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## PAUL OF VENICE ON THE DEFINITION OF ACCIDENTS

Paolo Nicoletti (Udine 1369-Padua 1429), better known as Paul of Venice, is certainly one of the most prominent philosophers of the late Middle Ages<sup>1</sup>. Paul was a friar of the Augustinian Order. In the late XIII century the Augustianians had Giles of Rome (†1316) in their ranks and after his death they turned him into their official theologian. Consequently, the official theology of the order was the version of Thomism endorsed by Giles. Paul of Venice was also an Aristotelian under many respects. He maintained, like Thomas Aguinas and Giles, that the universals have extra-mental existence, even though they do not exist ante rem. As an Augustian, however, he pledged allegiance to the theology and philosophy of Augustine. This allegiance emerges from many of Paul's writings. Paul's thought is the eclectic, but certainly systematic synthesis of many theses that have either Augustinian or Aristotelian origin. Historians of philosophy have long debated about the fundamental character of Paul's philosophy, but it seems safe to state that, despite the presence of 'Augustinian' elements in Paul's works, Paul was a thorough Aristotelian – possibly one of the most prominent among those active in the late XIV and early XV century. Paul's name is associated with his mammoth Logica Magna, but he also wrote commentaries on Aristotle's Categories, Posterior Analytics, Physics, Metaphysics, De generatione et corruptione, and De anima, and on Porphyry's Isagoge. His autonomous treatises, where he expounded his Aristotelian philosophy, include a Summa Philosophiae Naturalis and a Quaestio de universalibus.

His Aristotelianism, as noted by A.D. Conti, is therefore «eclectic»<sup>2</sup>, i.e. it has elements borrowed from Augustine, Avicenna and the Augustinian tradition, especially in epistemology and in psychology. In particular, Paul subscribed to the thesis that

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¹ On Paul of Venice's life and works see F. Momigliano, *Paolo Veneto e le correnti del pensiero religioso e filosofico nel suo tempo. Contributo alla storia della filosofia del secolo XV*, Fratelli Bocca, Torino 1907; A.D. Conti, *Esistenza e verità*. *Forme e strutture del reale in Paolo Veneto e nel pensiero filosofico del tardo medioevo*, Istituto storico italiano per il Medio Evo, Roma 1996, 1-31; Id., *Paolo Veneto*, in *Dizionario Biografico degli Italiani*, vol. 81, 2014. There are many studies on single aspects of Paul's thought. Conti, *Esistenza e verità*, is the best introduction to Paul's logic, metaphysics, and philosophy of language. A.R. Perreiah, *Paul of Venice: A Bibliographical Guide*, Philosophy Documentation Center / Bowling Green State University, Bowling Green 1986, is a useful bibliographical guide to Paul of Venice's thought.

<sup>&</sup>lt;sup>2</sup> Cf. Conti, Esistenza e verità, 1996, p. 6.

in the Word there were «models» («exemplars») for the creation of the world. Some medieval philosophers maintained that universals are only ideas ante rem, thereby denying any *in re* status to universals. However, Paul's metaphysics is certainly realistic and his claim that God created according to exemplars does not entail any antirealist claim on his part. Paul often criticized nominalist doctrines and is generally faithful to some broadly Aristotelian tenets<sup>3</sup>. The originality of his thought relies in the peculiar version of Aristotelianism that emerges from his writings. Marwan Rashed has introduced the notion of «possible Aristotelianisms» to account for the plurality of consistent interpretations of Aristotle's corpus<sup>4</sup>. In fact, Aristotle's writings often present (apparent) contradictions and inconsistencies, which solution may lead the interpreter to several possible consistent syntheses. In his thought-provoking monograph, Rashed intended to show that Alexander of Aphrodisias' version of Aristotelianism, far from being the mere systematic presentation of Aristotle's thought, was original inasmuch as there are many different consistent Aristotelianisms and Alexander's synthesis is not the only possible one. I believe that Rashed's idea may help us appreciating Paul's originality too. So far scholars have been concentrating on Paul's stance within the late medieval thought. As Conti has convincingly shown, Paul opposes to Ockhamistic nominalism a moderate realism and posits that the abstract essences of the various kinds grouped into the ten categories are really distinct – they are objectively distinct, even though they coincide in the concrete macro-object that we experience<sup>5</sup>. This conclusion about the general character of Paul's philosophy may also be reached if one closely reads Paul's remarks on Aristotle. I maintain that Paul's commentaries do not present unoriginal collections of subtle distinctions in which Averroes is often criticized and Aquinas is often defended – Paul is rather addressing new philosophical questions with remarkable acumen.

