Meanings as Abstracta: How to Put Timeless Ideas into (Spatio-) Temporal Consciousness

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1. Categorical Ontology!

It is a privilege to write in the spirit of Ingvar Johansson, a philosopher unafraid of ontology while observant of phenomenology. I should like to join in that *Geist* here.

Many philosophers shy away from abstract or ideal entities, for fear these things will end up in Plato's heaven, removed from the world of real life and nature. Or perhaps: in Frege's third realm, wherein reside eternal thoughts or meanings — *Gedanken* or *Sinne*. Well, that's the wrong way to look at abstract entities. Abstracta are not in some other place outside spacetime. Abstracta are not *located* at all. It is a category mistake to say they are *outside* spacetime. And it is also a category mistake to say they are somehow *in* spacetime. Well, what can we say about abstract entities, or abstracta?

In contemporary metaphysics it is unusual to discuss ontological *categories* explicitly. Professor Johansson tackles categories head-on in his *Ontological Investigations* (2004, second edition). The title alludes, of course, to Edmund Husserl's *Logical Investigations* (1900–01/2001). As Johansson notes, many of the great philosophers can be seen as developing a theory of categories, but only a few present their schemes explicitly. Aristotle of course launched the very idea of categories, and gave us the word. Husserl is particularly interesting, Johansson finds, because Husserl developed an ontology of categories featuring ideal universals, universals *in re*, and also intentionality. Where Kant and Hegel proposed systems of categories, their metaphysical visions were idealist: “transcendental” idealism in Kant and “absolute” idealism in Hegel. But Johansson seeks a realist ontology that addresses intentionality without collapsing the world into intentional consciousness, whether individual consciousness (Husserl) or collective consciousness (Hegel). ... Agreed! (For the record, I myself don't read Husserl as collapsing the world into consciousness, not even after his “transcendental turn”, but that interpretive issue is beside present concerns.)

Accordingly, Johansson develops not merely a *table* of categories (think of Aristotle's initial list of ten), but a *theory* of categories: a theory *inter alia* of how different categories are related, of how entities under one category are related to entities under another — and this theme is a guiding motif for what follows here. For instance, to simplify, the category Universal and the category Particular are *related* insofar as a particular *instantiates* a universal — so that instantiation links entities in the two categories, forming a state of affairs, which Johansson takes to be a special type of unity, and so — interestingly — a special type of universal rather than (as I'd prefer) a further category State-of-Affairs. The details of Johansson's theory of categories unfold links among: universals, particulars, states of affairs, intentionality, subjects, and societies. To oversimplify, Johansson follows the early Husserl of *Logical Investigations* in extending Aristotelian structures so that all the world's a stage where universals and their instances enact the story. It's a rich story, because the story line leads into strong doctrines of social reality. Extremely interesting!

I too like to pursue the theory of categories (see Smith 2004, *Mind World*). And I too find Husserl's investigations of categories to be particularly insightful (see Smith 2007/2013, *Husserl*). However, in addition to Husserl's *Logical Investigations*, I look to Husserl's later *Ideas I* (1913/1983). In the *Investigations* Husserl's ontology is focused on universals, or "ideal species". Both mathematical entities and intentional contents seem to be treated there in terms of universals. Numbers and sets (or "manifolds") seem to be treated as properties of things, for instance, as the number 3 would be a property of threesomes (as Bertrand Russell also considered). And the idea or concept or sense "tree" would be a property of consciousness, viz., the type or species of acts of consciousness intentionally directed toward trees. Johansson is especially concerned with the theory of universals, arguing for a broadly Aristotelian theory of *in re* universals: whereas Platonic forms are outside time and space, in a Platonic heaven, Aristotelian universals are *in* things in time and space. *In-re* universals are often called particularized universals, or recently "tropes", or in Husserl "moments". For the Aristotelian: This particular whiteness in this particular slab of marble, for instance, is strictly *in* the marble, and there is no ideal whiteness located in a Platonic heaven. Well, Husserl himself combined the Platonic and

Aristotelian doctrines, so that the ideal White is realized in the particular moment of white in the particular slab of marble. Thus, Husserl posits all three types of entity: the white marble slab, its particular white (a “moment”, or dependent part, of the slab), and the ideal White, which is instanced in the particular white in the marble. Let us have our cake and eat it too! ... A refinement per gospel Husserl: the moment this-white is, strictly, a *dependent part* of the white slab, a part that could not exist apart from the slab, and that part of the slab is what instantiates the ideal White.

