1. ONTOLOGY

Summary and general remarks. Taking for granted that much of the content of Frege’s works is ontology (1.1), our problem is not whether or not in Frege there is ontology, but rather to pursue further the analysis of those aspects of Frege’s thought which call for a comparison with traditional ontology.

One such aspect is the relation of predication or, in other words, the relation between an object and a property. Modern logic and modern Grundlagenforschung (and Frege in particular) in systematically dealing with such a relation have been doing something quite familiar to philosophers since Plato. In this respect, Logik, Metaphysik and Grammatik (to use H. Scholz’s terms) fully coincide.

The demand for a deeper analysis of such a well-established coincidence necessitates emphasizing a fact whose significance seems to have been ignored. Traditional ontology has two dimensions (to use an algebraic metaphor): (1) substance–accident, (2) singular–universal. This is briefly described as the ontological square (1.2).

An important consequence of the existence of these two dimensions is that the term “property” becomes ambiguous, as does the expression “relation between individual and property”. A property of a thing may be an accident; then the property is not at all a universal but an individual. On the other hand, a property of a thing may be a universal (“property” in the sense usual today). The same applies to other terms like “attribute”, “predicate”, etc.

As a result, the initial enthusiastic association à la Scholz of ontology and modern foundational research must be re-examined.

In the present work a first step towards this re-examination is accomplished. This consists in a general presentation of the ontological square and its history (1.2-1.4.6).

Unfortunately this history seems to be one of ambiguities rather than

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of clear doctrines. Aristotle appears to be responsible for the ontological square (1.2), as well as for having introduced ambiguities, with regard to it (1.3). The philosophical tradition, in its turn, seems to have inherited both the Aristotelian distinction as well as the Aristotelian ambiguity (1.4). Although as centuries went on the ambiguity seems to have imposed itself upon the distinction (in such a way that the ontological square is actually deformed, 1.44), there are exceptions, and the misunderstanding of Russell-Leibniz (1.43) is a striking example of this, not to mention some curious irregularities in Frege’s technical terminology or in that of other contemporary authors (1.45 and 1.46). In a final section (1.46), some applications of the ontological square in the present work are mentioned.

From such a first critical approach a general conclusion can already be drawn, which is actually the main conclusion of the present chapter on ontology. It may be summarized in the following way.

It is true to say that classical ontology has explicitly considered two dimensions whereas this distinction is not “officially” introduced in contemporary philosophy. But it is equally true to affirm that the distinction of the two dimensions is far from having been well preserved in the past, whereas it is still discernable (though not acknowledged) in Frege and other recent authors (belonging, in particular, to foundational philosophy).

The reasons for considering this point at length are the following: (1) the necessity mentioned above of qualifying hasty identifications between Fregean and classical ontology, (2) the fact that the knowledge of the distinction between the two ontological dimensions in classical ontology is a necessary prerequisite for any successful understanding of the connections between Frege (or Fregean philosophy) and the philosophical past in matters of ontology, (3) the fact that throughout the present work the ontological square is referred to, (4) last but not least, the circumstance that, independently of its applications, the ontological square is in itself a remarkable lieu de rencontre of old metaphysics and new logic, which has been rather neglected by students of old metaphysics and to which new logic makes one sensitive.

1.1 Contemporary logic and ontology

Without engaging in the old dispute about the two senses of “metaphys-
one may at least assume that "first philosophy" contains, as a significant part, the program of a science investigating entities in general. It is this aspect of the Aristotelian doctrine which (a) in modern philosophy received the name "ontology", (b) in contemporary philosophy has been again adopted, and (c) more recently has suggested comparisons with the new philosophical movements originating in foundational research.

Comparisons of the ontology of modern philosophy with Frege's work (or in general with philosophy arising from foundational research) are only natural. Individuals, properties, membership-relation, identity, etc., are a common subject-matter; even semantics is included in the ontological program of modern philosophy.

The same applies to a comparison of Frege's work with ontology in contemporary philosophy. The significance of Pichler [1] has already been pointed out for the development of "new ontology", and we need only to compare Frege's conception of functions as concerning Gegenstände überhaupt with the title of the first chapter of Pichler [1]: "Die Ontologie als Wissenschaft von den Gegenständen überhaupt".

The impression that there exists a wonderful harmony (even in spite of mutual misunderstandings) may be confirmed by comparing statements of such authors as H. Scholz and M. Heidegger: if on the one hand Heidegger says that however we look at it the structure of things is a subject-property structure, on the other hand Scholz affirms that logical laws (predicate calculus) concern nothing else than subjects and properties.

It is a conclusion of the present work that Frege's new approach to predication theory enables one to see why in the philosophical tradition logic and ontology have been so drastically separated one from the other. Such a Fregean contribution is of course a new fact confirming even more the close relationship between modern logic and old ontology. The rest of the present chapter is devoted to qualifying that relationship in the particular respect of the two dimensions of ancient ontology.

1.2 The ontological square ("Categoriae", 1a, 20–1b, 10)

I shall first quote the text to be analysed in the present section:

\[ Τὸν ὄντον τὰ μὲν ἅπα ὑποκειμένου τινὸς λέγεται, ἐν ὑποκειμένῳ δὲ ὁδεῖν ἔστιν, οἳ ἄθροισθε ἡ λέγηται \]

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The following scheme is intended to reproduce the content of the quoted text: *Categoriae* 14 la, 20–1b, 10. (Elements taken from other passages are either supplemented with quotation-references in the figure itself or are justified in the course of the present section.)

This passage of *Categoriae* is traditionally understood as making a distinction between universal substances, particular substances, universal accidents and particular accidents. The history of commentaries on the Organon provides an extensive number of paraphrases and presentations of this text. 15 Boethius’ text and other ancient commentators 16 illustrate our quoted passage by means of a diagram similar to ours above: a
square in each of whose vertices one of the four classes of entities is located. The Aristotelian text explicitly states that this is a classification of entities, but it is of course contrary to traditional Aristotelianism to call universals entities simpliciter. In fact, Ioannes a Sancto Thoma elegantly modifies the formulation.¹⁷ Still, universals do enjoy an objective being, and ens rationis falls under ens communissime sumptum.¹⁸

The classification of entities into four classes is achieved by means of two relations: to be in a subject¹⁹ and to be said of a subject.²⁰ Let us abbreviate their names by EU(x, y) and KU(x, y) respectively.

D1 KU(x, y) =ₜ (the name of x is said of y) and (the logos of x is said of y).²¹

Remarks. The logos of x is said of y for we say that y is x (but the sense of the latter “is” is not further explained; cf. also 3a, 28). That the name of x is said of y means simply that y is called x (cf. 2a, 32). The text does not provide any rule which would enable us to decide to what extent the name of x may be modified in its function of being applied to y (I mean grammatical changes of number, gender, etc.). Another designation for KU (although appearing in a context where only substances are meant) is perhaps “συνωνόμους λέγεσθαι”.²²

D2 EU(x, y) =ₜ (x ὀνάρχει τὸ y) and (x is not a part of y) and (it is impossible for x to be χωρικός of y) and (the name of x is sometimes said of y) and (the logos of x is never said of y).²⁶

By means of these two relations, the four classes of entities are described in the following way:

D3 α₁ =ₜ (x ∼ ε D’KU) & (x ε Q’KU) & (x ∼ ε D’EU) & (x ε Q’EU).

D4 α₂ =ₜ (x ε D’KU) & (x ε Q’KU) & (x ∼ ε D’EU) & (x ε Q’EU).

D5 α₃ =ₜ (x ∼ ε D’KU) & (x Q’KU) & (x ε D’EU) & (x Q’EU).

D6 α₄ =ₜ (x ε D’KU) & (x ε Q’KU) & (x ε D’EU) & (x Q’EU).

(The symbolism employed here is that of Principia Mathematica or that current in modern logic.)

