")  But this is descriptivism.  His argument is pragmatic and antidescriptivist.  Look at what one is *doing* in predicating: one is claiming.  Do not assume that what one *says* in *doing* that is *naming* something.

                There are three things I want to say about this:

        A)    This argument does not consider *embedded* predications.  We need an account of their use, which cannot be *directly* derived from an account of what one is doing in using them *free-standing*, that is, in a use that carries the pragmatic *force* of assertion.  (Cf. Kant).

        B)    He will give his meaning-as-functional-classification response (dot-quotes), as an alternative account of what one is *doing* in making meaning claims.

        C)    This argument ultimately comes down to Sellars's complaints about *nominalizing* other parts of speech.


Move to classifying contexts, Carnap's response, and its dual inadequacies.
Then on to Sellars's constructive response, most satisfyingly in AE.


Text:

In *NS*, WS addressed the suggestion that 'Fa' should be read as 'a exemplifies F-ness'.  *GE* addresses "categorizing contexts": 'F-ness is a quality'.  It offers a *metalinguistic expressivism* about them (WS's "syntactic strategy", taken from Carnap).  *GE* then further addresses the principal objections to Carnap's flat-footed version of the strategy.

    Plan of the essay (from Section XIV):
"I began by arguing that 'existential quantification over predicate or sentential variables' does not assert the existence of abstract entities. [This is (2) below, which takes us through Section X.]  I then suggested that if the only contexts involving abstract singular terms of the forms 'f-ness', 'K-kind', and 'that-p' which could not be reformulated in terms of expressions of the forms 'x is f', 'x is a K', and 'p' were categorizing statements such as 'f-ness is a quality', 'K-kind is a class', 'that p is a proposition', then we might well hope to relieve Platonistic anxieties by the use of syntactical therapy. I then examined a context which has been thought to correlate words with extralinguistic abstract entities, namely the context "—' (in L) means …', and found that it does not do so. Encouraged by this, I proceeded to examine the distinction between the material and the formal modes of speech to see if the idea that such categorizing statements as 'Triangularity is a quality' have the force of syntactical statements such as '"triangular" is an adjective' can run the gauntlet of familiar objections, with what I believe to be hopeful results." [This takes us through Sections XI to XIII (XIV and XV first summarize and then point forward).] [161]

The roadmap for the first part of the essay (up through Section X) is set out like this:

"Now it is important to realize that Geach gives *two* accounts of the term 'property'; one of which, though cautious, is based on a simple grammatical mistake, while the other is derived from Frege's account, and is more difficult to expose.
a) The cautious account is contained in the passage quoted above, in which he stipulates that 'property' is to be equivalent to 'something that an object is or is not'.
b) The Fregean account is the one in which properties are introduced as *what predicates stand for.*" [138]
In effect, the thought of (b) is to introduce properties and concepts as what predicates *mean*.
In each case WS's objection is of the same general form:
"And can we not therefore legitimately introduce the common noun 'concept' as having the force of 'something which a predicate stands for'? The answer is, as before, No; not, however, because it is incorrect to say that there is something which 'triangular' stands for (or *bedeutet),* **but because the expression 'something which a predicate stands for' like the expression 'something which an object is or is not' does not play the sort of role which would make it proper to introduce a common noun as its stipulated equivalent**." [143]
Specifically, however, he thinks this is *easy* to see for (a), and *hard* to see for (b).

**The Main Business of II**:

1.        Answering the first objection a Carnapian metalinguistic account of universals: dot-quotes using the *illustrative sign-design* principle.
2.        Answering the second objection a Carnapian metalinguistic account of universals: nominalistically acceptable one-in-many are, basically, *plural sortals*, 'the lion' understood as a way of talking about lions.