Within Aristotle's system, accidents and their definitions raise several puzzles. I shall describe two puzzles that emerge from Aristotle's text and will subsequently expound Paul's solutions to these puzzles. It is worth noting that contemporary Aristotle scholarship does not address these two puzzles. Contemporary scholars do not assume that Aristotle's philosophy is a system, because they do not exclude that different writings

<sup>&</sup>lt;sup>3</sup> Paul's philosophy was frequently misunderstood. Conti, Esistenza e verità, 1996, pp. 2-3, nn. 9-10 lists many scholars who presented Paul either as a nominalist or as an Averroist: E. Garin, C. Vasoli, F. Ruello, A. Poppi. As is clear from Conti's excellent presentation, Paul was rather an Aristotelian whose thought was partly influenced by Augustinian and Avicennian themes. This fact emerges even more clearly today since his commentary on Metaphysics VII has been made available by the recent edition G. Galluzzo, The Medieval Reception of Book Zeta of Aristotle's Metaphysics - Pauli Veneti Expositio in duodecim libros metaphisice Aristotelis, liber VII, ed. G. Galluzzo, Brill, Leiden - Boston 2013. On this edition see L. Gill, The Medievals on Aristotle's Doctrine of Substance, «Recherches de Théologie et de Philosophie Médiévales», 80 (2013), pp. 481-500. One of the earliest critics of the portrayal of Paul of Venice as a follower of the via nominalium is F. Bottin, Paolo Veneto e il problema degli universali, in L. Olivieri (a cura di), Aristotelismo veneto e scienza moderna. Atti del 25esimo Anno Accademico del Centro per la storia della tradizione aristotelica nel Veneto, Antenore, Padua 1983, vol. 1, pp. 459-468, that contains useful observations on Paul's understanding of the ontological status of the universals. Carl Prantl had already warned against a hasty classification of Paul among the nominalists, cf. C. Prantl., Geschichte der Logik im Abendlande, Bd. IV, Hirzl, Leipzig 1927, p. 119.

<sup>&</sup>lt;sup>4</sup> See M. Rashed, *Essentialisme*. *Alexandre d'Aphrodise entre logique*, physique et cosmologie, de Gruyter, Berlin - New York 2007, pp. 6 ff.

<sup>&</sup>lt;sup>5</sup> Cf. Conti, *Esistenza e verità*, 1996, pp. 20-31.

may present different views about the same topic. In contrast, medieval and Renaissance commentators maintained that Aristotle's writings were systematic. Accordingly, these commentators intended to solve all apparent contradictions that may emerge from Aristotle's *corpus*, in order to show the systematic character of Aristotle's endeavor:

- 1. The first puzzle tackled by Paul concerns the unity of perceptible macro-objects. Aristotle conceives perceptible macro-objects as compounds of atomic objects and their properties. Some of these properties are perceptible. Whereas the atomic objects, or substances, underlie change, their properties are not stable and may be either acquired or lost by the underlying atomic object. A given macro-object *O* will thus have different temporal parts, each of which is composed of the same atomic object *A<sub>o</sub>* and of different sets of properties Γ¹, Γ², Γ³, etc. According to Aristotle, the definition of *A<sub>o</sub>* is *prior to* the definitions of each property included Γ¹, Γ², Γ³ etc. (cf. *Met*. Z 1, 1028 a 32-33). This statement seems to imply that both *A<sub>o</sub>* and each of the properties included Γ¹, Γ², Γ³, etc. have different definitions. Every definition is in turn *identical* to the "this something" of which it is a definition (cf. *Met*. Z 4)<sup>6</sup>. Therefore, it seems that we should posit that every macro-object is in fact composed of *n* (*n*>1) atomic objects, i.e. of an underlying substance and of its properties. This conclusion, however, seems to be at odds with Aristotle's attempt in accounting for the unity of macro-objects.
- The second puzzle concerns with what the essence of accidents included. In his Categories, Aristotle stated that primary substances are neither in a subject nor said of a subject. Individual accidents are thus defined as determinations that are both in a subject and said of a subject. One might be tempted to say that being is primarily divided into two genera: the genus of substances - that are «not in a subject» - and the genus of accidents - that are «in a subject». These genera are said of the individual items (primary substances, individual accidents) falling under them. This basic four-category ontology is certainly Aristotelian in spirit and serves as the basis for many (neo-) Aristotelian ontologies, such as Lowe's<sup>7</sup>. However, Aristotle never divided «being» into two (or four) basic categories – whatever the number of categories, we are told that quantity, quality, relation, etc. have different definitions and we are never told that they share a common genus. Even though Aristotle seems to be inconsistent about the number of the categories, he never states that type-accidents and type-substances are the two higher genera of being. E silentio Aristotelis, one might be tempted to infer that there are more than two higher genera of being and that there is no accident-genus. If this is the case, should we conclude that «being in a subject» is not a part of the definitions of accidents? For a definition includes a genus and a differentia. But «being in a subject» cannot be a differentia. If it were, it would have been a differentia of being. Being, however, is not a genus and has no difference. Consequently, a definition can include «being in a subject» only if «being in a subject» is a genus. It has been demonstrated, however, that «being in a subject» is not a genus. Therefore, «being in a subject» cannot be

<sup>&</sup>lt;sup>6</sup> Cf. L. Angioni, *Definition and essence in Metaphysics VII*, 4, «Ancient Philosophy», 34 (2014), pp. 75-100.