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The following fact should be considered, implied by D1 and D2:

\[(x, y). \, EU(x, y) \supset \sim KU(x, y),\]

i.e., if something inheres (EU) in something else, then it will not be said (KU) of the latter. It is clear that the term "subject" is ambiguous\(^{27}\): to be a relatum in KU is not equivalent to being a relatum in EU.

Members of \(z_4\) are said de subiecto (with respect to accidents) but are in subiecto (with respect to substances).

Class \(z_1\) includes all substantiae primae and only these. (This is often stated in Chapter 5 of Categoriae.\(^{28}\)) This man and this horse are the examples Aristotle prefers (cf. our diagram). It should be noted that no element of \(z_1\) is a referent in any of the two relations.

For class \(z_2\) the text gives the designations of substantiae secundae and differentiae.\(^{29}\) It seems that traditional paraphrases do not make clear enough that class \(z_2\) is not composed of entities which are only referents in KU.\(^{30}\) The distinction \(x_1\)-\(\sim x_2\) does not correspond to the distinction \(D'KU-D'\).\(^{31}\) This is related to the fact that in traditional logic animal is predicated not only of the subject Socrates but also of the subject man. In my diagram I have expressed this fact by a special KU-arrow within the fragment \(z_2\) of the ontological square.

In classes \(z_3\) and \(z_4\) the relation of inference (EU) appears. Referents in such a relation are traditionally called accidents\(^ {32}\) (\(z_3\) = singular, \(z_4\) = universal accidents). The relation of inference may originate in \(z_3\) as well as in \(z_4\). This is clear in the basic text itself. It should be stressed that subjects of inference are not only members of \(z_1\), i.e., individuals "proper" as one would think today, but also members of \(z_2\).\(^{33}\) This is a most important fact, which has a parallel in predication theory.

In classes \(z_3\) and \(z_4\) some difficulties appear. In the definitions above three question marks have been inserted where the situation is doubtful. The first one, in D5, is due to the fact that we do not know whether a particular accident (class \(z_3\)) is supposed to belong to the converse domain of KU. This doubt is justified, for simple reasons of symmetry would require particular accidents as relata of KU as well. If a member of \(z_4\) – say the universal accident grammar – is said to be a relatum (in KU) of another universal accident – say science – it would be most natural to have grammar being said (KU) of this grammar, as man is said of this man. But this is already to touch a critical point in Aristotelian
and Western ontology. To indicate this fact a dotted line has been inserted in the diagram (instead of an arrow).

The two other question marks (in D5 and D6) are due rather to our requirements of symmetry, but still they are meaningful questions within the system of *Categoricae*. I do not know whether there are answers in the Aristotelian *corpus*.

Again, traditional accounts do not seem adequate in that they do not make clear that KU is a relation which may apply between members of $\alpha_4$, i.e., between universals: universals are subjects of predication. (In fact, it should be noted that KU is exemplified by Aristotle only for such cases.)

Members of $\alpha_2$ and $\alpha_4$ may be called universals, although this term is not used by the author of *Categoricae*. Not only the whole tradition, but the text itself allows us to use that term for members of $\alpha_2$. It seems correct to extend the term to members of $\alpha_4$, and speak along with tradition of universal accidents; but this is again the critical point: the distinction singularity-universality in the accidental realm is not respected by the very author who introduced it.

Members of $\alpha_4$ and $\alpha_3$ are explicitly called individuals in the text itself.

The text analysed in the present section seems to be an exception in the Aristotelian corpus. In the next section we shall observe that a relatively clear treatment of the two ontological relations (KU and EU), such as *Categoricae* offer, is lacking in the main works of Aristotle.

1.3 Universal–singular, substance–accident in other works of Aristotle

It seems that the following two points characterize the situation of Aristotle’s main works (apart from *Categoricae*) in what concerns the present question.

(1) When the distinction singular-universal is stressed, this is done for the realm of substantial entities, not for accidents.

(2) When the distinction substance-accident is stressed, the distinction singular-universal is rather disregarded.

We may speak of an Aristotelian ambiguity in the special sense that a required distinction of universality-singularity within accidents is not respected. The distinction is required by the system, but the author of the system proceeds as if it could be dispensed with. There is a text where

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the question of the One and the Many in categories apart from substance is mentioned, but this seems a rare exception. Thus “accident” becomes an ambiguous term, on the one hand close to “universal” (“attribute”, “predicate”) in so far as it is said of substances, on the other hand close to “individual”, in so far as it is always thought of as a real entity.

Distinguished contemporary Aristotelian scholars (Ross, Tricot, De Rijk, Owens) do not help the reader on this point. They easily assume that accidents are universals, or they vaguely allude to “degrees” of universality in the accidental categories. Perhaps this is natural in so far as one investigates Aristotle ex Aristotele ipso or from traditional standards. The contrary applies if one has in mind the Fregean question: “Eigennname oder Begriffswort?” i.e., if one demands a sharp distinction of individuals and concepts, which in a sense was not possible traditionally because of the idea of essence.

1.4 Universal–singular, substance–accident in the philosophical tradition

General remarks. The fourfold division of entities – or of entia and intentiones, to adopt the weakened terminology of Ioannes a Sancto Thoma – belongs to philosophy up to the present day. The two dimensions of the ontological square are there even among thinkers who would perhaps not accept the Aristotelian doctrine of categories (whose essence is the distinction substance–accident and not, of course, the “ten” categories). Philosophers seem to be classifiable into those who are consistent and explicitly acknowledge the two dimensions, and those who prefer ambiguity.

In so far as in the present section we aim at pointing out the presence of the two ontological dimensions in Western philosophy, there may result a false image of the philosophical past, as if both dimensions had been more clearly distinguished than what they actually were. Indeed, for the tradition in general I think that the ambiguity prevails over the distinction in this question. But here I wish to stress that the distinction has also been made.

1.41 Middle Ages and Renaissance

A few examples indicating the Mediæval and Renaissance vicissitudes of the ontological square will be given here.
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Let us begin with Porphyry (qua significant for the Middle Ages). Porphyry simply eludes the question of the individuality of accidents. This is obvious because he describes the “columns” of categories and he even says that in each category there are species infima, but when it is time to know where the accidental species infima are supposed to be attached, the author of the Isagoge suddenly decides to consider only substances.47

Algazel’s Metaphysics introduces as prima divisio entis the couple substance–accident; and as secunda divisio the couple universal–particular.48

Kaufmann, D. [1] – a critical history of the theory of divine attributes in Jewish philosophy of the Middle Ages – centers on the basic concepts of substance, accident and . . . predicate. These many pages are not understandable without a careful distinction of the two ontological dimensions. Actually this distinction is not made by the author, but how else could one duly appreciate some of his crucial statements?49

John of Salisbury [1] contains a clear restatement of the doctrine of Categoriae.50 It could be observed that this is not surprising since this author is simply commenting on the Categories, and it would be easy to accumulate evidence for the survival of the ontological square from such commentaries. Nevertheless, John of Salisbury’s text is not merely a résumé; he consciously takes Categoriae as clearly explaining “what things are universal, and what ones singular, what ones substances and what ones accidents”.51

In Aquinas’ vocabulary “accidens” and “praedicatum” seem to partially overlap.52 Duns Scotus offers a strong restatement of the ontological square.53 Ockham uses “accidens” in two senses; the key term for one of them is “inhaerentia”, for the other “praedicatio”.54 The same double meaning is again recognizable in “accidentale” and “accidere”.55 In the latter we are provided an example where the term “accidere” is supposed to mean the same as “praedicari”. In the article “inessa” we find again a combination of both perspectives.56

Paulus Venetus – in contrast to Porphyry – frankly speaks of individuals within accidental categories.57 For the relation aequale there is an individual: hoc aequale; for binarius (= two) the individual hic binarius; for triangulus the individual hic triangulus.58

There is a well known distinction in traditional philosophy, which clearly reflects the two senses (universal and singular) of “accident”.