Now, in *Ideas I* Husserl brings more to the table: to his table of categories, and to his *theory* of what categories are and how they are inter-related. And so, Husserl opens that volume with a dense statement of his (updated) ontology of categories. First, Husserl assumes, there are two fundamentally different types of “essence”, or *eidos*, using the Platonic term for universals. There are *formal* and *material* essences, Husserl holds, perhaps counting mathematical entities (numbers, sets, etc.) as formal entities — though I myself would give them their own categorical niche. But, in any event, as I understand the ontology developed in *Ideas I*, Husserl also posits a *third type* of ideal entity: meanings, Sinn. That is to say, in this Husserlian ontology, there are three types of abstracta: essences (i.e., universals), including species, properties, and relations; mathematical entities, including numbers, sets, etc.; and meanings, or senses (*Sinne*), including concepts, propositions, etc. Meanings are expressed in language and, more basically, serve as contents of acts of consciousness. Husserl calls the ideal content of an act-of-consciousness its “noema”, adapting a term from Aristotle and the ancient Greeks. And Husserl characterizes the noema of an act as a type of sense (*Sinn*). (See Husserl, *Ideas I*, §88, and my full interpretation thereof in Smith 2007/2013.)

What I want to focus on here is the ontological status of *meanings*, taken as ideal intentional contents, so taken in the spirit of Husserl, Bolzano, and (perhaps less explicitly so) by Frege. I cannot here compare Johansson’s theory of categories with Husserl’s or with my own forays along kindred lines. What I hope to pursue is the theory that contents are ideal or abstract meaning entities that play a specific role in acts of consciousness. The acts themselves occur in time, and indeed in spacetime as embodied spatiotemporal activities of individuals such as

you and I. Ideal contents are drawn into, or entertained, in the acts. But contents themselves are not spatiotemporal entities: as such, by their essence, they simply do not have spatiotemporal properties.

To adapt some homely examples of category mistakes, or mistakes of essence: a conifer does not have leaves (it has needles, not leaves), such is its essence; a snake does not have legs (it moves by sidewise undulation, not leg action), such is its essence; a painting does not have pitch such as high C (it has qualities of color and shape, not qualities of sound), such is its essence; and so on. As in logic (a name is not predictive or propositional, rather its logical role is defined by the logical category of Subject, not Predicate, not Sentence), so in ontology. According to a categorial ontology, entities of a given type have properties or roles appropriate and relevant to their type, their essence, their category — that's how the world is structured. ... We'll come back to the categorial role of contents or meanings.

If in a comparative ontology we look at differences between Johansson's favored category theory and my own, one fascinating point is the status of states-of-affairs. Johansson treats a state of affairs as a type of *unity* and therefore a special type of *universal* (Johansson 2004:33). And he treats intentionality as defining a unique sub-category, where intentionality takes the form of a *complex universal* (Johansson 2004:207), where an intentional relation connects a subject and an object, with both subject and object treated as types of states of affairs (Johansson 2004:197). I would offer different structures for subject, object, and intentional relation. I would treat an intentional relationship between subject (and content) and object as itself a particular form of state of affairs, but I would not treat a subject or an act as itself a state of affairs. Nonetheless, we concur, intentionality deserves its own ontological category (or perhaps sub-category). As does a subject, and so does a stream of consciousness experienced by a subject, and so too does a community of subjects: these entities are each unique in type and deserving of a specific category.

An important type of *unity*, following Husserl, is what Husserl called a "manifold", a structured unity — modeled, following Tarski, by a mathematical model, i.e., a tuple including first a domain or set of objects and then a set of relations on objects in that domain. A full-throated ontology of manifolds would not reduce a manifold to a

complex type of *set*, but you get the idea. (See Smith 2002.) Each act of consciousness takes its place in a manifold, or “horizon”, of possible acts whose contents or meanings are semantically bound together. Well, all that to the side, the main point I should like to dwell on here is the ontological *status* of the ideal or abstract meaning entities that serve as contents of acts of consciousness. (The outlines of my preferred category theory are assayed in Smith (2004), and my reconstruction of Husserl’s mature category theory is detailed in Smith (2007/2013).)