 $<sup>^7</sup>$  Cf. E.J. Lowe, The Four-Category Ontology. A Metaphysical Foundation for Natural Science, Oxford University Press, Oxford 2006.

included in the definition of accidents. But if it is not part of the definitions of accidents, how can we account for the definitional priority of substance over accidents? For the definitional priority of X over Y seems to imply that both X and Y have a definition and the definition of Y includes a reference to X. Aristotle maintains that substances are definitionally prior to accidents. Therefore, one might be tempted to conclude that both accidents and substances may be defined and the definition of accidents includes a reference to substances. However, if the definition of accidents does not include the expression «being in a subject», it is difficult to explain how substances can be said to be definitionally prior to accidents. On the other hand, if the expression «being in a subject» were to be included in the definition of accidents, how could we avoid turning that expression into the formula designating a genus common to all accidents?

In order to appreciate Paul's answers to these puzzles, it might be useful to recall some basic features of his understanding of concepts, because accidents are undoubtedly both natural kinds and individual properties of macro-objects; since they are natural kinds, the ontological status of accidents is called into question in the post-Ockhamist developments of late medieval philosophy. Paul's assessment of the ontological status of universal concepts is clearly summarized in four *conclusions* of his *Summa philosophiae naturalis*:

- 1. Universalia habent esse in rerum natura praeter operationem intellectus [...]
- 2. Universalia habent esse actuale extra animam praeter operationem intellectus [...]
- 3. Universalia denudata a suis singularibus non sunt actu universalia, sed potentia solum [...]
- 4. Universalia sunt in suis singularibus et identificantur illis<sup>8</sup>.

By stating that universal concepts are *in* the concrete particular macro-objects and are identical to them, Paul reacts against Burley's extreme realism, according to which universals are *really* distinct from their concrete subjects of inherence<sup>9</sup>. Accidental kinds are universal concepts – *qua* such, they possess all the four properties that belong to universals. The accidental kinds are labelled «abstract accidents» by Paul, who refers to individual accidents as «concrete accidents». According to Paul, abstract accidents are distinct from their subjects – i.e. they are *definitionally distinct* from secondary substances. Concrete accidents, on the other hand, coincide with their subjects and may be said to be only *formally* distinct from their subjects, i.e. from primary

<sup>&</sup>lt;sup>8</sup> Pauli Veneti Summa philosophiae naturalis, per Bonetum de Locatellis, Venice 1503 (Reprinted by G. Olms, Hildesheim 1974), f. 94<sup>va</sup>: «1. Universals exist in extra-mental reality. [...] 2. Universals exist in act in extra-mental reality. [...] 3. Universals considered without their <corresponding> particulars are not universal in actuality, but only potentially. [...] 4. Universals are in their <corresponding> particulars and are identical with them».

<sup>&</sup>lt;sup>9</sup> On Burley's philosophy see A.D. Conti (ed.), *A Companion to Walter Burley*, Brill, Leiden - Boston 2013, and Id., *Walter Burley*, in E.N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy*, http://plato.stanford.edu/entries/burley (accessed: 20 June 2016). Burley maintains that universals cannot exist without particulars that instantiate them, but added that they are really non-identical to their particulars. See E. Karger, *Walter Burley's Realism*, «Vivarium», 37 (2005), pp. 24–40, on the issue of Burley's realism. I thank the anonymous referee for discussion on this point.

substances<sup>10</sup>. This claim seems to boil down to the conclusion that there is only one class of concrete things, i.e. primary substances, which are accidental, i.e. changeable aspects may be taken to be only conceptually distinct from the definition of the core. If this is so, it is hard to look at the statement that substance is *prior in definition* to accidents as anything more than a *façon de parler*. Nevertheless, Paul is firm in maintaining that all universals exist *concretive* only in their particulars. Hence, kind-accidents, though mind-independent, exist only potentially, inasmuch as their actual existence is limited to the concrete instances of the kinds.

Paul expounds some of the premises of this argument in a page of his *Summa philosophiae naturalis*:

His visis sit haec prima conclusio: accidentia tam propria quam communia [et]<sup>11</sup> concretive sumpta a suis subiectis non sunt realiter distincta. Patet, nam animal et coloratum sunt idem realiter, et homo et risibile sunt idem, necnon simum et nasus, quia de se invicem affirmative verificantur – ut patet intuenti. Secunda conclusio: accidentia tam propria quam communia concretive sumpta a suis subiectis conceptibiliter et formaliter sunt distincta<sup>12</sup>.