Response to First Difficulty with Carnapian Metalinguistic Account:

Statements about universals don't mention linguistic expressions;
Can see this by looking at *translations*, which Carnap's account gets wrong.
(GE Section V): "Indeed, it is apparently open to a simple and devastating objection. How can 'Triangularity is a quality' (11) have something like the force of '"Triangular" (in English) is an adjective' ($11^2$) in view of the fact that (11) *makes no reference to the English language*? [156]
The translation of "**triangularity is a property,**" is "Dreieckigkeit ist eine qualität."
"Again, how can the truth of (11) be ascertained by reflecting on the use of the word 'triangular' if, were a German to say
(78) Dreieckigkeit ist eine qualität, aber es gibt keine Englische Sprache,
his colleagues would recognize that his statement was only contingently false? [157]

Solution to the first issue: statements about universals, using singular terms like 'triangularity' and sortal terms like 'property', are not *metalinguistic* in the sense that they essentially involve linguistic expressions that refer to expressions in an *object language*.
The solution is to introduce dot-quotes, which are
>    i.        Sortal terms,  (Frege *Grundlagen* story about sortal terms, predicates, and terms: add criteria of identity and individuation to circumstances and consequences of application.)
>    ii.        Serving as functional classifiers (Texas chess).  'Dreieckig' *plays the '...is triangular' role*, but in German.
>    iii.        Formed using the **illustrative sign-design** principle.

This is a peculiar form of quotation.
-    The key point is that **what goes inside the dot-quotes is always in the language of the sentence containing the dot-quoted expression**.

The dot-quoted expression picks out a functional role (shared by many languages) by putting inside the dot-quotes an expression that plays that role *in the language being used*.
-    But, also importantly, **the dot-quoted expression is not the *name* (or a singular term designating) a functional role.  It produces a *sortal* under which ordinary quote-names can fall**.

This matters for the response to the *second* issue with the Carnapian metalinguistic approach.
'·triangular·' is like 'lion' in 'Leo is a lion':

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'Dreieckig' is a ·triangular· and

·triangular·s are monadic predicates.

***Plurals* are ones-in-many that are *not* universals *or* abstractions—according to Sellars's nominalism**.

We *can* have names for conceptual roles:

**Chad Hansen**, a specialist in Chinese philosophy (who taught at Pitt when I first joined the dept, and then in Hong Kong for many years), thought of Chinese characters as names of the roles that dot-quotes classify things under.

[Possibly tell story of the two television stations I watched in Hong Kong: Both showed the same American movie, one dubbed in Mandarin, with Cantonese subtitles, and the other in Cantonese, with Mandarin subtitles.  The subtitles were identical sets of characters.]

**Hanzi** is Chinese for what is **Kanji** (as opposed to Katakana) in Japanese.


Response to Second Difficulty with Carnapian Metalinguistic Account:

Here is the key to Sellars's nominalism.

1. The first of Sellars's botanizations of abstract entities (his most general characterization) is: "If, therefore, we can understand the relation of *the lion* (one) to *lions* (many) **without construing *the lion* as a universal of which lions are instances**; and if the looked-for singular term pertaining to pawns can be construed by analogy with "the lion"—indeed, as "the pawn"—then we would be in a position to understand how *the pawn* could be a one as against a many, without being a universal of which pawns are instances. This in turn would enable a distinction between **a generic sense of "abstract entity" in which the lion and the pawn as well as triangularity (construed as the ·triangular· ) and that two plus two equals four (construed as the ·two plus two equals four· ) would be abstract entities as being ones over and against manys** and **a narrower sense of abstract entity in which qualities, relations, sorts, classes, propositions and the like are abstract entities**, but **of these only a proper subset, universals but not propositions, for example, would be *ones* as over and against *instances* or *members***. This subset would include the kind *lion* and the class of pawns, which must not be confused with *the lion* and *the pawn* as construed above." [167]

    a) Generic sense of 'abstract entity':
        i. the lion,
        ii. the pawn,
        iii. triangularity (construed as the ·triangular· ) and
        iv. that two plus two equals four (construed as the ·two plus two equals four· )
    are abstract entities in the sense of ones over against manys.
    b) A narrower sense of abstract entity in which qualities, relations, sorts, classes, propositions and the like are abstract entities;  It follows that for Sellars, that two plus two equals four, that is, the ·two plus two equals four·, is *not* a proposition. For it does not *name* a repeatable, being a DST.

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c) Of these, only a proper subset, universals but not propositions, for example, would be *ones* as over and against *instances* or *members.* This subset would include the kind *lion* and the class of pawns (but not the lion and the pawn).