2. Categories of Abstracta

There are at least three basic types, or *categories*, of *abstracta*:

- 1) universals, including kinds, properties, and relations;
- 2) mathematical entities, including numbers, sets, structures or models (if these are not defined in terms of sets), perhaps abstract spaces such as Euclidean space (mathematically defined), and so on;
- 3) meanings, or senses, including individual concepts, percepts (arguably), general or predicative concepts, simple propositions, and logically complex meanings of various types — again, taken as ideal contents of thought or experience.

Importantly, each of these three types of abstracta is characterized as *shareable* by concrete (non-abstract) entities that occur in spacetime.

The *kind* Horse is shared by all horses, as each individual horse exemplifies or instantiates the kind Horse. Similarly, the property Soft-Nosed is shared by all (or most?) horses, as each individual horse has a soft nose. The relation Faster-Than is shared by many horses standing in that relation to others, as for example Secretariat was faster than Sham, and Sham was faster than Our Native. (Secretariat, Sham, and Our Native placed first, second, and third in the 1973 Kentucky Derby.)

The *number* 2 is shared by all pairs, for example by your parents, by my parents, by my pair of shoes, and by your pair of shoes. (There are many models of how numbers, sets, and other mathematica are “shared”. Let’s stay with a simple example here, as my focus will be elsewhere.)

The *thought* that Ingvar is a Swedish ontologist — if you will, the *thought* or *proposition* <Ingvar is a Swedish ontologist> — is shared by my thinking-that-thought and your thinking-that-thought. Again, the *concept* <Swedish> is shared by my thinking and by your thinking about

Ingvar. In this way a certain meaning content is shared by concrete mental acts or events.

But what exactly do we mean when we say concrete entities “share” a universal, or share a number, or share a meaning? Each type of sharing is a form of *connection* between an abstract entity and appropriate concrete entities. Well, then, there are three very different types of “sharing” connection that serve to define the essence of the *categories*: Universal, Number, and Meaning. For part of what defines these three types of abstracta — universals, numbers (etc.), and meanings — is precisely the *type of connection* each holds to concrete entities that “share” that abstract entity.

Notice how we speak about these “sharing” relations — in philosophical prose as it were:

- The horse Secretariat *instantiates* the natural kind Horse (*Equus ferus caballus*).
- My shoes are *enumerated* by the number 2.
- I *entertain* the proposition <Ingvar is a Swedish ontologist>.

Accordingly, within a proper category theory, each type of abstract entity is defined (in part) by the type of relation that type of abstract entity bears to the appropriate type of concrete entities. Thus, our philosophers’ prose coins terms like “instantiate”, “enumerate”, and “entertain”. In everyday language we simply say:

- “Secretariat *is* a horse”,
- “My shoes *are* two”,
- “I *think* [the thought] that Ingvar is a Swedish ontologist”,

or

- “I *have* the thought that Ingvar is a Swedish ontologist”,

or perhaps,

- “My thinking *is* that Ingvar is a Swedish ontologist”.

The category theory we philosophers bring to the table seeks then to distinguish these three types of relation of concrete entities to abstracta.

Two problems quickly emerge as we move into ontological category theory. We say there are three *types* (categories!) of abstracta: are these types then *kinds* — thus falling under the category Universal? And we say there are three types of *connection* of abstracta to concrete entities:

are these connections then bona fide *relations* — falling under the category Universal?

When logicians move into logical type theory, they face the symbolic counterpart of these issues of ontological categories. *Logical* categories of expression may correlate, in a full logical semantics, with *ontological* categories of entities, that is, entities designated by the relevant forms of expression. Type theory has been a thorny issue for logicians, and we are facing a comparably thorny issue for ontologists. ... Husserl explicitly correlated categories of linguistic expressions, categories of meanings, and categories of objects in the wide sense. These correlations Husserl cited in the Prolegomena of his *Logical Investigations*. (Smith 2007/2013 studies the implications of Husserl's conception of logic for his conception of formal ontology and of phenomenology.)

Johansson (2004) is largely focused on category theories that address aspects of universals. And perhaps aspects of mathematica (numbers, sets, etc.) are around the corner. However, my concern here is the third type of abstract entities: *meanings*. The ontological issues of meanings are less familiar than issues of universals and numbers, which arise sharply in Plato and are debated from Aristotle onward til we reach, in recent years, David Armstrong's work. Yet issues of meanings also went their way through history, from the Stoic logicians' "dicta" to Bolzano's "*Vorstellungen an sich*" to Frege's "*Sinne*" and Husserl's "noemata".

