

The ontology of ‘the Economic’: An Aristotelian analysis

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Tony Lawson’s and Uskali Mäki’s respective realist projects rely on an ontology of the economy. This paper will not focus on these research projects but will instead try to shed light on them by introducing an ontology of the economy according to Aristotle. *Oikonomiké*, the seminal term used by him, is not a noun but an adjective. For Aristotle, nouns express entities or beings, both self-sufficient beings and accidental properties. Adjectives almost always express accidents. What kind of being is ‘the economic’? This analysis will suggest some conclusions about the constraints of economic science and the need for Institutions according to the peculiar ontological condition of ‘the economic’ as conceived by Aristotle.

Key words: Realism, Ontology of economy, Aristotle

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The aim of this paper is to introduce a reconstruction of an ontology of the economy according to the views of the first systematic thinker about both concepts, the Greek philosopher Aristotle. Realist projects relying on an ontology or metaphysics of the subject-matter of Economics have been suggested in recent years. This paper will not focus on these positions but will instead introduce the thoughts of Aristotle on the topic, as a possible way of shedding light onto the discussion. In the first section some Aristotelian metaphysical concepts needed for the analysis will be introduced. A brief exposition of Aristotle’s notion of *oikonomiké* will follow. Next, the paper will undertake the ontological analysis of *oikonomiké* and its ontological connections. Some conclusions will finally be arrived at.

This is a metaphysical study following the path indicated by Michael Loux:

“what the metaphysician is supposed to do is to identify the relevant kinds, to specify the characteristics or categorical features peculiar to each, and to indicate the ways those very general kinds are related to each other” (Loux, 2002, p. xi).

Or, in Lawson’s words: “a central objective [of ontology] is to provide a categorial grammar for expressing all the particular types of realisation (...)” (2003, p. xvi).

The ontological or metaphysical categories I am going to apply to the economy in this paper are Aristotelian. The paper will rely mainly on Aristotle’s texts, and it will also go beyond them, always following an Aristotelian perspective.

1. Some Aristotelian metaphysical and logical concepts

Aristotle’s “first philosophy” or “theology” (later called “metaphysics”) is “a science which investigates being as being and the attributes which belong to this in virtue of its own nature” (*Metaphysics*, IV, 1003b 31).¹

In his book of *Categories*, Aristotle explains that there are four classes of entities (*onta*) generated by the combination of two relations. The first relation, “being in”, holds between accidents and substances, and has often been called “inherence”. The second relation, “being said of”, holds between universals and particulars. Thus, the four classes have been traditionally known as: 1) universal substances (e.g., man), 2) individual substances (e.g., this man), 3) universal accidents (e.g., yellow) and 4) particular or individual accidents (e.g., this yellow).² We can put these classes in a diagram called the “ontological square”. In Angelelli (1967) the square appears as follows:

	Not being in a subject (substance)	Being in a subject (accident)
Said of a subject (universal)	Man	Yellow
Not said of a subject (part.)	This man	This yellow

Let us analyse the relation between substance and accident first.

To understand these concepts the introduction of Aristotle’s concept of “homonymy *pròs hén*” is needed. Homonymous *pròs hén* concepts have, however, different related meanings, one of which is the “focal” or primary meaning to which the other, derivative, meanings refer and are connected.³ An example posed by Aristotle is ‘healthy’: the focal meaning of healthy relates to a healthy human body; derivative meanings refer to healthy foods, sports, medicines, and so on (cf. *Metaphysics*, IV, 2, 1003a 32 and ff.).

Homonymy *pròs hén* also applies to being. Being means a concrete thing, a substance, what a thing is (an essence), and an accident such as quality or quantity. All these realities are beings to a major or minor degree. Beings or entities present themselves, according to Aristotle, in about 10 categories or predicates. Aristotle explained and developed this in the book of *Categories*.⁴ There are as many predicates as manners of existence. The category “substance” is the focal meaning or “starting point” (1003b 6) of beings. Substances are, by definition, ontologically primary items: their existence can be affirmed without invoking the existence of anything else.⁵ Substance is individual (a *tode ti* – a this –) and separable. We have criteria of identity of each substance that make it identifiable (cf. *Metaphysics* V, 8, 1017b 23-5). The other entities fall under the rubric of accidents (*symbebekós*, *accidens* – latin -, what happens to).

