Aristotle’s philosophy and the problem of universals

1. The two contexts from which the problem of universals arises in Aristotle are the logical context and the “metaphysical” context, and they are in tension with each other.
   a. The correct meaning of the word “logic” for Aristotelian studies, is, in my opinion, “whatever pertains to discourse” (Greek "logos," "λόγος").
   b. The word “metaphysics,” comes from the title of Aristotle’s great work, “TA META TA PHYSICA,” “ΤΑ ΜΕΤΑ ΤΑ ΦΥΣΙΚΑ, but he does not call the subject that, but rather “first philosophy,” or “theology.”

2. The logical works that seem most pertinent are Categories, On Interpretation, and Topics. The name On Interpretation is obscure, and in antiquity this work was sometimes titled, more appropriately, On Propositions.

3. Some important terms from these works (this list has circularity):
   a. Being: can be defined only by the hierarchical list of the categories.
   b. Thing (Gk. pragma, πράγμα): a vaguer term than “being,” for anything that can be spoken of.
   c. Individual being: a being that is one in number.
   d. Name: most broadly, any part of language that signifies or points to a being.
   e. Individual name: as applied to names, a name that is applicable only to a single individual (in a given context)
   f. Universal name: a name applicable to a plurality of individuals individually
   g. Signifying: the relation of pointing to a being.
   h. Sign: a significant part of language existing in speech or writing (in Aristotelian studies it is a question whether there are also signs in the mind).
   i. Verb: a name that, in addition to its primary signification, secondarily signifies time, that is, past, present, and future.
   j. Inflection (case): a form of a noun or verb that has additional secondary significations. Inflections have an important role in syntax. (Aristotle did not use the term “syntax” in this sense.)
   k. Logos: A part of language that itself has multiple parts having independent significance.
   l. Proposition (Gk. apophansis, ἀποφάνσις, or protasis, προτάσις): a logos capable of being true or false.
   m. Sameness or identity: x is the same or not the same as y either numerically, specifically (in species), or generically (in genus)
   n. The “predicables” (probably a misnomer): definition, genus, property, and accident. These are forms of description in terms of which questions of identity can be asked. Anything that belongs to a subject is one of these in relation to that subject.
   o. Homonymy, synonymy, paronymy: ways that things are related by their (truly predicated) names. If they share the same name without the same definition for both names, they are homonyms; if they share
the same name with the same definition, they are synonyms; and if they share a name with a difference of inflection, they are paronyms.

p. Being said of a subject: this expression seems to be used inconsistently—in the *Categories* it means something definitory of the subject—a species, genus, or difference of the subject; while in *On Interpretation* and *Topics* it seems to include the relations just mentioned, as well as the relation in which a thing is attributed to something of another category; for example, color of a body.

q. Being (present) in a subject: the relation between an inessential attribute of a subject and that subject.

r. To predicate (κατηγορεῖν, κατηγορία): to say something of something. The exact significance of this word is important, yet obscure. In the *Categories* it seems to have two distinct applications—one to beings and one to things said. As applied to beings, it seems to mean being said of a subject, as we have just defined it as used in the same work. But names and definitions are also explicitly discussed as being predicated, and there it means something like putting a name or definition together with a verbal subject in the way that one does when composing a subject and predicate to make a proposition (a kind of sentence). What does such a juxtaposition signify? Seemingly either that the being named by the predicate is said of the subject or that it is in the subject.

s. Belonging to a thing: seemingly the most general term for a relation between two things that can be expressed in language. From the *Analytics* it seems clear that it encompasses both being said of a subject and being in a subject.

t. Category (categoria, κατηγορία, in Greek means “predicate”): an item in Aristotle’s overarching classification of being (the hierarchical list mentioned above). Seemingly can refer either to a word or to a thing.

u. Substance (ousia, οὐσία): the primary category. In the *Categories*, what is predicated only of itself—in the *Metaphysics*, what in itself or in its own right or according to its own nature exists, as opposed to what exists only because something else exists.

4. Although the “canonical” order of the works of Aristotle has *Categories*, *On Interpretation*, *Topics*, in my opinion, the development of thought makes more sense as *On Interpretation*, *Topics*, *Categories*. Also, Chapter 20 of *Poetics* provides essential context for *On Interpretation*.