3. Categories in Formal Ontology

Let us return to the point that a categorial ontology posits not only a variety (a set?) of categories (*über* forms or essences), but also a variety of relations among entities in those categories. The links between such entities — notably, instantiation, enumeration, and entertainment — are typically *formal relations*. ... I should prefer to reserve the name "relation" for a type of universal, e.g. Taller-Than, but the familiar use of the term "relation" is unavoidable, so I'll stay with "formal relation" even though formal relations play a different role than "material" relations such as Taller-Than.

Now, to explain the notion of a formal relation, we need to consider the notion of *formal ontology*, as opposed to substantive or material ontology. We are traditionally immersed in formal ontology, but it seems to have been Husserl who most explicitly (and first?) propounded the distinction between formal and material ontology. (See the opening

chapter of Husserl's *Ideas I* (1913), which explicitly characterizes formal categories and amplifies the vision of the formal that unfolded in Husserl's prior *Logical Investigations* (1900–01, revised 1913/1920.)

Briefly consider, as a case study, Husserl's model of a formal ontology (following *Ideas I* as reconstructed in Smith (2007/2013)). Husserl posits three material "regions": Nature, Consciousness, and Culture or "Spirit" (*Geist*, embracing historical cultural formations). Falling under Nature are objects and events in spacetime; under Consciousness are events or acts of conscious perception, thought, etc.; under Culture or *Geist* are communities of persons and their interactions. Then, governing entities in each of these three regions are formal "categories": Individual, Property/Relation, State of Affairs; Number, Set, Manifold, ...; Part/Whole; Dependence; Possibility, Necessity; and so on. (See Smith 2007/2013:157, for a schematic reconstruction of the categorial theory Husserl builds but does not explicitly gather together.) The simplest example to get the gist of formal ontology is the role of number: whether the *individuals* at stake are spatiotemporal *stones* on the beach, or *experiences* in my stream of consciousness, or Presidential *elections* in the United States — the formal category Number applies to these entities in their different "regions" and also across regions. There are 5 stones on this patch of beach, there are 3 auditory perceptions in this stretch of my conscious experience; there are 2 Presidential elections between 2001 and 2011; and so on. Again, the formal category State of Affairs applies to entities in those three regions: there are natural states of affairs (the Empire State Building is taller than the Chrysler Building in New York City), there are experiential states of affairs (my seeing the lightning precedes my hearing the thunder), there are cultural states of affairs (the first 2012 World Series baseball game precedes the 2012 U.S. Presidential election), and so on.

Roughly, *formal* categories govern or structure entities in *material* regions. Again, this formal structuring of substantive entities parallels the way logical categories for expressions structure sentences in a given language. Thus, the logical or grammatical categories Name and Sentence constrain or structure concrete expressions in sentences such as "Husserl admired Aristotle". Here the logical form of the sentence is symbolized as "a R b", where "a" and "b" are (formal positions) to be filled by names and "R" is (a formal position) to be filled by a predicate

in the full sentence whose form is “a R b”. What could be more familiar? Ah, but the point of the categorial ontology is that we are considering not linguistic expressions, but entities in the world. The state of affairs [Husserl admired Aristotle] is a formal ontological structure, within which Husserl and Aristotle play the formal roles of Individual, admiring plays the formal role of Relation, and Husserl’s admiring Aristotle plays the formal role of State of Affairs: all this, within the structure of the world, where formal categories rule over material regions, all this structuring here the situation or state of affairs that Husserl admires Aristotle.

At stake in the above example, notice, is the *formal relation* of instantiation. The individual Aristotle *instantiates* the material essence Human, we assume, as does the individual Husserl. Also, we assume, admiring *instantiates* the material essence Human Attitude. But there is more. The entity Aristotle *is structured by* the formal category Individual, as is Husserl. And, we assume here, the entity Husserl’s-admiring-Aristotle *is structured by* the formal category State of Affairs. We might again use the term “instantiate”, rather than “is structured by”, but in the spirit of formal ontology we ought to use a different term for the formal relation between an entity and its *ontological form* (compare logical form). If a material essence qualifies an entity, as Human qualifies Aristotle, defining what material essence it/he falls under, a formal category *structures* or *forms* an entity, defining what formal category it belongs to even as it falls under a given material essence. Again, the analogy with logic instructs us: the expression “Aristotle” is formally a *name*, and substantively an expression that was given as name to a concrete human born in ancient Greece.