In the above passage, Paul is employing two types of distinction: real and formal distinction. He states that accidents are distinct from their subjects «conceptibiliter et formaliter», i.e. they are distinct in virtue of a formal distinction (formaliter) and in virtue of a distinction of reason (conceptibiliter)<sup>13</sup>. A real distinction is stronger that a formal distinction; the latter is in turn stronger than a distinction of reason. Consequently, whatever is distinct in ipsa rerum natura or in virtue of a formal distinction, is distinct in virtue of a distinction of reason as well. It is worth clarifying what these distinctions amount to, in order to appreciate the consistency of his solution. The real distinction is a distinction between different things (res); Giles of Rome employed this distinction to distinguish essence and esse, but many later philosophers, including Paul, maintained the real distinction was not adequate distinguish essence and  $esse^{14}$ . The formal and the conceptual distinctions subsist between two different linguistic or conceptual accounts. Even though these distinctions do not entail that the two referents of the accounts are really distinct, they state nevertheless something more than a mere distinction of reason. A distinction of reason is in turn drawn by our intellect in the attempt at classifying things. A distinction of reason needs no grounding in the extra-mental reality. The distinction in account is grounded in extra-mental reality, but cannot be said to be coincidental with a distinction in definition, because this latter would entail a real distinction.

<sup>&</sup>lt;sup>10</sup> On the «formal distinction» in medieval philosophy see S.D. Dumont, *Duns Scotus' Parisian Question on the Formal Distinction*, «Vivarium», 43 (2005), pp. 7-62.

<sup>11</sup> The anonymous referee suggests deleting the «et» at this juncture and I agree with his/her advice.

<sup>&</sup>lt;sup>12</sup> PAULI VENETI Summa philosophiae naturalis, f. 110<sup>ra</sup>.

<sup>&</sup>lt;sup>13</sup> Real distinctions and formal distinctions, inasmuch as they are conceivable by an intellect whatsoever, are conceptual distinctions too. Conceptual distinctions or distinctions of reason may nevertheless be not grounded upon mind-independent distinctions and, *qua* such, do not entail the presence of real or formal distinctions as their grounds.

<sup>&</sup>lt;sup>14</sup> Cf. Pauli Veneti *Summa philosophiae naturalis*, f. 93<sup>ra</sup>: «His visis sit haec prima conclusio: nullius rei essentia habet esse tamquam formam ab illa realiter distinctum».

This doctrine easily generates the first of the above mentioned puzzles about accidents. Type-accidents are posterior *in definition* to type-substances. Hence, both type-accidents and type-substances have definitions that are clearly distinct. Accordingly, type-accidents and type-substances are distinct-in-definition, i.e. they are *really* distinct. This means that type-accidents and type-substances are different things (*res*), i.e. they have different beings (*esse*). It has been said, however, that the *esse* of universal concepts, including the *esse* of both type-accidents and type-substances, is mere *potential* being. Type-accidents and type-substances have an actual mode of being, that makes them particular. But *qua* particulars, token-accidents and token-substances are no longer *really* distinct. In contrast, their reciprocal distinction is weaker than a real distinction, but stronger than a mere distinction of reason, because the created intellect that conceives real token-accidents and token-substances as distinct can do so on the basis of the *real* distinction between the corresponding type-accidents and type-substances.

Commenting on Aristotle's remarks on the priority of substance over accidents (Met. Z 1, 1028 10-32)<sup>15</sup>, Paul establishes four conclusions: (1) the quiddity that signifies substance is, among all beings, primary being; (2) substance is more being than accidents; (3) substance is the cause of accidents with regard to their existence; (4) substance is the cause of accidents with regard too. While arguing for the fourth conclusion, Paul follows Aristotle in maintaining that substance is prior to accidents in time, in definition, and in cognition. Priority in definition is expounded as follows:

Secundo arguit Philosophus quod substantia est prior accidente diffinitione. Nam omne illud est prius alio diffinitione quod accipitur in diffinitione illius et non econtra; ergo et cetera. Tenet consequentia cum maiori. Minor autem declaratur. Nam differentia ponitur in diffinitione speciei ex eo quia constituit speciem; sed substantia constituit ipsum accidens; ergo ponitur in diffinitione illius. Quod quidem inductive potest ostendi. Nam homo ponitur in diffinitione risibilis et nasus in diffinitione simi et caput in diffinitione crispi et generaliter omnia accidentia propria, sive sint convertibilia sive non, diffiniuntur per subiecta sua, sive in concreto accipiantur sive in abstracto. Accidentia autem communia nemo dubitat semper diffiniri per subiectum, ut album est res habens albedinem et coloratum est res habens colorem, ubi per 'rem' continue intelligitur subiectum. In abstracto etiam non bene diffiniuntur nisi accipiatur subiectum: cum enim dicit Philosophus, in libro De sensu, quod color est extremitas perspicui in corpore terminato, per 'perspicuum' intelligitur substantia subiecta colori. Sic etiam et alia accidentia communia diffiniuntur, ut caliditas est qualitas rarefactiva substantie, humiditas est qualitas prima refluens super se ipsam in aere et in aqua, siccitas vero est qualitas prima terminata in igne et in terra, et sic de aliis suo modo dicatur<sup>16</sup>.

This passage is crucial inasmuch as Paul maintains that the definition of substances is prior to the definition of accidents, because there is no accident that can be defined without any reference to substance. Individual accidents are not defined, as has been said above. All accidents that can be defined are type-accidents, but these accidents can be either «accidentia propria» or «accidentia communia» and can be defined either taken

<sup>&</sup>lt;sup>15</sup> The priority of substances over accidents is commonly discussed by Aristotelian philosophers. Among Paul's most important sources, Aquinas' doctrine of the priority of substance is highly influential. On Aquinas' account of the priority of substances over accidents see L. Gill, *The Order between Substance and Accidents in Aquinas's Thought*, «Studia Neoaristotelica», 8 (2011), pp. 16-37.

<sup>&</sup>lt;sup>16</sup> Pauli Veneti *In Met. VII*, tr. 1, ed. Galluzzo, p. 49, 3-23.

«in concreto» or «in abstracto». Proper accidents (accidentia propria) are accidents that are the property of a single class of subjects, e.g. «able to laugh» is a property only of the substances falling under the kind «human beings». Common accidents (accidentia communia) belong to many classes of individuals, e.g. «white» is said of many classes of substances. Both proper and common accidents may be considered either «in abstracto» or «in concreto». Accidents considered in concreto are neither token-accidents, nor type-accidents considered in themselves; rather, in concreto accidents are type-accidents considered as inhering in a subject. We may think of in concreto accidents as type-accidents+the relation of inherence of these accidents to their corresponding subjects. These in concreto accidents are designated by adjectives in natural languages like Latin or English (e.g. «white», «albus», «concave», «simus», etc.). Accidents considered in abstracto are accidents considered in themselves, i.e. by making abstraction from their possible inherence in a subject. These accidents are designated by nouns in natural languages like Latin or English (e.g. «whiteness», «albedo», «concavity», «simitas», etc.).

These distinctions give rise to four categories of accidents, all of which have definitional accounts that include a reference to their corresponding substances.

It is easy to see why accidents considered in concreto are defined by referring to their corresponding substance. In fact, the syntactic structure of natural languages like Latin or English also suggests that an adjective is always linked to a noun. Accordingly, «white» will be defined as «something that shares whiteness» and, in general, every accident in concreto X will be defined as «the thing that shares Y», where Y is the accident in abstracto corresponding to X. The case of accidents taken in abstracto may present some difficulties and Paul observes that these latter accidents «cannot be properly defined without any reference to their subjects» («in abstracto etiam non bene diffiniuntur nisi accipiatur subiectum»), almost as implying that it is possible to give a definitional account of them without mentioning their corresponding subjects, but such account would be imperfect. In his discussion, Paul only considers common accidents taken in abstracto; these are indeed the most difficult cases, because it is harder to see why their definitional account should include any reference to their corresponding subjects. For it is straightforward to grasp why proper accidents («accidentia propria»), even if taken in abstracto, cannot but include a reference to their proper subjects. The (abstract) «ability to laugh» is certainly a capacity of humans to express their amusement, as long as the corresponding accident in concreto «able to laugh» is defined as «human capable of expressing amusement». Even though Paul is silent on this issue, it might be argued that for every proper in concreto accident X, there is a corresponding proper accident in abstracto Y, such that, if X is defined as «subject S with the property X<sup>S</sup>», the definition of Y will be «the property X<sup>S</sup> of subjects of the kind S». In contrast, the case of common accidents in abstracto is more difficult, but Paul maintains that their most adequate definitions must include a reference to their corresponding subjects too. Paul's strategy seems to be the following. Let X be a common in abstracto accident belonging to the accidental category C<sup>X</sup> that modifies the subclass of substance  $S^{x17}$ : the definition of X will be «a  $C^X$  that modifies

<sup>&</sup>lt;sup>17</sup> This subclass, I suspect, may be improper too. There might be common accidents that are said of substances quite generally. Paul's text, however, is not explicit on this point.

in a way proper to X the set of substances  $S^x$ ». All of the examples provided by Paul follows this definitional structure. Therefore, it is reasonable to suggest that this may be the general definitional scheme of all common accidents considered *in abstracto*.