5. A hierarchical series of theories

   a. Theory of the parts of speech (*Poetics*)

      i. The parts of speech (in the Aristotelian sense) are the stages in the composition of language

      ii. They are:

         1. Element or letter: the smallest units—roughly, phonemes
         2. Syllable: next larger units
         3. Article: (obscure and textually confused)
         4. Conjunction: (obscure and textually confused)
5. Name or noun: smallest unit independently significant
6. Verb: smallest unit independently significant and consignifying past, present, or future [and signifying what is said of something else]
7. Inflection or case: form of a noun or verb that has additional secondary significations
8. Logos (untranslatable): unit having multiple parts that independently signify

iii. Comments
1. The first four are called “non-significant, and the last four “significant.” “Non-significant” was “syncategorematic” in later medieval times. This is a distinction which is still used in analytic philosophy today, in the form of the distinction between descriptive and logical symbols (Carnap)
2. One could posit a theory that the inflections hold language together in a way that mirrors the way that the categories of being structure the universe. (There are hints in Aristotle that the list of categories is derived from the list of inflections.)
3. The most important kinds of logoi are definitions and propositions. But there are others, such as questions and prayers.

b. Theory of propositions (On Interpretation)
   i. Written language is (conventionally) symbolic of spoken, and spoken of “affections of the soul,” but affections of the soul resemble things, and are the same for all humans.
   ii. We shall skip the part that echoes, or nearly so, the Poetics. (Note: On Interpretation mentions only the last four of the parts of speech.)
   iii. Propositions are immediately divided into affirmations and negations. Affirmations affirm something of something, while negations negate something of something. (The Greek expressions here are hard to translate literally.)
   iv. Truth and falsity: a true affirmation affirms of a thing what actually belongs to that thing. A false affirmation affirms of a thing what does not actually belong to that thing. And correspondingly for negations.
   v. Aristotle’s basic definition of “contradiction.” A contradiction is a pair of sentences, affirmation and negation, such that the negation negates what the affirmation affirms.
   vi. A logical (as opposed to metaphysical) form of the principle of contradiction: of a contradiction, one member is true and the other false.
   vii. The fundamental principle of On Interpretation: there is a 1-1 correspondence between affirmations and negations
viii. The forms of propositions:
   1. Singular: affirmation and negation (Socrates is wise, Socrates is not wise)
   2. General: universal affirmation, universal negation, particular affirmation, particular negation. The pairs that form contradictions (in Aristotle’s sense) are: universal affirmation and particular negation, and particular affirmation and universal negation
   3. The diagram illustrating the logic relations among these four forms is called the “Square of Opposition.” There is a prevalent misconception, in my opinion, among modern textbook writers of logic, that the relations of the Square of Opposition do not work and must be supplemented. They work if one assumes, as Aristotle implies, that an affirmative proposition implies the existence of its subject and a negative does not.
   4. There is an elaboration of the Square of Opposition in On Interpretation Chapter 10, expanding the scheme to include negative subjects and negative predicate-nominatives. The total number of possibilities, then, would seem to be $2^2 = 16$. Chapter 10 also includes a scheme of existence propositions.
   5. There is another square of opposition in On Interpretation, the modal square. Here necessity takes the place of universality and possibility of particularity. The two squares have a 1-1 correspondence in their logical relations.

c. Theory of identity (at least rudiments) (Topics)
   i. In a way, just as in Frege and analytic philosophy, the relation of identity is fundamental to philosophy, and cannot be dispensed with, as Wittgenstein did in the Tractatus, assuming (apparently) that a thing has one and only one name.
   ii. None of what Aristotle does in logic makes sense without a clear sense of what things are the same and what things are distinct.
   iii. For example, it seems clear that substances are distinct from their attributes, even though in a sense the attributes are manifestations of the substances.
   iv. And it seems clear that we must posit a partial identity of some sort for individuals and their definitory elements (higher universals).
   v. Things that are the same are one, and things can be the same in number, in species, and in genus, so that in these ways things can be one. Things that are one in number are individuals. (It would seem to follow that things that one in species are
species, and one in genus are genera, and therefore that species and genera, which are universals, are things.