In the considerations above we have limited our focus to universals and particulars, what Husserl called “essences” and “individuals”, which instantiation binds into states of affairs. Where are *meanings* in the structure of the world? Well, we have not seen them yet, in the lay of the land mapped out so far. Where do meanings play in the structure of the world, if we assume the outlines of a *categorial* ontology? Where do meanings figure in a *formal* ontology?

4. The Formal Structure of Intentionality

For purposes of argument here, I should like to assume the basic outlines of the Husserlian theory of intentionality, in the interpretation I’ve

studied elsewhere. (See Smith (2007/2013) for a full exposition in relation to Husserl's formal ontology. The basic structure of intentionality on that interpretation was initially articulated, sharply and succinctly, in Føllesdal (1969/1982). A detailed account was elaborated in Smith and McIntyre (1982).)

Intentionality is the relation between consciousness and its objects: as Husserl glossed the phenomenon, each act of consciousness is a consciousness *of* something. What is the *form*, the formal structure, of that relation: consciousness-of-something? On the going analysis, intentionality consists in a complex *intentional relation* among subject, act, content, and object — if the appropriate object exists. That is: An act of consciousness, an intentional experience, is *performed* (or *experienced*) by a subject “I”, the act *entertains* a content, i.e., a meaning or noema; the meaning, where entertained in the act, *intends* an appropriate object if such object exists. It is natural to say the meaning in an experience *presents* or *represents* the object, that is, if and only if such object exists. In a contemporary idiom, the meaning in an experience is *satisfied* by the object: that is, if and only if appropriate conditions obtain. So an intentional content, a noematic meaning, is essentially characterized by appropriate *conditions of satisfaction*. If the meaning entertained is a proposition, a propositional meaning, well, the proposition is *true*, or *veridical*, if and only if said conditions obtain; whence a propositional meaning is essentially characterized by appropriate *truth conditions*. (Smith 1989 details conditions of satisfaction for context-sensitive “indexical” senses in “acquainting” experiences. These forms of consciousness, in “indexical” awareness, or acquaintance, are especially interesting because the intentional relation is context-dependent yet mediated by ideal meaning.)

A simple example reminds us how the structure of intentionality works. When I see that tree across the street, a complex *intentional relation* connects me, my visual act or experience, the act's meaning <that tree>, and the actual tree itself. The *structure* of that intentional relationship is analyzed in this form:

I —P— this visual act —E— the meaning <that tree> —INT—> that tree .

And this structure involves three special types of relation:

P, i.e. perform; E, i.e. entertain; INT, i.e. intend or mean or present.

Again, when I think that that tree is a Eucalyptus, an intentional relation connects my thought to the state of affairs that the tree is of said species. The structure of the intentional relation in this case is such that:

I —P— this thinking act —E— the proposition <that tree is a Eucalyptus> — INT —> [that tree is a Eucalyptus].

So, in each case, I *perform* the act that *entertains* the meaning-content that *intends* the appropriate object or state of affairs. That is: in accord with the conditions of satisfaction for that meaning in that experience on that occasion or in that context.

We display the structure of the intentional relation in this style so as to bring out these ties *within* the structure of intentionality. The special relations of performing, entertaining, and intending tie together the intentional relationship. Where do these special relations appear in a *categorical* ontology?

I submit that these three relations are *formal relations*: they have their own *formal* — “logical” — character, as does the *instantiation* of a universal in a particular. And the composition of those three formal relations — performing + entertaining + intending — forms the *intentional relation* that ties act to object, or subject to act to object via noematic meaning. Accordingly, the *form* of the intentional relation of act to object presents a unique type of (composite) *formal relation* in a categorical ontology. And for this reason, I think, intentionality should be posited as a unique formal category: Intentionality.

As long since observed, intentionality is formally different from ordinary relations such as Taller-Than, since the object of an intentional relation may in some cases not exist (say, if I am hallucinating that tree, or if my thought about the tree is false). Moreover, I’m now proposing, the complex of relations tying together the intentional relationship — performing, entertaining, and intending — forms a formally distinctive structure: intentionality! Accordingly, within the categorical ontology unfolding, we should recognize intentionality itself as a unique *formal* structure, even as we recognize instantiation as a unique formal relation. ... Thus, we note: Where the object exists and satisfies the meaning, the intentional relationship forms a state of affairs. But where the object does not exist, the “relationship” is unfulfilled, the meaning unsatisfied.