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This is the opposition *accidens praedicabile* and *accidens praedicamentale*, also called logical and ontological accident, respectively. In the 16th century an Aristotelian scholar will correctly ask, after his exposition of Porphyry's *Isagoge*, whether such an entity as *haec albedo* is to be called an accident. The answer is that it is an accident in the sense in which accident is opposed to substance, but not in the sense in which accident is opposed to the other four predicables. In the latter, accident is opposed to essence.

Suarez asks — once more — why there is not a distinction of primary and secondary accidents, corresponding to the same distinction in substances. Suarez's explanation contains the interesting point that that is only a terminological failure: philosophical vocabulary is *de facto* such that individual accidents are not called primary accidents with respect to their universal predicates.

Pacius teaches that everything is either substance or accident, and, again, either universal or particular. In Keckermann we find some interesting ontological theses about individual accidents; individual accidents do not "migrate" from one subject to another, one individual accident — as any other individual — cannot be (inhere) in more than one subject. Keckermann also gives a curious example of individual accident: logic qua inhering in the mind of Aristotle.

1.42  *Descartes, Port-Royal, Locke, Reid*

A few examples concerning the history of the ontological square in modern philosophy will be given here.

In Descartes reality is divided first into substances and attributes (*façons*, modes, qualities) and afterwards attributes are divided into those existing in the things themselves and those existing only in our minds, a particular case of the latter being universals. Thus "attribute" becomes a highly equivocal term, with a meaning ranging from singulars to universals. Thus, too, some theses given by Descartes about attributes cannot be immediately translated into the "predicate-theoretical" language of contemporary logic.

Port-Royal in one sense invites one to compare substance-mode with Frege's individual-concept (because the "unsaturatedness" of modes is very much stressed) but on the other hand *L'Art de Penser* also introduces the (supposedly different) dimension of singularity—universality.
and this may as well (or better) be a candidate for comparisons with Frege’s *Gegenstand* and *Begriff*.

Locke’s achievement in this context may be described as an effort to deprive universal substances (essences) of their “substantive” function (at least, of course, with respect to our knowledge of essences). In terms of the ontological square this means that EU (inherence) no longer has any relata among universal substances. The only sense of “substance” is *being under, supporting*\(^6\), which Locke is obliged to maintain for otherwise one would not be able to conceive how simple ideas (qualities) “should subsist alone nor one in another”.\(^7\) In Locke the idea of individual accidents is still alive\(^8\) and it is Locke who gives the most suggestive explanation of why our vocabulary lacks proper names for individual accidents.\(^9\)

Reid sees an “objection to generalizing” in that even if by abstraction we may consider the attributes of a subject separately from the subject, this will not make them capable of being also attributes of another subject; the weight of one guinea cannot become the weight of another guinea. Reid’s solution consists in restating the doctrine of *Categoriae*.\(^10\) Thus “attribute” means an individual (accident) as well as a universal.

**1.43 Leibniz–Russell**

It is easy to appreciate how the idea of individual accidents is preserved in Leibniz’s thought if one considers what Russell calls a text of “capital importance for the comprehension of Leibniz’s philosophy”.\(^11\)

Leibniz has an ontological axiom according to which accidents – more precisely: individual accidents – cannot inhere in more than one subject.\(^12\) This is not new, but I want to stress that Leibniz does have such an axiom. Individual accidents, say *this white*, are individuals, just as well spatio-temporally located as any other (but inhering, not self-subsisting). While it does not seem absurd to think of a particular white as inhering in this particular piece of paper, in the case of relations one would be led to the disagreeable result of making of every couple of entities related by some relation \(R\) a sort of *Siamese twins*, “joined by cartilaginous band from the one’s right to the other’s left side”.\(^13\) On the one hand, there would be the universal relation \(R\), on the other hand its individual instances transforming any couple of related terms into

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Siamese twins. *This* is the “awkward discovery” made by Leibniz, not the mere fact of having found that there are relations.\textsuperscript{77}

To approach the problem in another way, it should be observed that relations were most familiar in traditional philosophy\textsuperscript{78}; the problem began when the *individuals* of universal two-place predicates were looked for *in rerum natura*.\textsuperscript{79} If “\(aRb\)”, “\(cRd\)” are true sentences (\(a, b, c, d\), being four distinct objects) then there is no trouble as long as one leaves “\(R\)” designating a vaguely floating universal entity, the same for both sentences. But this is Russell’s approach to relations, not Leibniz’s. Leibniz requires that the \(R\) relating \(a\) and \(b\) be *not* the \(R\) relating \(c\) and \(d\), as Socrates is not Plato although both are specifically the same.\textsuperscript{80} Actually one should write \(R_{a,b}\) to designate that individual instance of \(R\) applying between \(a\) and \(b\). The awkwardness of this is due to the fact that \(R_{a,b}\) cannot be thought of except as a concrete and physical individual . . . as a sort of cartilaginous band between \(a\) and \(b\). This leads Leibniz to split \(R_{a,b}\) into two “monadic” accidents, inhering in the referent and relatum respectively.\textsuperscript{81} He prefers to give up thinking of \(R_{a,b}\); he adopts the easy way out of putting \(R_{a,b}\) “in the mind”.\textsuperscript{82} The relation does not become a subjective entity because of being “in the mind” – much less an accident inhering in the mind (as Russell suggests\textsuperscript{83}). It enjoys a pure objectivity and in this shadowy realm of *entia rationis* \(R_{a,b}\) and \(R_{c,d}\) smoothly become the universal \(R\), which is no longer awkward. *Principia Mathematica*’s “\(R\)”, “\(S\)” and other symbols for relations designate entities belonging to that shadowy realm.

An achievement of symbolic logic has been to provide an adequate symbolism for universal relations enjoying objectivity in the mind, but not for individual relations in the sense of Leibniz’s (classic) ontology. It is wrong to oppose such an achievement to a so-called Leibnizian “reductionism”\textsuperscript{84} of relational propositions to subject-predicate ones. Leibniz did not primarily “reduce” propositions or sentences but awkward cartilaginous bands.

When Russell approaches Leibniz he seems to assume what in the next section we shall consider a degenerate ontological square.\textsuperscript{85} A characteristic of the latter is that the two dimensions of *Categoriae* collapse into one, which may be indifferently called “attribution”, “inherence”, “predication”, etc. The terms of this relation are called “subjects”, “substances”, “substrata” on the one hand, and “predicates”,
"attributes", "accidents", "affections", on the other. The latter are assumed to be universals, the former individuals.\

An approach like Russell's is harmless when applied to those chapters of Aristotelianism where the two relations of the ontological square are not clearly distinguished, but this approach fails in such cases as Russell's criticism of Leibniz's philosophy of relations. It is up to further research to see whether other aspects of Russell's criticism (for example, that concerning the identity of indiscernibles) also fall under the same objections.

1.44 'Parallelism' of singular-universal, substance-accident

The two original dimensions have undergone a transformation which may be described in the following way:

(1) Substance-accident is assigned to the world of "real things", i.e., to metaphysics or ontology.

(2) Singularity-universality is assigned to the world of "concepts" or "words", i.e., to logic and grammar.

(3) There is a parallelism - a sort of isomorphism - between the world of logic and grammar and the world of things.

We may represent this situation by the following schema:

Real things (metaphysics, ontology): \(\uparrow\) substance-accident \(\downarrow\)

Concepts, words (logic, grammar): subject-predicate

Certainly the ambiguities of the Aristotelian corpus lie at the origin of such a deformation of the ontological square. In fact, Trendelenburg, a representative of the above version of the ontological square, finds support in the Aristotelian texts themselves. "Authentical judgments" are for Trendelenburg an "image" of how things are in reality. "Judgments" are made up of subject and predicate. But what are subject and predicate? Are they names?