2. Section VII explains that on this account there are abstract entities that are not objects, but functions (188-9):

"1.  *The lion* is a (distributive) individual and not a kind (i.e., The •the lion• is a DST and not a common noun.

2.  Lionkind is a kind and not a (distributive) individual (i.e., The •lion• is a common noun and not a DST).

3.  *Lionkind* is a (distributive) individual and not a kind (i.e., The •the •lion•• is a DST and not a common noun).

4.  Triangularity is a quality and not a (distributive) individual (i.e., The •triangular• is a predicate and not a DST).

5.  *Triangularity* is a (distributive) individual and not a quality (i.e., The •the •triangular•• is a DST and not a predicate).

In (1), (3), and (5), we have examples of items which are objects and not functions; in (2) and (4), examples of items which are functions and not objects."

The use of italics here is explained earlier, in terms of what is *used* and what is *mentioned* in phrases such as "the lion".  From the beginning of section V:

(e) The lion is an abstract individual
(f) (The) lion is a kind
(g) The lion is a kind
(h) (The) lion is an abstract individual.

"It is, I take it, clear that in all of these statements the expression "lion" is being used *not* to refer to lions, but to refer or to be a component of an expression which refers to an abstract entity. As a crude sizing-up of the situation, we might say that "lion" is being mentioned rather than used. But what of the definite article? Here there are two possibilities: (1) it is the phrase "the lion" which is being mentioned, and (2) the definite article "the" is being *used* rather than mentioned. The second construction is indicated in the above statements by placing the definite article in parentheses."

3. On Tess (**Texas Chess**) and the relation of dot-quotes to asterisks (star quotes).

4. Exactly how is the introduction of the category of DSTs, and the identification of dot-quoted expressions as a kind of DST, supposed to alleviate the worry that nominalism just trades nonlinguistic universals for linguistic ones, and hence is a kind of linguistic idealism?  I return here to the double-barreled issue raised in (4) above:  a)  What are the motivations for Sellars's **nominalism-as-metalinguistic-expressivism**, and b)  are they satisfied by introducing **the new sort of one-in-many repeatables that are DST's formed from dot-quote sortals**?
a)
   i. Here I think one key thing is the hint at the end of Section I [recall that there is no Section III]:  (170)  "**Both the idea that qualities, relations, kinds, and classes are *not***

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*reducible to manys* **and the idea that they** *are reducible to their instances or members* **are guilty of something analogous to the naturalistic fallacy.**"

ii.  Another piece of the puzzle is Jumblese, which focuses us on *naming* and *saying*—as Sellars's title has it.

i.  The final piece of the puzzle, I think, is the remarks—scattered, but emphasized, for instance by being put at the end of each essay—about the concept of proposition being a mistaken reification of a normative kind of *doing* into kind of *thing*.

The issue here concerns the relations between a *normative pragmatics*, an account of the pragmatic *force* or what one is *doing* in *saying* something, on the one hand, and the *semantics* we give for the expressions whose *use* (itself a nominalization of the *verb* 'use'—as 'doing' is of 'do') it is that helps us *say* something (make a claim—another nominalization).  **Jumblese makes it tempting to think that the notion of property is a reification of the relation between** *naming* **or** *referring* **to something, and** *asserting* **something (itself an activity indissolubly [reciprocal sense-dependence] bound, for WS and for me, with that of** *inferring***).**

### III.    Conclusion: Sellars's Nominalization Nominalism

a) Sellars objects to nominalizing other parts of speech: forming singular terms from predicates and sortals, as in 'triangularity' and 'lionhood'.

b) Question: When does introducing new vocabulary on the basis of old vocabulary have ontological consequences?

c) Sellars's answer: When the method of introduction is *essentially metalinguistic*, that blocks reference by the new terms to anything that is real or in the world "in the narrow sense."

d) It is not clear that this stricture applies to all terms introduced by abstraction.

Nominalization nominalism:

a) First, the issue is about ways of introducing new vocabulary from old vocabulary. That is how I described abstraction: in three parts:

    i.     introducing new terms (singular and sortal) from old, by

    ii.     appealing to an equivalence relation on old ones, and

    iii.    treating equivalence in that sense as identity w/res to the new vocabulary, by treating it as licensing intersubstitution of the new terms (in some range of contexts), hence inheriting its criteria of application *and* criteria of identity and individuation from the old ones.