Still, the relationship is a form of intentionality. By virtue of this unique formal structure, we should see, Intentionality is its own formal category.

It is difficult to define what is *formal*, beyond what we say of basic and simple examples. Number rules over many domains; Instantiation rules over universals, but is not itself a universal, on pain of Plato's Third Man trouble; logical form rules over sentences, for example, starting with sentences formed from proper names and predicates. So number, instantiation, and logical form are "formal" things. I did not say "formal notions" or "formal expressions", for we are seeking formal-ontological types of things in the world, not conceptual or linguistic types. Well, then, without a fully explicated theory of *formal structure in the world*, I want to press the axiom that intentionality itself is a formal-ontological structure, defining a specific formal-ontological category.

In the background is the analogy with the formal logic of intentional attributions like "Smith sees the tree", "Smith thinks that Obama prefers diplomacy", etc. Epistemic or intentional logic, the logic of attributions of intentionality, requires a different logical-semantical framework. Thus, Jaakko Hintikka's work treats intentional logic as a form of modal logic with a distinctive possible-worlds semantics. Anyway, suffice it to say here that the ontological structure of intentionality is unique and defines, in that way, a formal-ontological category. (See Hintikka 1969 and 1975, and Smith and McIntyre (1982) on relations between meanings or noemata and possible-worlds structures.)

Now, the point I am heading for, in the present study, concerns the ontological status of the *meaning* entertained in an intentional experience.

4. The Formal Role of Meanings in Intentionality

Where do meanings figure in the structure of the world? According to the above model, meanings serve as contents of acts of consciousness. That is to say, meanings play the *role* schematized above in the *formal structure* of the intentional relation — the type of relation that connects subject, act, content (viz., meaning), and object (if such object exists). Accordingly, *meanings* are the relevant type of *entities* that can play the *role* of content in intentional relations.

So on the ontology I'm envisioning: Meanings are abstract entities of a certain kind. The role of content is a position in the formal structure of

an intentional relation. And meanings are the type of entities that can play that role in an intentional relationship. ... Think about it. That Eucalyptus tree, all full of “gum” sap, cannot play the role of content in my visual experience of seeing that Eucalyptus tree. The tree itself will shatter into shards of wood if it crashes onto the street. But the meaning <that Eucalyptus tree> is not the sort of entity that can crash onto the pavement and shatter. No, the concrete tree itself is the object of my consciousness, and the ideal meaning is the content of my consciousness. (The reader of Husserl will recognize a similar point in *Ideas* I, §89, where Husserl says “the tree simpliciter [*schlechthin*]” can burn up but the “perceptual *Sinn*” in the visual experience cannot, as that meaning is not composed of chemicals, etc.)

My point here is that “content” is the name of the *role* to be played by meanings in intentional relations. And that role is a formal niche in reality, a niche in the formal structure of intentionality. Meanings are not roles; they are the type of entities that can play the appointed role, given the nature of that role, that niche in reality. ... Similarly, properties are not roles in states of affairs; they are the type, or one type, of entities that can play the role of “predicate” in a state of affairs. (Or consider a more dramatic analogy: humans are not theatrical roles; humans are the type of entities that can play the role of actor in a play.)

Since the same meaning can serve as the content of many concrete acts of consciousness, the same meaning is shared — entertained — in many acts of consciousness, acts occurring at different times, in different subjects’ streams of consciousness, acts embodied in different neurobiological individuals. Thus meanings are *ideal* or *abstract* entities: meanings are entertained in concrete acts of consciousness, but meanings are not themselves temporal or spatiotemporal entities, entities located in time or in spacetime. As noted, it is simply a category mistake to think of meanings as outside time or outside spacetime: there is no such “outside”. And it is also a category mistake to think of meanings as “inside” time or spacetime. The ontological role of meanings is not to reside in time or spacetime — or in the “causal order”, which is the structure of things in spacetime in causal connections to one another. Instead, the ontological role of meanings is to reside in the formal structure of *intentional relations*, that is: to be *entertained* in acts of consciousness, *performed* by a particular subject, and therein to *intend* a

certain object. ... The structure of intentionality is revealingly characterized in the modern “semantic” model of intentionality: the meaning entertained in an act intends a certain object if and only if that object exists and satisfies the veridicality conditions, or conditions of satisfaction, for that meaning in that act on the occasion. (This semantic model of intentionality is detailed in Smith and McIntyre (1982) and further in Smith (2007/2013), developing the basic idea laid out in Føllesdal (1969/1982), sometimes called the “Fregean” approach to Husserl’s conception of intentionality, though Husserl’s theory far out-runs anything Frege said about mind.)