They are names, but they are also concepts. Thanks to the fact that predicates are also concepts, Trendelenburg can speak of universality-singularity without committing himself to nominalism. But it should be clear that this is a clandestine way of preserving the dimension of universality, because "officially" Trendelenburg seems to have under-
stood "predicate" in a purely linguistic sense; this is precisely the point of his thesis about the "grammatical" origin of the Aristotelian categories. Under "subject–predicate" or "judgment", Trendelenburg mixes grammar and logic, concepts and words, and all this is called "formal" as far as it is opposed to the "real" world of substances and accidents. A typical traditional procedure consists in saying that universality–singularity is just something "irrelevant", but making at the same time much use of that distinction. Intellectus facit universalitatem; in this sense universality is something incidental, something just "happening" to a thing, and one may dispense with analysing it. On such an assumption it may be banished from the Transzendentalphilosophie and thrust into "general logic". In the frame of transcendental idealism there are "substances" and "accidents", both being always "real". This is made to correspond with categorical judgments whose structure is subject–predicate. And here, under "predicate" (or "concept") universality takes refuge; it continues to be an essential thread throughout the Critique of Pure Reason, where, so to speak, it is used but not mentioned.

1.45 Husserl. Pseudo-properties of properties: Carnap, Ingarden, F. Kaufmann

In the Husserlian notion of "moments" of a thing we find an impressive analogon of individual accidents. Each piece of red paper has its individuelle Röte, which is an Einzelfall of the Spezies Röte; the individual rednesses (Rotmomente) are only equal (gleich) among themselves.

In an early text Husserl comes across a sort of vestige of the ontological square. J. Bergmann had introduced a classification of "ideas" by means of two criteria: singular–universal, concrete–abstract. Husserl's criticism of this appearance of the ontological square is interesting because he says that such a classification does not allow for giving a place (placieren) to some special kinds of entities. I understand that Husserl means that in Bergmann's classification there is no room for "higher predicates" or ideal entities (species, etc.). If my interpretation is correct, Husserl's criticism would be particularly interesting for, in fact, those are the things which cannot be immediately annexed to the ontological square (because of the peculiarities of the Aristotelian predication theory).

A curious way of observing how the two ontological dimensions are
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intimately related in different periods of the history of philosophy is to consider a sophism whose "secret" lies in passing from one of these dimensions to the other. The Greek commentators Simplicius and Elias comment on this sophism precisely within their analysis of *Categoriae*[^105]. A version of the sophism is, for example: man is white, white is a colour, man is a colour. Husserl considers this sophism (in another variant) as an illegitimate application of the principle *nota notae est nota rei*.[^106] In Husserl’s language this sophism consists in passing from a thing to one of its "moments" and from this to a universal entity (universal with respect to the "moment", not to the thing).

Carnap’s solution of the sophism would be different. He views *colour* as a property of properties, for instance as a property of the property *white*; therefore, in the Fregean or modern logic’s theory of predication, *colour* will not “descend” to the individual. Nevertheless, such a solution of the sophism depends itself on a grave ambiguity. In fact, when Carnap[^107] gives the example "the word ‘colour’ designates a property of properties", we must assume a change in the meaning of “property”, because otherwise an *abstract* object (as a property is supposed to be) would be a colour, i.e., a visible entity. Obviously *colour* is not a property of properties, if “property” is to preserve its usual meaning[^108]. From the point of view of classical ontology (or Husserl’s theory of *moments*) colour is a property of an accident (moment).

In Husserl’s school there has also been an ambiguous use of “property”, similar to Carnap’s. Ingarden [1] formulates a paradox concerning *properties of properties*[^109]; he says that on the one hand a property of a property of an object is not a property of the object, but on the other hand he points out that a property of a property of an object should still be thought of as “belonging” to the object.

This paradox disappears as soon as one observes that Ingarden [1] works with *two* senses of “property”; that a property of properties should “belong” to the individual is plausible on the assumption that properties are Husserlian *moments* (as Ingarden says) or that “accidens non excedit subiectum suum”[^110] (to use a classical formula).

Having observed such an ambiguity in Carnap’s and Ingarden’s use of “property”, it would not seem unlikely to find something similar in the works of F. Kaufmann, an author depending both on Husserl and on the Vienna circle, and who rejects the idea of properties of

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properties.\textsuperscript{111} (This rejection is one of his basic insights, from which he tries to make meaningless the higher-order predicate calculus.) In fact the main examples of properties of properties discussed by F. Kaufmann (\textit{Farbe, Helligkeit}) suggest that he had in mind Husserlian “moments”, which makes his argument suspicious. There is even a more definite objection to F. Kaufmann’s theories, namely, that his properties of properties seem to be visualized rather as class-inclusion (Frege’s UO). As a result, F. Kaufmann’s discussion would be vitiated by two kinds of pseudo-properties of properties: the first, where properties of properties are mixed up with accidents (or moments), the second, where properties of properties are just concepts of a wider extension.\textsuperscript{112}

It would not be difficult to accumulate further examples of modern philosophers of logic who are still entangled in the ancient difficulties of the ontological square.\textsuperscript{113}

1.46 Frege

A comparison of Frege’s \textit{Ungesättigtheit} with the first chapter of Book Z of Aristotle’s \textit{Metaphysics} may suggest an immediate identification. Aristotle opposes substances to other things which have the peculiarity that they involve an essential reference to the former. And from Aristotle to Kant passing through Port-Royal there are “quasi-things” whose characteristic is to be \textit{ens entis} rather than \textit{ens} proper.

If one stays in the line of Scholz, in the sense of comparing classical ontology with contemporary “predicate-theoretical” logic\textsuperscript{114}, the above mentioned identification would impose itself as obvious.

But a closer inspection shows that the first chapter of Book Z of \textit{Metaphysics} conceals a grave ambiguity with respect to the two ontological dimensions. Therefore, a comparison of Frege’s “Ungesättigtheit” with traditional philosophy is not possible unless one previously answers the question whether “traditional” unsaturatedness applies to one or both of the two ontological dimensions (assuming that it is already established that one or both of these dimensions is to be found in Frege’s system, say, that \textit{predication} is \textit{falling under a concept}).

A term which frequently recurs in Frege’s texts is: “(un)selbständig”. This word appears first, perhaps, in BG\textsuperscript{115} in an important context. We may say that to understand the term “selbständig” in GRL is equivalent to having some insight into Frege’s philosophy of numbers.\textsuperscript{116} In a late
paper, published in 1918\textsuperscript{117}, Frege uses “(un)selbständig” in another significant context.

Therefore it is appropriate to analyse more deeply Frege’s conception of \textit{selbständig}. In so doing one is brought to consider the two ontological dimensions. First, because Frege himself uses “selbständig” with connotations which strongly recall some traditional ontological theses\textsuperscript{118}; secondly, if one looks for the possible sources of Frege’s term or for the philosophical history of the term itself it seems that the most accurate accounts one may obtain are formulated by means of the two ontological dimensions.\textsuperscript{119}

If one is puzzled by some irregular uses of the important term “Eigenschaft” in Frege’s books, it seems necessary to take into account the two ontological dimensions. Frege in fact uses in some cases “Eigenschaft” in the sense of individual accident.\textsuperscript{120} This happens, for instance, in the context of his philosophy of number in GRL.\textsuperscript{121}

Frege’s rejection of predicates of predicates in the explicit sense appears as a most suggestive fact in the history of philosophy. But shall we compare it with Aristotle’s “there is no accident of accident”?\textsuperscript{122}

In Frege’s \textit{Sinn} there is perhaps some need for taking into account a distinction between \textit{aspects} of a thing and \textit{concepts} under which the thing falls.

At the same time (at least in natural languages) there are senses lacking a reference. Now, while this may be easily formulated by saying that there are empty-concepts, it would be a \textit{tour de force} to say that there are empty-aspects.\textsuperscript{123} If “the Morning Star” has a sense but lacks a reference, it is natural to think of that sense as an empty concept, but it is unnatural to think of it as an “empty aspect of Venus”. This is due to the fact that aspects are meant to be concrete properties, rather similar to individual accidents. Individual accidents which do not inhere were already a difficult question for classical ontologists and theologians.