It is on the basis of that description that I suggested we compare *this* way of introducing new vocabulary from old to theoretical postulation, where the use of the new vocabulary is determined by *inferential* relations to old (observational) vocabulary (as well as among *new* vocabulary.  Why, I asked (overarching question) should *this* way of introducing new vocabulary *have* ontological significance—entailing the *nonexistence* ("in the narrow sense"), while drawing the corresponding conclusion for terms introduced by *inference* would be a fundamental (instrumentalist) mistake?

b) Sellars's main objection, it seems, is to introducing new *terms* from *predicates*—that is, he objects to *nominalizing* predicates, or to predicate *nominalization*.  This is forming 'triangularity' a singular term, from '…is triangular', a one-place predicate.  He then *also* objects to the corresponding *sortal* term 'property', which stands to 'triangularity' as 'lion' stands to 'Leo'.

c) But he *also* objects to nominalizing, forming terms from, other terms—at least, forming *singular* terms from *sortal* terms.  A paradigm is forming 'lionhood' from 'lion'.

d) I want to know what the *principle* is here.  Sellars seems to think that *all* of these forms of nominalization are *metalinguistic*.  As such, the *existence* of the things they refer to depends on the existence of *language*.  (This is a reference-dependence claim.)

e) He does *not* say what he thinks about other sorts of trans-categorial introduction of new vocabulary. One instance is *participles*: forming adjectives from verbs ('different' from 'differ'—which brings along its prepositions, making it 'different *from*' not 'different *than*' or, the recent English abomination, 'different *to*', since one would not use those prepositions with 'differ'). But maybe these are irrelevant, because they are not nominalizations. But what about gerunds, forming nouns from verbs: 'swimming', 'dancing'? Sellars will invoke these for processes in his late, nominalistic process ontology. They are *not* universals in the sense of having instances—as 'triangularity' and 'lionhood' do.

f) Sellars thinks that introducing terms (singular and sortal) by *nominalizing* other parts of speech—even introducing *singular* terms by nominalizing *sortals*—should *not* be given *ontological* significance. It should *not* be taken to introduce a special kind of *object* (particular or sortal-as-plural).

Doing this, he thinks, is *essentially* metalinguistic.

It accordingly does not introduce objects whose existence is independent of the existence of language (a reference-dependence relation), which is what he means by 'real' or 'in the world' 'in the narrow sense.'

a) **To go from predicate to sortal nominalizations, one needs first to form metalinguistic common nouns from the predicates. That is what one does with dot-quotes**: "…is triangular"➔ •triangular•. For now something can be *a* •triangular•. So one of the conjectures of this line of thought is that **the innovations of dot-quotes and of DSTs are intimately linked: dot-quoted expressions are sortals** (regardless of what part of speech the dot-quoted expression is) **and distributive singular terms can then be formed from them**: •triangular• allows "*a* •triangular•", and so "*the* •triangular•".

b) **Why is it progress for WS to trade *predicate* nominalizations for *sortal* nominalizations ('..is a lion'➔ 'the lion', rather than '..is a lion'➔ 'lionhood')?** His answer, I think, would be that 'the lion' still refers only to individual lions, just in a distinctive way, whereas 'lionhood' in the sense of 'the property of being a lion', is thought of as referring to something over and above the individual lions, something that is *true of* them all, something of which they are *instances*, in a sense in which they are not *instances* of *the lion*. If so, then we could ask:

   i)  Given an antecedent commitment to a kind of nominalism that insists that only particular things exist, is the DST, sortal nominalization strategy a satisfactory way of securing entitlement to that commitment, given the various challenges to it (here, principally, that one is just trading linguistic or metalinguistic universals for nonlinguistic ones)?

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ii)     **Does the possibility of using sortal nominalizations in the place of predicate nominalizations (via dot-quoting) offer any further reason or support for the underlying nominalistic commitment?**  Or does it *just* presuppose that commitment?  (See (12) below.)