It is almost customary for philosophers to think of a meaning dropping down from a Platonic heaven of “*eidos*” or a Fregean third realm of “*Sinne*”. The image I’m urging is quite different. The role of meanings in the structure of the world is the formal role in the structure of an intentional relation, the role specified above, the role of being entertained in or by an act of consciousness (etc.). Meanings do not drop into consciousness from somewhere else, any more than you drop into a friendship from somewhere else. Meanings drop into consciousness only in the way that an entity drops into a formal structure. The number 17 drops into the set of prime numbers only in that it takes its place in the order of whole numbers among those divisible only by 1 or themselves. The talk of “place” is a way of talking about a formally defined role in a formally defined structure. Thus, a meaning takes its place in an intentional relation, insofar as an act *entertains* a meaning within an intentional relation. And the same meaning can be entertained by numerically different acts in numerically different intentional relations.

That said: Why give Meaning pride of place as a distinct formal category, coordinate with the category Intentionality? Why not let meanings be subsumed under the category Universal? As noted above, the early Husserl assumed that the content or sense of an act of consciousness is (part of) the ideal species of the act, whereas the later Husserl distinguished meanings from species. Why join with this second categorial ontology of meanings? (As noted, Johansson (2004) stays with intentional contents as a kind of universals, so the content of an intentional state just is the *type* of that state.)

The most compelling reason, I find, is simply that meanings play a role in intentionality that species do not. In brief: meanings *mean*,

whereas types *type*. That is, the meaning in an act means, or *intends*, the object of the act, while the act's species types, or *speciates*, the act. In formal-ontological terms: meanings play the role of contents entertained in acts of consciousness, and in that role meanings intend appropriate objects; whereas types play the role of universals instantiated in particulars, and in that role types typify or gather entities of that type.

Let's work, as above, with a simple example.

I see that Eucalyptus tree across the street. The tree is one thing, its type or species is another thing, and the meaning residing in my consciousness is a third thing. The *tree* is composed of cells organized in great complexity, an organic system wherein moisture is drawn from the ground into the leaves by a complex biological process. The *species* Eucalyptus globulus is a variety adapted from Australia to California and elsewhere. And that tree before me is a member of that species. The species itself is a universal (well, not residing in Plato's heaven, but evolving here on planet Earth); the tree itself is a concrete individual. Now, the *meaning* <that Eucalyptus tree> is not a concrete individual bearing a sweet-smelling sap, nor is that meaning a biological species adapting to California's habitus. The species *groups* individual trees; alternatively, individual trees *belong to* the species, as *members of* the tribe of such trees. The meaning <that tree> plays a completely different role in the ontological ecosphere. The meaning, entertained in my visual experience on that occasion, *means* or *intends* that individual tree across the street from me as I live through my visual experience. In an alternative idiom, the meaning, in my concrete experience, *presents* or *represents* that individual tree. In an Husserlian model: there is an *intentional relation* between my experience, that meaning <that tree>, and yonder Eucalyptus tree. A species does not *mean*, or semantically *represent*, trees that belong to that species. *Intentional representation* is its own thing, quite beyond instantiation of universals.

In this semantic relation of intentional representation — “intention” — we encounter something that merits its own place, along with meanings, in categorial ontology.

If Meaning is a category unto itself, not subsumed under the category Universal, is Meaning a formal or a material category? Is an intentional relation, wherein a meaning is entertained, a formal relation (as proposed) — hence Intentionality a formal category?