Type-accidents may thus be defined and their definition includes a reference to their subject of inherence. Paul is able to draw this conclusion because he *does not* consider token-accidents that cannot be distinguished from their subjects but by a distinction of reason. Paul's argument may be restated as follows.

- 1. X is posterior in definition to Y, if the definition of Y does not include X and the definition of X includes Y, or if X belongs to a kind  $K^x$  and Y belongs to a kind  $K^y$ , such that the definition of  $K^x$  includes  $K^y$ , but the definition of  $K^y$  does not include  $K^x$ .
- 2. There are two sets of accidents: type-accidents and token-accidents.
- 3. Type-accidents have definitions that include a reference to their subjects. Proof: by induction over the four kinds of type-accidents.
- 4. Token-accidents belong to type-accidents as token-substances belong to type-substances. Since type-accidents are posterior in definition to type-substances (for 3), token-accidents are posterior in definition to token-substances too.

### Therefore,

5. Accidents are said to be posterior in definition to their substances. (From 1, 3 and 4, by induction over the sets of accidents listed in 2).

The solution to the first puzzle leads us to the second above mentioned puzzle about accidents. If the definitions of all accidents include references to the accidents' corresponding substances, should we infer that there is a common genus for all accidents, the definition of which would consist in a generic relation of inherence to a substance in general?

Paul's analysis of this puzzle is subtle and consists of distinguishing inherence from the «relation to a subject». According to Paul, neither actual nor habitual inherence are part of the definition of any accident. On the contrary, every definition of an accident includes a reference to the accident's subject.

Ex predictis sequitur quod inherentia non est de ratione accidentis secundum specialem intentionem accepti. Nam punctus, linea et superficies sunt accidentia, de quorum rationibus non est quod inhereant, quia tunc antiqui non potuissent concipere punctum, lineam et superficiem quin concepissent inherentiam ad subiectum – quod est falsum<sup>18</sup>.

Paul is distinguishing the metaphysical consideration of an object from other possible considerations of the same object. He claims that, when a metaphysician considers an accident, she conceives it as inhering in a subject. However, other scientists, like mathematicians, may consider accidents without defining them as inhering in something.

According to Paul, there are two kinds of inherence: aptitudinal inherence and actual inherence. Aptitudinal inherence consists of the fact that the essence of (type-) accidents includes a reference to the essence of (type-) substances. Aptitudinal inherence maps onto the priority in definition of type-substances over type-accidents.

<sup>&</sup>lt;sup>18</sup> PAULI VENETI *In Met. VII*, tr. 1, ed. Galluzzo, p. 66, 15-19.

Consequently, aptitudinal inherence grounds the actual inherence, i.e. the union of a subject and its accidental property in the perceptible individual macro-object:

Inherentia actualis est unio faciens accidens in concreto secundum actualem existentiam, cuiusmodi est unio albedinis cum re alba et simitatis cum naso; inherentia aptitudinalis est dependentia essentialis quiditatis accidentis ad quiditatem substantie. Et differt hec ab alia, quia de accidente non demonstratur inherentia actualis sed aptitudinalis: demonstratio enim abstrahit ab existentia et non ab aptitudine, cum non demonstretur hominem ridere, sed esse risibilem. Quantitas enim sacramenti altaris est accidens, non tamen actu inheret alicui, sed tantum potentia et aptitudine<sup>19</sup>.

Paul is stating that scientific proofs (demonstrationes) deal with the aptitudinal inherence of accidents, not with their actual inherence. This follows from the fact that scientific proofs are syllogisms that yield universal conclusions, i.e. propositions that include universal terms. If these propositions have accidents as one of their terms, these accidents will be type-accidents. Consequently, they will have a mere aptitudinal inherence to their subjects.

All type-accidents have aptitudinal inherence only for the metaphysician, because the mathematician will consider them as definitionally independent from their (metaphysical) subject of inherence. Paul does not say explicitly that this fact entails that type-accidents cannot be grouped in one common genus defined by aptitudinal inherence. Nevertheless, I maintain that it is for this reason that we have ten categories instead of two macro-categories, i.e. instead of the hypothetical highest categories of type-substances and type-accidents.

In fact, Paul rejects an argument by Alexander of Alessandria<sup>20</sup>, who maintained that an accident cannot be conceived without the notion of aptitudinal inherence. Alexander's argument runs as follows:

Si aptitudo non est de conceptu accidentis, ergo conceptus accidentis potest intelligi preter aptitudinem. Quando ergo sic concipitur sine aptitudine, aut concipitur ut ens aptum natum esse in se, aut in alio. Si primo, ergo concipitur ut substantia – quod est impossibile. Si secundum, ergo concipitur cum aptitudine, et prius tollebatur ab eo aptitudo; ergo concipitur cum aptitudine et sine aptitudine – quod est impossibile<sup>21</sup>.