Two other applications of the ontological square in the present work are the following: (1) The semantics of so-called “general” or “common” names may have been influenced by the relation of \textit{inherence}. The name of an accident (universal accident) includes a reference to the substance, in the sense that (individual) accidents must inhere in substances. The metaphysical stress on the dependence of accidents upon substances increases the importance of the “denotation” (as

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opposed to the “connotation”) of names of concepts belonging to the “accidental” sphere. White things (to take Mill’s example of denotation) are not only important as containing the instances of a universal, but also as subjects “in which” such instances can exist. The standard form of the Aristotelian predication theory can be explained only in terms of the two ontological dimensions.

REFERENCES

1. A rich critical history of the problem of the two metaphysics is to be found in Owens [1], Part I, Chapter I. The author records the different views since the Greek commentators until our times.2
2. Aristotle [2], Γ, 3, 1005a, 22: ἄξιον γὰρ ὑπάρχει τοῖς ὅθεν ἄλλοι γενεῖ τινι... is the reason given for counting the “axioms” as part of the philosophia prima.
3. For the appearance of this name, cf. Ferrater Mora [1], where the use of “ontology” before Wolff is studied.
4. Pichler [1].
6. Signo et litera initiale de vocabulo graeco ἢστι (Peano [1], I, § 1).
7. The subject-matter of logic is for Frege die Gesetze des Wahrseins which are the logical laws, only secondarily the Schlußregeln (cf. Bartlett [1], p. 3). “Logic” is said also to contain such subjects as Verneinung (negation), Subsumption, Unterordnung (subordination), Identität... (UGG₃ (III), p. 428). If Frege speaks here of “logical” relations he is merely the victim of a situation he himself helped to destroy (cf. Chapters 5 and 7).
For “ontology” in modern philosophy, let us consider the following text of Baumgarten: “Ontologia [= die Grundwissenschaft, says the author in a footnote] (ontosophia, metaphysica, metaphysica universalis, architectonica, philosophia prima) est scientia praecedatorum entis generaliorum” (Baumgarten [1], § 4). Or the well known definition of Wolff: “Quoniam Ontologia de ente in genere agit, ea demonstrare debet, quae omnibus entibus sive absolute sive sub data quadem conditione conveniunt” (Wolff [1], § 8).
8. Baumgarten [1], sectio VIII of “praedicata relativa entis” is devoted to “signum et signatum”.
10. For example, FUB, p. 17, GRG I, p. 7.
11. Heidegger [1]: “Was ist denn nach einem Ding? Ein Kern, um den viele wechselnde Eigenschaften herumliegen, oder ein Träger, dem diese Eigenschaften aufliegen, etwas, was anderes besitzt, an sich hat. Wie wir es auch drehen und wenden, der Bau der Dinge zeigt sich so...” (p. 25).
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"Was ist also ein Ding? Antwort: Ein Ding ist der vorhandene Träger vieler an ihm vorhandener und dabei wechselnder Eigenschaften... Die überlieferte Wesensbestimmung der Dingheit des Dinges können wir in den bekannten und geläufigen Titeln festhalten:
1. Unterlage – was immer schon dabei steht, sich auch mit eingestellt hat.
2. Substantia – accident.
3. Träger – Eigenschaften.

The last couple, subject-predicate, belongs to the structure (Bau) of the sentence, and corresponds (genau angemessen) to a similar structure of the thing (substratum–property, p. 28). Heidegger [3], § 33 should be also considered here.

12. “... diese Sätze [logical laws] sprechen von nichts anderem als von Individuen und Eigenschaften” (Scholz-Hasenjaeger [1], p. 13). The same is implied by Hilbert–Ackermann [1], p. 50; Lorenzen [1], § 1, etc., etc.

13. The absolute separation of “logic” and “reality” is expressed with particular force by Clauberg, who acknowledges (in agreement with tradition) that both disciplines (logic and metaphysics) are equally universal, but “inter Metaphysicae ac Logicae subjectum infinita est distantia, quatenus nullum esse reale commune habent” (quoted in Ferrater Mora [1], p. 39–40).

14. On the authenticity of Categoriae see De Rijk [2].

15. Let us consider Jungius’ paraphrase of the Aristotelian text:
Quaedam in Subjecto sunt, de Subjecto vero nullo dicuntur, ut Accidentia praedicamentalia singularia, ut haec superficies, hic color, haec Virtus.
Quaedam et de Subjecto dicuntur, et in Subjecto sunt, ut accidentia universalia, sive Genera et Species Accidentium praedicamentium ut Superficies, color nigrities, sapor, dulcedo.
Quaedam neque de Subjecto dicuntur, neque in Subjecto sunt, ut Substantiae singulares sive individuae, ut Socrates, Cicero, Bucephalus" (Jungius [1], p. 16).

Boethius calls the division of entities into ten categories the divisio maxima, the present classification into four classes of entities the divisio parvissima. But unfortunately Boethius does not provide further explanations as to how both divisions and how the two fundamental relations (singular–universal, substance–accident) should be combined (Boethius [1]).

16. Cf. Prantl [1], Vol. I, p. 685. Also Boethius [1]. We find the square in such important editions as Averroes [1] and Pacius [3].

17. Ioannes a Sto. Thoma [1], p. 476:
"Atque ita in hoc tertio antepredicamento distinguist Aristoteles duplex genus entium, scilicet substantiam et accidentes, ut duplex genus intentionum, scilicet universalitatis et singularitatis."

18. Fernandez–Garcia [1]: distinctio ens–res. It is interesting to consider also the following earlier text:
"Thus the word 'thing' may admit of a wider extension, whereby it may apply to universals, even though Aristotle says that the latter are to be understood as abstracted from particular things in such a way that they would have no existence in the absence of the aforesaid” (John of Salisbury [1], p. 140 = Book II, Ch. 20).
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19. ἐν ἑποξεμένῳ εἶναι.
20. καθ’ ἑποξεμένου λέγεσθαι.
22. “to be predicated univocally”, Aristotle [1], 3a, 33; 3b, 9; cf. Simplicius [1], p. 52.
23. “Belongs to” (approximately).
24. “Separately” (approximately).
25. The possibility of sometimes predicking the name will actually develop into a wider theory of predication (cf. Section 4.2).
27. “Subiectum in praesentia non sumitur eodem modo; cum enim asservitur aliquid dici de subiecto, accipitur subiectum pro subiecto praedicationis; at cum diciur, aliquid esse in subiecto, usurpatur pro subiecto inhaesionis” (Gasconius [1], II, 67a). Cf. Simplicius [1], p. 53, 25.
28. For example, 3a, 7–15.
29. Aristotle [1], Chapter 5, in particular 3a, 7–32.
30. Cf. Jungius’ paraphrase (quoted above) and especially Boethius [1].
31. This is clear in Aristotle [1], 1b, 13; 1b, 20–24; 2b, 19 and especially the passage 3a, 33–3b, 10.
32. The term συμβεβεβηκός does not appear in Categoriae but we follow tradition, for example, Boethius [1]. Cf. also Van Auben [1], 399–400.
33. This is not clear in the basic text (1a, 20–1b, 10) but it is obvious in 2b, 1–3. “Tum primae quam secundae substantiae subiectur accidentibus”, says Pacius [2], cap. 3, n. 3. This is a fundamental point in traditional ontology whose effects on traditional logic may be easily foreseen. If properties (accidents) inhere in man as well as in this man, one may presume that they will also be said of man as well as of this man.

Do individual accidents inhere also in universal substances? The basic text (1a, 20–1b, 10) does perhaps allow this (taking for example “ψυχή” in 1a, 26 as a universal). But we should by not forcing the text in a question which is precisely the weak point of Aristotelian ontology: singularity-universality in accidents.