Sellars and Nominalizations:
a)  In fact, **Jumblese is related to nominalization, and so to the dot-quotes plus distributive singular term (DQ + DST) alternative to orthodox abstraction**.  For Jumblese sentences are supposed to be *arrangements* or *combinations* of singular terms.  But 'arrangement' is a nominalization of the verb 'arrange', and 'combination is a nominalization of the verb 'combine'.  Does WS believe in such 'things'?  Officially, it is the *fact that* 'a' stands so to 'b' that *says that* a and b are related in some determinate way.  Talk of 'arrangements' or 'combinations' is to be paraphrased in these terms.
b)  Does Sellars have a story about nominalizations of verbs or predicates generally?  Need he have?  (See (e) below.)
c)   Notes on nominalization:
An example is the change from "The experiment involved *combining* the two chemicals" to "The experiment involved *the combination of* the two chemicals".
Some verbs and adjectives can be used directly as nouns, such as *change, good, murder,* and *use*.
Others require a suffix:
▪   applicability (from applicable)
▪   carelessness (from careless)
▪   difficulty (from difficult)
▪   failure (from fail)
▪   intensity (from intense)
▪   investigation (from investigate)
▪   movement (from move)
▪   reaction (from react)
▪   refusal (from refuse)
▪   swimming (from swim)
▪   **nominalization (from nominalize)**
▪   cause (from cause)
d)  Note that English has *gerunds* that let us nominalize verbs, whether thought of perfectively or imperfectively: make→making, do→doing, cry→crying, fail→failing….  These nominalizations are presystematically thought of as forming the names of *events* or *processes*.
Sellars seems not to object to *these* nominalizations.
Indeed, late in life he comes around to *an ontology of pure processes*.
Are these nominalistically OK because they are just common nouns that apply to particulars (something, some event, can be a crying or a doing, etc.)?
e)  If one is going to permit nominalizations (e.g. gerundive constructions), we should distinguish between **predicate nominalizations** (including sortal ones) that on the surface yield **names of *universals*** (which we are distinguishing from sentence nominalizations, which do not in the same sense have *instances*, are not 'many's in the same sense) from those that on the surface yield **names of *events* and *processes***.

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One *might* want to nominalize away the former (give a nominalistically or metalinguistically deflationary account of them) but not the latter. But what would the rationale be for such a policy?

f) **The key issue concerning the ontology of *events and processes*** (e.g. doings, swimmings, light-switch flippings) **has been one of their *identity and individuation***, which is an issue of sortalizing this kind of particular. Here, basically, **one must be either Kim or Davidson**. That is, one can either see the switch-flipping and the light turning-on as two different events, causally related (Kim), or one event, differently described (Davidson). Note that absolutists about identity, who extend the indiscernability of identical to modal properties—because one must extend it to dispositional ones—can*not* be Davidsonians. For they (we) must deny *contingent identities*. The switch-flipping might not have been the light turning-on (had the wiring been bad), but the light turning-on does not have *that* modal property. It is wrong to understand the true statement that Obama is the 44th (I think) President of the US as an *identity* claim in the strict sense, since he might not have been. Rather, that statement specifies a role he plays, something that is true of him, not an identity. For similar reasons, I am not identical to my body, or to any of my time-slices.

g) I suspect that one of the reasons WS is confident that predicate nominalizations must be disguised metalinguistic expressions (more carefully: must have a disguised metalinguistic expressive function) is that Jumblese does not need expressions for predicates. These are, at any rate, not *basic* singular terms and common nouns. [BtW: How does Jumblese represent common nouns? It is a variant of PM-ese, which does not.] But that is true of the *other* big class of predicate nominalizations, namely those that produce not 'triangularity' ("the •triangular•"), but •swimming•s. They, too, would nominalize something that in Jumblese is derivative from *facts*—which are ultimately to be given a *pragmatic*, *normative, inferential* treatment. **If 'triangularity' mistakenly *semantically reifies* such facts or normative pragmatic phenomena (so committing "some version of the naturalistic fallacy") , according to a misplaced *descriptivism* (a kind of flat-footed representationalism of the sort the *Tractatus* showed us how to avoid for *logical* vocabulary), don't gerunds and other event- and process-specifying locutions do so as well?** Sellars is, so far as I know, silent on this topic.