Paul's reply to this argument rests on the fact that certain accidents may be defined without any reference to their corresponding subjects, if the accidents are considered from a mathematical viewpoint and are defined accordingly:

Ad tertium conceditur quod conceptus accidentis potest concipi sine aptitudine, et in hoc casu non concipitur ut est ens in se nec in alio, non obstante quod omne ens sit ens in se vel in alio. Concipit enim geometra quantitatem continuam et arismeticus quantitatem discretam absolute,

<sup>&</sup>lt;sup>19</sup> *Ibi*, p. 66, 30-67, 5.

<sup>&</sup>lt;sup>20</sup> Alexander Bonini from Alessandria (Piedmont) was a Franciscan lector at the *studium* of Bologna between 1303 and 1307. He wrote a commentary on Aristotle's *Metaphysics* that Paul used for his own commentary. Later on, Alexander became master in theology in Paris and general minister of the Franciscan Order. On his life and works see L. Veuthey, *Alexandre d'Alexandrie, maitre de l'Université de Paris et ministre général des Frères mineurs. Pour l'histoire de la philosophie scholastique*, Librairie Saint-François d'Assise, Paris 1932. Alexander produced four arguments; I concentrate on the most compelling one.

<sup>&</sup>lt;sup>21</sup> PAULI VENETI *In Met. VII*, tr. 1, ed. Galluzzo, p. 67, 25-31.

absque aptitudine, nec eam concipit ut est ens in se nec ut est ens in alio, sicut non concipit eam sub modo substantie neque sub modo accidentis, quia talis consideratio non ad mathematicum pertinet, sed ad metaphisicum<sup>22</sup>.

This text clearly states that aptitudinal inherence is included in the metaphysical definition of type-accidents. However, certain type-accidents, *qua* type-accidents, are suitable of being analyzed from a mathematical viewpoint too. Consequently, the definitions of these type-accidents, *qua* definitions of type-accidents, do not include the aptitudinal reference to a subject. For the scientist who defines type-accidents, *qua* such, has to make abstraction from both the possible metaphysical and the possible mathematical analysis of these accidents.

### Conclusion

The analysis of Paul's answers to two puzzles concerning accidents allows us to better grasp Paul's Aristotelianism. This research confirms the previous findings of A.D. Conti, who expounded Paul's eclectic Aristotelianism against the background of late medieval philosophy. I believe to have shown that Paul's arguments have philosophical depth and deserve a careful analysis on their own. Paul's systematic presentation of Aristotle's philosophy is confronted with several puzzles. By stating that aptitudinal inherence is not included in the definitions of type-accidents, Paul can state that type-accidents do not share in any common notion. As a matter of fact, aptitudinal inherence seems to be univocally predicated of all type-accidents, if these latter are considered as types of token-accidents that concretely inhere in their corresponding substances. But if there is a notion X that is univocally predicated of a set of items a, b, c, X will be the genus of a, b, c, according to Aristotle's definition of genus (see Aris-TOTLE, Topics, A 5, 102 a 31-35). Yet, commentators agree in maintaining that there is no genus of «accidents». Thomas Aquinas, for example, does not posit any «genus» of accidents while he is commenting on Aristotle's «deduction» of the ten categories in Metaphysics V,7<sup>23</sup>. Aquinas' remarks are compatible with the idea that there are some genera that are higher and more basic than the ten categories. According to Aquinas, «being» cannot be predicated as a genus, because no differentia can exist outside of «being» itself. Therefore, if «being» were to be a genus, it could not be predicated of anything more specific, because there is no specific differentia that can generate species out of such hypothetical genus. Being will thus be divided into the ten categories according to the «modi praedicandi». Aquinas, however, individuates three fundamental «modi praedicandi»<sup>24</sup>. Are these genera? Aquinas is not explicit on the issue,

<sup>&</sup>lt;sup>22</sup> *Ibi*, p. 72, 10-17.

<sup>&</sup>lt;sup>23</sup> See Thomae Aquinatis *In XII libros Metaphysicorum Aristotelis Expositio*, lib. V, lect. IX, ed. R. Spiazzi, nn. 889-893, pp. 238-239, Marietti, Torino - Roma 1964.