34. Aristotle [1], 3b, 17.
35. τὸ καθ’ ἑκαστὸν (2a, 35–2b, 3); ἑτοίμα καὶ ἐν ἄφθιμῳ (1b, 6); ἑτοίμα (3a, 35).

The individuality of members of ἁρών is explicitly assigned by 1b, 6 and 4a, 14–17. 11a, 20–36 cannot be used for this because there τὸ καθ’ ἑκαστα seems rather to designate subordinate concepts.
36. For the meaning of these terms cf. Bonitz [1], articles καθόλου and οὐσία. Universal is described not only by means of “being predicatable of” but also by the Greek term ἐτάξαν; this is the origin of the traditional double characterization of universals as being said de multis and being in multis, “universale in praedicando” and “universale in essendo”. The definition of EU in Categoriae (cf. Section 1.2) still serves to characterize the opposition substance-accident in the main Aristotelian works, except that now accidents may always, not only sometimes, be said of their substances. (This corresponds to a predication theory different from that of Categoriae, cf. Section 4.2.)
37. Aristotle [1], Perihermeneia, 7, 17a, 38–40, boldly divides ta pragma into universals and singulars, but the only examples given are man and Callias. In Aristotle [4], B, 3, 195b, 13–15, we may be momentarily attracted by the fact
that such terms as “genus”, “individual”, “accident” appear together, but this is useless for the purposes of the present research because there the term “accident” means rather what is incidental. Aristotle [2], B, 6, 1003a, 7ff. illustrates the distinction universal—singular by means of Socrates, animal, man. Aristotle [2], Δ, 6, 1015b, 16–34, actually refers to both dimensions but the distinction universal—singular is considered only for substances.

38. Perhaps the most significant passage exemplifying this is Aristotle [2], Z, 1: the main opposition there is between substance and non-substance; if some hint at universality—singularity is to be found, this concerns only substances. Aristotle [2], Γ, 2, contains also an important formulation of the metaphysical program. The dominant opposition is again ousia vs. non-ousia, but it is impossible to find an explicit or adequate reference to the other dimension.

39. Aristotle [2], N, 2, 1089b, 20–28. We quote Ross’ paraphrase: “In the categories other than substance there is another problem as to how things are many; no doubt, since they do not exist apart, they are many through the substratum taking on many qualities, &c.; but there must be a matter for each category, only it cannot be one existing apart from substance” (Vol. II, p. 469). Cf. also:

“The special difficulty attaching to the minor categories is that of assigning to each a matter which shall render plurality possible without being separable from substance . . .” (Ibid., p. 477).

40. It may be inferred from such passages as Aristotle [2], Α, 5, 1071a, 20 (until the end) that accidents are individuals because (a) universals do not exist (1071a, 19) and (b) if substances would disappear, all other things would likewise disappear, which means that accidents do exist (when substances exist). The same could be inferred from the first lines of Α plus Pseudo-Alexander’s commentary (in Aristotle [2.1], Vol. II, p. 643, note 1). But this tends simply to confuse the reader. Sometimes accidents are individual, real entities; sometimes they are predicated of substances, i.e., they are universals. (Of course, examples of accidents being predicated of substances are to be found everywhere in the main Aristotelian works, apart from Categoriae’s peculiar first pages; that is in fact the standard, in opposition to Categoriae, Aristotelian predication theory; cf. Section 4.2.)

41. Tricot (in Aristotle [2.1], Vol. I, p. 289, note 1) depending on Alexander and Bonitz; Ross (in Aristotle [2], Vol. I, p. 323) also depending on Alexander. For the second point, Ross in Aristotle [2], Vol. I, p. LXXXVII; also Ross’ commentary on Metaphysics I, 1054, b, 35, where an expression equivalent to “Porphyrian tree” appears, but where, as in Porphyry, complete obscurity reigns as to which are the bases of the accidental Porphyrian trees.

De Rijk [1], p. 70–71, deals with the present question, and he affirms that the reason is to be found in the peculiarities of “the” Aristotelian theory of predication. But “the” Aristotelian theory which he means is that of Analytica Posteriora, and moreover a theory which Aristotle seems to propose only incidentally (“if we are to legislate”). Therefore, the predication theory meant by De Rijk does not seem to explain – as he suggests – why Aristotle is silent about singular–universal in accidents.

Owens [1] does not appear to consider at all the problem of singularity–universality in accidents. This is all the more significant as this study is especially concerned with universal–singular relations (but apparently only in the substantial domain).
A particular case is Scholz, who approached classical texts on ontology from a perspective of modern predicate-calculus. May “huparcheîn” always be translated into contemporary predicate-theoretical standards? (cf. Scholz–Hasenjaeger [1], p. 13, note). One may conjecture that Scholz, according to such an approach, would have translated the famous “non est accidentis accidenti” (Metaphysics, I, 4) with “there are no predicates of predicates”. But this, especially from the point of view of the whole tradition, would be a most questionable version. Also, in Scholz [2] it is said (p. 140) that to define the existence of classes as their non-emptiness is to be Aristotelian rather than Platonist; this may be correct in itself, but Scholz supports his statement by evoking such Aristotelian theses as “ta pathe do not exist apart from substances”. Now, does “pathe” designate individual or universal accidents? Scholz’s well-known comparison of old ontology with modern logic should perhaps be re-examined; in doing so the two ontological dimensions should be taken into account.

Owen [1] is a recent discussion related to the ontological square. The author stresses that the Aristotelian texts do not sufficiently support the thesis that individual accidents cannot be found in more than one subject. This thesis is viewed by the author as “a dogma” originating with Aristotle’s interpreters. The author also stresses that such a dogma entails many difficulties. But the absence of the dogma in Aristotle raises in fact even more difficulties, which are not accounted for by Owen [1].

42. GRG II, § 151 (in the analysis of contents).
43. Cf. Sections 2.61 and 6.4.
44. Cf. Section 1.2, note 17.
45. Cf. Sections 1.45 and 1.46.
46. In the Renaissance I include the second scholastics. (For this term “second scholastics”, cf. Giacon [1]. For the usual “restricted” conception of “Medieval philosophy”, cf. De Wulf [1], n. 15 and 449.)
47. Porphyry [1], Isagoge, 2a, 5–13. Aaron [1], Section 2, finds it strange that Porphyry poses the problem (of universals) in terms of thing-universals only (thing-universals as opposed to qualities or relations). Actually within the framework of a strict Aristotelianism it would be strange to find somebody paying attention to the problem of universals within the accidental domain. It is indeed strange to find so many authors (especially in the Middle Ages) stressing the singular–universal question in the case of accidents. Incidentally, Aaron [1] makes extensive use of the opposition thing–universal and qualities or relations (pp. 3ff, 26, 33, 36, 40, 104, 176, 191, 217–8, 234, 237), but the connection of this modern-philosophy terminology to its source – the ontological square – is not clear. (The author gives one reference to Categoricae’s individuality of accidents on p. 10.)
48. Algazel [1], Tract. primus, div. prima, div. secunda. The second section of the divisio secunda is entitled: “Universale non potest habere plura singularia nisi unumquodque discernatur ab alio.” This involves something akin to the principle of indicernibiles, but with an awareness of the two dimensions of classical ontology.
49. For example: “Ich will einen allgemeinen Satz vorausschicken: alle Substanzen oder Accidenzen oder auch Attribute von Substanzen und Accidenzen mit denen man in dieser Hinsicht auf ihn [Gott] hinweist, sind weder in großem noch in kleinem Umfange auf den Schöpfer anwendbar” (Kaufmann [1], p. 54).
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50. “In like manner, and with due proportion, those quantities and qualities which are individually present in primary substances may also be called “primary”, while those quantities which are abstracted from particular things by an analogous process [quandam ratione similitudinis] may be termed “secondary”. The same holds with the other predicaments” (John of Salisbury [1], p. 161 = Chapter 3, Book 3).