5. The Formal-Ontological Status of Meanings

In the original sense of “abstract”, an *abstract* entity is an entity that is *abstracted* from a concrete entity. In Aristotle’s category scheme, this-white-in-this-marble (a quality) cannot exist apart from the marble slab (a primary substance). And in that sense, later philosophers said, this-white is abstractable from the marble, that is, it can be abstracted from the marble in thought but not in reality. Husserl follows that tradition, calling the concrete whiteness a *moment* of the marble, where a moment is defined as an *abstract* or *dependent* part of the marble — as today many philosophers call the concrete whiteness a *trope*. In the Aristotelian model, updated in Husserl’s formal ontology, a moment is ontologically dependent on a concrete individual, in that the moment cannot exist except as a part, a dependent part, of the individual. (See Husserl (1900/2991), *Logical Investigations*, III.)

Now, if meanings are abstract entities, a similar plight awaits meanings.

If a meaning is an abstract entity, then — adapting Husserl adapting Aristotle — we may say that a meaning has existence only in a state of ontological dependence. That is, in a case considered above: the ideal or abstract meaning (the proposition) <that tree is a Eucalyptus> exists only when entertained in a concrete act of thinking. In that way: the meaning is *ontologically dependent* on the intentional relationship wherein it is so entertained. Accordingly, the meaning in an act of consciousness is *abstractable* from the act, and from the act within the intentional relationship. That is, it is abstractable in thought, but not in reality. More specifically, in Husserl’s approach to phenomenology, the meaning in an experience is abstractable only in phenomenological reflection — thus the long methodological discursion over the course of *Ideas* I, introducing the “new science” of phenomenology.

We are then left with a familiar Aristotelian problem transferred to meanings. What about the universals that are never instantiated? The kind Golden Mountain has never been instantiated, and we may assume it never will be. Then that universal does not exist, saith the Aristotelian (contrary to the Platonist). But there is an alternative. We might better say the kind Golden Mountain is not instantiated, and thereby realized, but it *could* be (if only ...). Then the ontological status of uninstantiated universals is that of *potential* existence, viz., potential dependent exist-

ence. The universal Golden Mountain cannot exist in actuality unless instantiated in some existing concrete mountain. But we can just as well say *there is* such a kind, and its *ontological status* is one of *potential* realization through instantiation, so the kind Golden Mountain has potential dependent being.

Similarly, when we turn to ideal meanings, we may say: An ideal meaning cannot exist unless entertained in a concrete act of consciousness. It is *abstract* in that it is abstractable from an act within an intentional relation — abstractable in reflection. Yet a meaning *in abstracto* has the *potential* to be realized, brought into actual existence where entertained in a concrete act of consciousness. That is: within the *formal structure* of a concrete intentional relationship, a relationship among a subject, an act, and an intended object (if such there be), a relationship mediated by that ideal meaning. Then the being of meanings consists in their potential dependent being in actual concrete acts of consciousness.

And what kind of potentiality are we here talking about? Not physical or natural potential, where it is physically or naturally possible that some experience entertain a given meaning — possible given the laws of nature. Rather: *formal-ontological* potential, where it is formally possible that some experience entertain a given meaning — possible given the formal structure of the world, according to the laws of formal ontology. Husserl's idiom would allow us to say “logically possible” here, so long as we can specify that the “logic” involved governs formal structures of the world. (See Smith (2007/2013) on the semantic correlation among forms of expression, forms of meaning, and forms of objects or structures in the world. Compare Smith (2002) on formal structures realized in the world.)

5. Ramifications?

In a categorial ontology we must deal with formal ties among material or substantive entities. A state of affairs is structured by the formal relation of instantiation that links entities of different substantive types. For example, the state of affairs [that tree is a Eucalyptus] is formed by the *instantiation* of the biological *species* Eucalyptus in that particular biological *organism*. In Aristotelian terms, the species is predicable of — can be instantiated in — the individual organism, but the organism is not predicable of anything: such are the constraints of the categories of Species and (Primary) Substance.

Life is complicated, formally as well as biologically.

In a categorial ontology of intentionality, on the unfolding model, an intentional relationship is structured by the formal relations of performing, entertaining, and intending. For example, the intentional structure of my thought about yonder tree is the intentional relationship structured by *me* performing that cognitive *act* entertaining the *proposition* <that tree is a Eucalyptus> intending the *state of affairs* [that tree is a Eucalyptus]. The proposition, a form of ideal meaning, is the type of thing that can play the formal role of content in that intentional relationship. Only an ideal *meaning* can fill that role: such are the constraints of the categorial scheme we are drawing (in Husserl's wake).

Life is remarkably complicated for the categorial ontologist. Enjoy!

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