<sup>&</sup>lt;sup>24</sup> See *ibi*, pp. 238-239, nn. 890-892: «Portet, quod ens contrahatur ad diversa genera secundum diversum modum praedicandi, qui consequitur diversum modum essendi; quia *quoties ens dicitur*, idest quot modis aliquid praedicatur, *toties esse significatur*, idest tot modis significatur aliquid esse. Et propter hoc ea in quae dividitur ens primo, dicuntur esse praedicamenta, quia distinguuntur <u>secundum diversum modum praedicandi</u>. Quia igitur eorum quae praedicantur, quaedam significant quid, idest substantiam, quaedam quale, quaedam quantum, et sic de aliis; oportet quod unicuique modo praedicandi, esse significet idem; ut cum dicitur homo est animal, esse significat substantiam. Cum autem dicitur, homo est albus,

but the issue needed a clear solution. Nevertheless, Paul can point to a reason why this does not entail that aptitudinal inherence must be included in the definition of type-accidents, qua type-accidents. Type-accidents, qua such, also include quantities that do not inhere in any primary substance, but are mere mathematical objects. Hence, aptitudinal inherence cannot be included in the definition of type-accidents, qua type-accidents. Paul's solution showcases the resources of a systematizing reading of Aristotle and of the Aristotelian tradition. By referring to appropriate distinction, it is possible to argue that accidents are not included in any single genus. Neither Aristotle nor his major commentators Averroes and Aquinas ever explicitly defended the claim that there is a genus of accidents, thereby suggesting e silentio that such genus does not exist. However, Paul's systematic reading opens up the possibility of the existence of such a genus of accidents, precisely because aptitudinal inherence is univocally predicated of all type-accidents considered as types of token-accidents that inhere in their corresponding substances. This conclusion is the solution to a first problem that arises from Aristotle's text, i.e. the issue of accounting for the definitional priority of substances over accidents. Substances are definitionally prior to accidents, Paul maintains, because the definitions of accidents include reference to substance. The reference of an accidents to its corresponding substance is an «aptitudinal inherence». Is there a genus of things that share in having aptitudinal inherence? Aristotle is silent on the issue. Paul is able to solve the aporia by distinguishing between the definition of type-accidents, qua such, and type-accidents that are considered as inhering in a substance. The latter accidents share in having aptitudinal inherence and they can in principle be grouped in one single genus. But the definition of type-accidents, qua type-accidents, does not include aptitudinal inherence. Hence, type-accidents are not a genus. Therefore, the term «accident» is analogously predicated of all accidents, like «being» is analogously predicated of all beings<sup>25</sup>.

#### Abstract

Paul's systematic presentation of Aristotle's philosophy is confronted with several puzzles. Substances are definitionally prior to accidents, Paul maintains, because the definitions of accidents include reference to substance. The reference of an accidents to its corresponding

significat qualitatem, et sic de aliis. Sciendum enim est quod praedicatum ad subiectum tripliciter se potest habere. Uno modo cum est id quod est subiectum, ut cum dico, Socrates est animal. Nam Socrates est id quod est animal. Et hoc praedicatum dicitur significare substantiam primam, quae est substantia particularis, de qua omnia praedicatum. Secundo modo ut praedicatum sumatur secundum quod inest subiecto: quod quidem praedicatum, vel inest ei per se et absolute, ut consequens materiam, et sic est quantitas: vel ut consequens formam, et sic est qualitas: vel inest ei non absolute, sed in respectu ad aliud, et sic est ad aliquid. Tertio modo ut praedicatum sumatur ab eo quod est extra subiectum: et hoc dupliciter. Uno modo ut sit omnino extra subiectum: quod quidem si non sit mensura subiecti, praedicatur per modum habitus, ut cum dicitur, Socrates est calceatus vel vestitus. Si autem sit mensura eius, cum mensura extrinseca sit vel tempus vel locus, sumitur praedicamentum vel ex parte temporis, et sic erit quando: vel ex loco, et sic erit ubi, non considerato ordine partium in loco, quo considerato erit situs. Alio modo ut id a quo sumitur praedicamentum, secundum aliquid sit in subiecto, de quo praedicatur. Et si quidem secundum principium, sic praedicatur ut agere. Nam actionis principium in subiecto est. Si vero secundum terminum, sic praedicabitur ut in pati. Nam passio in subiectum patiens terminatur».

<sup>&</sup>lt;sup>25</sup> I thank Barbara Bartocci for inviting me to contribute this paper. I thank the anonymous referee for his/her comments on a previous draft of this article. Mistakes and shortcomings are only mine.

substance is an «aptitudinal inherence». By stating that aptitudinal inherence is not included in the definitions of type-accidents, Paul can state that type-accidents do not share in any common notion. Type-accidents, qua such, also include quantities that do not inhere in any primary substance, but are mere mathematical objects. Hence, aptitudinal inherence cannot be included in the definition of type-accidents, qua type-accidents. Paul's solution showcases the resources of a systematizing reading of Aristotle and of the Aristotelian tradition.

Keywords: Aristotle, Paul of Venice, metaphysics, definition, substance/accidents