51. Ibid., p. 156.

52. Schütz [1], article “accidens”, b), third line.


54. Baudry [1].

55. Ibid.

56. “Uno modo idem est [Ockham is explaining the meanings of “inesse”] quod inhaerere realiter sicut accidens inest subjecto et forma materiae. Alio modo idem est quod praedicari.”

The term “inessa” will be enthusiastically adopted by Leibniz (Couturat [1], p. 10).

57. Paulus Venetus [1], tract. 1, cap. XVI, de praedicamentis.

58. This is an interesting background, which may be taken into account in regard to the famous Berkeley discussion of the idea of triangle.


60. Suarez [1], 39, 1, 1 and 16; cf. the text quoted above in note 50.

61. Pacius [2], cap. 2, n. 16 and 20.

62. Keckermann [1], Index: “Accidentes . . . numero unum de subjecto non migrat in subjectum . . . numero unum in subjectis numero diversis esse nequit . . .”

63. Ibid., Liber I, cap. 5 (p. 72): “Sic Logica quae fuit in Aristotele, non fuit idea vel species, sed Logica individua et singularis.” Keckermann adds: “Scholasticorum Canon huic pertinet: Accidentia numerantur ad numerum subjectorum.”

64. Descartes [1], §§ 51, 57. Gilson [3], p. 46, gives a list of passages where Descartes refers to “chooses particulières et universelles”.

65. For example, Descartes [1], § 52 in fine, asserts that when we come across a property we may conclude that there is a substance having that property. This is not the ontological argument . . . but probably an obvious argument about properties understood as individual accidents. Ibid. n. 61, Descartes examines the distinction modale; he considers four cases of distinction: (i) between a mode and a substance, (ii) between two modes of the same substance, (iii) between a mode of a substance and another substance, (iv) between a mode of a substance and a mode of another substance. Obviously, this is conceived in terms of properties-of-a-given-individual.

66. Contraary to Scholz’s program, cf. Scholz [7], for example, p. 414.

67. Port-Royal [1], Premiere partie, Chapitre 2: “On ne scauroit nier ce rapport du mode, qu’on ne detruise l’idée qu’on en avoit.”

68. Ibid., Chapitre 6.

69. Accidents “stick on” substances; substances are “under-propping” (Locke [1], II, 13, § 20).

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70. Locke [1], II, 23, § 4.

71. “In the notice that our senses take of the constant vicissitude of things, we cannot but observe that several particulars, both qualities and substances, begin to exist” (Locke [1], II, 26, § 1, italics ours).

72. “This is further to be observed concerning substances, that they alone of all our several sorts of ideas have particular or proper names, whereby one only particular thing is signified. Because in simple ideas, modes, and relations, it seldom happens that men have occasion to mention often this or that particular when it is observed” (Locke [1], III, 6, § 42).

73. “On this account, if one should say, that the whiteness of this sheet is the whiteness of another sheet, every man perceives this to be absurd” (Reid [1], p. 327, Essay V, Ch. 3).

74. “To this I answer, that the whiteness of this sheet is one thing, whiteness is another; the conceptions signified by these two forms of speech are as different as the expressions; the first signifies an individual quality really existing and is not a general conception, though it be an abstract one; the second signifies a general conception, which implies no existence, but may be predicated of every thing that is white, and in the same sense” (ibid.).

75. In such terms Russell [1], § 10, describes a passage of Leibniz’s polemics with Clarke (in Leibniz [1], vol. VII, p. 400–401).

76. “Car deux sujets differens, comme A et B, ne sauroient avoir precisement la meme affection individuelle, un meme accident individuel ne se pouvant point trouver en deux sujets, ny passer de sujet en sujet” (Leibniz [1], loc. cit.).

77. The Concise Oxford Dictionary of Current English (1949), article “Siamese”.

78. Russell [1], § 10: “After he has seemed for a moment to realize that relation is something distinct from, and independent of, subject and accident, he thrusts aside the awkward discovery.” If Russell means universal relation (that R which applies between a and b as well as between c and d), then (1), it is not true to say that Leibniz rejects them, for he still assigns to them an objective ontological status in the mind (cf. note 83); (2), moreover, Russell’s statement would not fit with the Leibnizian text where individual relations are meant (cf. note 79).

79. If Russell means individual relation (that $R_{a,b}$ which is an individual instance of $R$ applying between a and b), then the Leibnizian discovery is indeed so awkward that one wonders how Leibniz could do otherwise than to thrust it aside. But the second alternative seems improbable.

80. “Itaque plena omnium relationum in mundo, nec res uta nascitur, quin infinitae propemodum cum ea nascantur relationes” (Keckermann [1], Lib. I, cap. XII = p. 115).

81. The fragment quoted by Russell [1], § 10, does not mention individual accidents but only accidents. It is obvious, however, from the immediately preceding context that Leibniz is simply abbreviating “accident” for “individual accident”. The fragment quoted by Russell is intended by Leibniz as an example of his previously formulated thesis about individual accidents (cf. our note 75).

82. Leibniz would say: $R_{a,b}$ and $R_{a,d}$ conviennent seulement (loc. cit., p. 401 above). For a modern approach to these “concrete” properties cf. Küng [1] and [2], following note.

83. Leibniz says, in the English translation quoted by Russell: “You will not, I believe, admit an accident which is in two subjects at once. Thus, I hold, as regards relations, that paternity in David is one thing, and filiation in Solomon
is another, but the relation common to both is a merely mental thing, of which the modifications of singulars are the foundation” (in Russell [1], Appendix, ad § 10).

83. Russell [1], § 10. The critical phrase “being in the mind” has primarily an objective sense in traditional philosophy. Leibniz himself would say, for example, that necessary truths are dans l’entendement (Leibniz [1], Vol. V, p. 76).

84. Dependent on Russell’s interpretation are Maritain [1] (n. 40, b), Scholz–Hasenjaeger [1], § 84. Bergmann [1] is perhaps the only adequate approach to Leibniz in the present questions; but still it would seem that even Prof. Bergmann does not point to the ultimate source of Leibniz’s difficulty with relations, i.e., the awkwardness of individual instances of relations. Leibniz’s difficulty was to find a model – a sound model – for hoc aequale, not for aequale (to take Paulus Venetus’ example of a relation and its individual instance, cf. note 57).

85. In particular Russell [1], § 4.

86. In such a context it is meaningless to speak of properties “migrating” from one subject to another (cf. note 75) and in fact Russell does not consider this aspect of Leibniz’s ontology (for example, Russell [1], § 67, where the text quoted in our note 75 is paraphrased but the phrase on migration of properties is curiously dropped).

87. Russell [1], § 23.

88. For instance Trendelenburg [1], pp. 14–15.

89. “Wo ein Urteil im eigentlichen Sinne vorliegt, so daß es die Sache aussagt, wie sie wird, ist das Subject die erzeugende Substanz (οὐσία). Die ausgesagten Begriffe (κατηγορομένα im eigentlichen Sinne) setzen das Subject voraus, und, inwiefern sie nicht Substanzen sind, sind sie, real gefaßt, in der Substanz συμβεβλητότα” (Trendelenburg [1], p. 210).

The “authenticity” of a “judgment” is determined by Aristotle’s ruling on correct predication (Analytica Posteriora I, 22; cf. Trendelenburg’s text referred to in the preceding note).

90. The clandestine introduction of concepts under the heading of “predicate” is clear, for example, in the following text: “Hiernach erscheinen die Kategorien als die allgemeinen Begriffe, unter welche die Prädikate des einfachen Satzes fallen... Die Kategorien sind die allgemeinsten Prädikaten” (Trendelenburg [1], p. 20).

One may compare this use of “Fallen unter” with Frege’s. This is an occasion to appreciate the importance of Frege’s stressing the necessity of distinguishing names and designata.