d. Theory of “predicables” (*Topics*)
   i. There is a 1-1 correspondence between problems and propositions. (Seemingly these must be yes-no questions.)
   ii. The “predicables” are descriptions in terms of which questions of identity can be stated. (Do all questions presuppose questions of identity?)
   iii. The list of predicables is complete, because each predicate must belong to its subject necessarily or contingently, and if necessarily, then either as its definition or not, and if not, then either as part of its definition or as a property, and if contingently, then as an accident.

e. Theory of predication (*Topics and Categories*)
   i. (*Categories 2*) Of things that are said, some are said without combination and some with combination (this seems to express the same distinction as that between nouns and verbs on the one hand and logoi on the other, but in slightly different language.
   ii. (*Categories 2*) Of beings, some are present in a subject, but not said of any subject, some are said of some subject, but not present in any subject, some are both present in some subject and said of some subject, and some are neither said of any subject nor present in any subject.
   iii. This passage is generally understood as positing a fourfold distinction of predicates into individual accidents, universal substances, universal accidents, and individual substances, respectively.
   iv. (*Categories 4*) Of things said without combination, some signify:
      1. Substance
      2. Quality
      3. Quantity
      4. Relative
      5. Place
      6. Time
      7. Action
      8. Passion
      9. Being-in-a-position
      10. Having
   v. *Topics* I, 9, lists these things as another way of dividing the “predicables,” and as ways of saying what things are that are set before you
   vi. These are the 10 categories—these passages of the *Categories* and *Topics* respectively are the only loci in Aristotle where the complete list occurs (?). Every significant part of language
signifies one of these (as I interpret Aristotle). The *Topics* says “what it is” instead of “substance.”

vii. (*Topics* I, 9) The categories can be predicated of themselves (genera of species, or either of individuals), or of “other” things. This seems to indicate the same distinction as that between being present in a subject and being said of a subject. It also seems to imply that individuals and their species and genera are identical specifically or generically respectively. We could call both of these kinds of identity “partial identity.”

viii. Aristotle sometimes talks of the “figures of predication,” which should mean something like “patterns of predication.” Forms of predicates that are predicated of themselves are, in general, distinct from the forms in which those predicates are predicated of other things.

ix. (*Categories* 5) Individual substances are substances primarily. The species and genera of substances are substances secondarily.

x. Substances are never present in a subject.

xi. All (pairs of) things having the names of substances are synonyms. (This is because substances, of all the categories, cannot be predicated of things other than themselves.)

xii. [Some (pairs of) things having the names of accidents are homonyms or paronyms. (Obliquely implied at 2a34.) This is because sometimes things having the names of accidents are of the same category, and sometimes of different categories.]

xiii. Seemingly, the patterns of predication are defined by the relations of homonymy, synonymy, and paronymy, which in turn are specified by patterns of inflection:

1. All things that are always predicated synonymously are substances.
2. All things that are sometimes predicated synonymously and sometimes homonymously or paronymously are accidents.
3. (Slightly speculative:) For each category of accident, the distinction between its self-predicative form and its other-predicative form is idiosyncratic.
4. There are four categories whose names in *Categories* 4 are infinitives of verbs. For these, the other-predicative form would be a finite form.
5. For some qualities, like colors, their self-predicative and other predicative forms overlap. In some cases, then, the things that share their names would be homonyms.

f. Theory of categories

i. The logical aspect of the theory of categories has been expounded to an extent in the preceding.
ii. Additionally to the points already made, Aristotle argues that “being” cannot be a genus, because if it were, it would be predicated of its own differentiae, resulting in infinite regresses of definition. Thus, being is a series (of categories), with substance its first member or a whole with substance its first part.

iii. The concept of the primacy of substance structures Aristotle’s “first philosophy,” or “theology.”

iv. The framework of the categories, next to the theory of the syllogism, is Aristotle’s fundamental analytic tool, being employed importantly in both the Physics and Ethics.

g. Universals in the Metaphysics
   i. In book Lambda Aristotle, in the course of one of his arguments against Plato’s forms, says at 1071a21 that there is no universal man.

h. The problem of universals in Aristotle: while in the logical works, several passages seem to indicate that universal names signify universal things (On Interpretation 1, Categories 2, Topics I, 9), Book Lambda of the Metaphysics seems to indicate otherwise. To avoid the existence of universal things, the mode in which universal names signify must differ from that in which individual names do so (my observation).