In the text quoted in note 89 we had already seen the expression “ausgesagten Begriffe”; the same phrase occurs in p. 19 of Trendelenburg [1]. The “judgment” is analysed into subject–predicate, but “predicate” ambiguously covers linguistic as well as non-linguistic entities (i.e. universals, concepts).

91. Cf. for instance the description of categories as die allgemeinen Begriffe in the text quoted in the preceding note.

92. Therefore, in the polemic between Trendelenburg and Bonitz about the significance of the categories, it appears how ambiguous the very formulation of the problem is.

93. For the opposition “formal” and “real”, cf. Trendelenburg [1], p. 18, below.

94. How essential predication is to be understood, remains obscure in the “parallelism” version of the ontological square. Trendelenburg [1], p. 16, mentions
this kind of predication without, however, saying whether or how it fits with the correspondence between substance-accident and subject-predicate. In the text quoted in note 89, there is only a negative reference.

95. This is an old and fundamental approach to universals.

96. A typical Aristotelian scholar of the 16th century would teach that the division of entities into singulare and universales is a "divisio subiecti in accidentia, nam cuilibet rei sive enti accidit ratio universalis et singularis; ut enim superius diximus, res ipsa neque per se universalis est, neque singularis, sed potius illud ei convenit per abstractionem intellectus, hoc vero per condiciones particulares" (Gasconius [1], II, 67a, below).

Kant teaches that in concepts there is a Materie and a Form. The former is the Gegenstand (here, obviously, as in Gasconius: Gegenstand = res, indifferent or neutral with respect to universality and singularity; not Gegenstand = existing individual given, for instance, in the Anschauung); the latter is the Allgemeinheit. Now, universality is always made by us, jenerzeit gemacht (Kant [2], §§ 2, 4, 5).

97. As Kant puts it: "er [i.e., the distinction singular–universal] keinen Unterschied in der Beschaffenheit der Dinge, sondern nur des Gebrauchs der Begriffe, ob sie im allgemeinen oder auß einzelne angewandt werden, anzeigt" (Kant [4], Erst. Abschn., C, fourth note).

98. Eisler [1], "Akzidenzen".


100. Heidegger also seems to support the "parallelism" version described in the present section (cf. Heidegger [1], p. 28). A recent version is the following: "Aristotle's position in logic, that every proposition is reducible to subject-predicate form, is paralleled by his metaphysical doctrine that the world consists of substances under attributes" (Körner [1], p. 21).

101. Husserl [1], 1, §§ 31, 34, 39. As for the other dimension cf. Husserl [1], I. Untersuchung, § 15, where universality is described in the following terms: "Fähigkeit, auf eine Vielheit von Gegenständen prädikativ bezogen zu werden".

102. Husserl [2], Erster Artikel.

103. Bergmann, J. [1], § 5, 2 and 3.

104. Cf. Section 5.32.


106. Husserl [1], I, 41.


108. Reichenbach [1], p. 53 and [2], pp. 27–28 suggests that "property" has to be understood in two senses. One of them involves the so-called "specific properties" of an entity; a specific property of x is for instance the individual motion of x and it is only of this specific property that we may predicate the (higher property?) of being slow. Unfortunately, Reichenbach does not develop this question systematically. Let us only observe that "specific properties" are, in classical terms, individual accidents.

halten" ist, zu. Somit muß sie mit allem und jedem in ihr Unterscheidbaren in den Seinsbereich des betreffenden Gegenstandes fallen. Wenn dagegen das der Eigenschaft Zukunftende dem entsprechenden Gegenstande nicht zukommt, so liegen, wie es scheint, mindestens die vermeintlichen Eigenschaften der Eigenschaft außerhalb des Seinsbereiches des betreffenden Gegenstandes."

110. Schütz [1] article "accidens". This impressive thesis of classical ontology underlies the paradox discussed by Ingarden [1].

111. F. Kaufmann [1] (pp. 18–19) and [2].

112. F. Kaufmann [1] ibid.: "Wie steht es aber demgegenüber mit der Behauptung, daß eine bestimmte Eigenschaft $E_1$ (z.B., eine bestimmte Farbe) eine bestimmte "Eigenschaft" $E_2$ (z.B. eine bestimmte Helligkeit) habe? Da zeigt es sich, das eine Eigenschaft (Farbe) $E_1$ als bestimmt überhaupt nur dann gelten kann, wenn feststeht, ob sie die "Eigenschaft" $E_2$ (bestimmte Helligkeit) besitzt oder nicht."
The situation described by this text may be expressed by the following schema:

\[
\text{Farbe} \downarrow \\
\text{bestimmte Helligkeit} \rightarrow \text{bestimmte Farbe}.
\]

Now this is (in my view) quite similar to the familiar schema

\[
\text{animal} \downarrow \\
\text{rationalis} \rightarrow \text{homo}.
\]

In fact, F. Kaufmann seems to have in mind that rationalis is not a property of a determined animal (homo) for it is only due to rationalis that one may speak at all of a "determined" animal. Thereby F. Kaufmann apparently assumes that to speak of a property of an object $a$ implies that $a$ is "already" a sufficiently determined entity, regardless of its having or not having the property in question (ibid.). Actually his rejection of properties of properties seems also to involve the pointing out of an ambiguity in "property" rather than to reject as absolutely meaningless the locution "properties of property" (ibid.).

F. Kaufmann denounces the meaningfulness of this phrase in the famous (Fregean) example of existence as property of properties (ibid.). He says, that it is unsinnig to assign a spatio-temporal property (i.e., "to have three individuals in such a place and such a time") to a property which is not a spatio-temporal entity.

It is curious that F. Kaufmann has not discussed examples of a more properly mathematical nature (for instance, to be local as a property of properties of functions).

In any case, it should be observed that F. Kaufmann's pretended "Ausschaltung" of the infinite from mathematics (cf. the title of F. Kaufmann [1]) largely depends on these ontological subtleties; for instance, he partially eliminates the possibility of speaking of sets of sets by referring to his doctrine on properties of properties (cf. F. Kaufmann [1], p. 98–99).

113. Bolzano [1] (§ 178) discusses sentences of the form "$A$, als ein $C$, ist $B$", i.e., the so-called "reduplicative" sentences. For instance, "Cajus, als Musiker, ist unübertrefflich" is interpreted by Bolzano as meaning that "die Beschaffenheit $C$ des $A$ hat die Beschaffenheit $B$". But this would not be readily admitted by Frege as an example of properties of properties; for the same reasons Frege would be suspicious of the examples of "types" and "orders" given by Crahay [1], p. 48.
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114. Cf. for example Scholz [7]: "...über der eigenschaftstheoretischen Ontologie des Aristoteles eine unanfechtbare eigenschaftstheoretische Logik zu konstruieren..." (p. 414).
115. BG., p. 17.
117. GED.
118. GED., pp. 67–68: Vorstellungen are not selbständig; they require a subject, a Träger; moreover, "Jede Vorstellung hat nur einen Träger", which corresponds to the Leibnizian (traditional) axiom that an accident cannot inhere in more than one subject.
119. Trendelenburg [1], which is a possible philosophical source of Frege (cf. BG, Vorwort). The Selbständigkeit of individual substances is determined in a double way: negatively or logically as that which is not a predicate, and "really" (real) as that which is not in (does not inhere in) another entity (p. 21, note 2; also pp. 53–54).
120. GRL, §§21–25, cf. Section 10.11; GRG II, p. 125; GED p. 61, cf. Chapter 2, note 82. It is not clear to me whether in this late text Frege perhaps is aware of the equivocal use of "Eigenschaft". Grossmann [1], IV, does not seem to consider the possibility of an "ambiguity" in the term "Eigenschaft". Cf. also Chapter 2, note 65.
121. Cf. 10.11.
122. Cf. note 41.
123. Cf. Chapter 2, in particular Section 2.24.
124. Cf. Section 2.62.
125. Cf. Section 4.2.