Aristotle, identified two classifications of accidents. Firstly, that explained above related to universal and individual accidents and, secondly, to casual accidents and necessary accidents:

“We call an accident that which attaches to something and can be truly asserted, but neither of necessity nor usually, e.g., if one in digging for a hole for a plant found treasure (...) ‘Accident’ has also another meaning, i.e., what attaches to each thing in virtue of itself but is not in its substance, as having its angles equal to two right angles attaches to the triangle. And accidents of this sort may be eternal, but no accident of the other sort is.”(*Metaphysics* V, 30, 1025a 30-4).⁶

The first class is what is casual or fortuitous, not necessary. The second class is what necessarily pertains to the substance or accident in which it inheres: for man (substance) to be social (accident), for material bodies (substances) to have an extension (accident), for an economic good (substance or accident) to have a price (accident).

Accident is what happens to a substance either immediately (an economic good is bought) or in a mediated way (through another accident/s: an economic good suffers depreciation). Accidents *are* in substances (a price of an economic good) or in other accidents (expectations about prices of assets). According to Aristotle, accidents are quantity, quality, relation, location, time, position, possession, doing (or action), undergoing (or passion).⁷

The term “accident” may be misleading because in ordinary language it may denote something of a lower category. However, reality is full of accidents without which it would be inconceivable. Let us think, for example, in mind and will, thoughts, powers or capacities, society, goodness and beauty, extension, all that happens, and so on. Furthermore, accidents may ‘create’ substances, as an idea gives origin to an artefact, or as certain expectations may lead to an increase in production. The reason why I wanted to clarify this point is that Economics, like most human sciences, deals with accidental matters such as prices, interest rates, exchange rates, the act of buying or selling, expectations, conventions, and so on. Hence, a short reference to some particular accidents will be relevant to the aim of this paper.

‘Quantity’ does not need explanation. ‘Relations’ are particular bridges between substances. Aristotle mentions greater, double, larger and similar, like, less, more, as relations. Relations involve not only quantity but also quality. Fatherhood is a relation. Interest rates are relations. Exchange rates are also relations: Economics is full of relations. ‘Quality’ comprises habit (*héxis*), virtues (*aretai*) and knowledge (*epistêmai*). Also capacities (*dýnameis*), passive qualities and affections, forms and figures are qualities. Finally ‘action’ and ‘passion’ are also accidents. To buy or sell, value and prices, habits and expectations, are all accidents.

Having finished the explanation of the substance-accident relation, let us turn to the universal-particular or individual one. For Aristotle, the only existent beings are individuals. Universals, for him, are logical, abstract concepts. However, there is a bridge between individuals and universals. This bridge appears when we combine both relations.

As I said, for Aristotle the only existent beings are singulars (a “this”): individual substances and individual accidents that happen or are in substances. However, individuals have an *eidos* or essence (a “what they are”) that also exists and which belongs to all the individuals of the same *species*. The universal is the logical expression of the *eidos* or essence: it neither subtracts nor adds anything to the essence, it is identical to the essence. The content of the universal is its very essence. Besides, the universal has a logical existence as universal as the thought that contains it; and this thought has an ontological existence *qua* thought: (*Metaphysics*, VII, 4, 1030a 25-7). In this way Aristotle leaves room for the other two combinations to exist as entities: universal

substances and universal accidents. Both are expressions of essences. The essence of universal substances (e.g., man) is in the individual substance (this man); the essence of universal accidents (whiteness) is in the individual accident (this white), but not in the individual substance in which they inhere, and thanks to that the accident may exist ontologically. The ‘what is’ – essence – , whose logical expression is the universal, is necessary because something cannot be one thing and another simultaneously.

Science is about the universal of the individuals (or singulars). Thus, an accident, as far as it has an essence instanced in individuals, may legitimately be the subject-matter of science. The accidental character of the subject-matter does not rule out science. To the extent that being is taken in many senses, essence and definition may be taken not only from the substance but also from the other categories.⁸ Individual substance ontologically supports the individual accident whose essence is the subject of the science about something accidental, “not essence simply (*haplôs*: absolutely), but the essence of a quality or of a quantity” (*Metaphysics*, VII, 4, 1030a 30-1). This does not mean that we need to know the essence of the substance to develop scientific knowledge about the accident. However, science about accidents would not be possible if accidents were not ontologically supported by substances, for otherwise, accidents would not have essence nor even exist and thus it would obviously not be possible to know them.

However, it is not any kind of accident which science may have as subject-matter, only accidents of the second class, “eternal,” necessary accidents. Science cannot be about whiteness of tables because to be white is not necessary to *a* table and may be completely casual: whiteness is not something belonging *per se* to *a* table, although it may be necessary to *this* table. Science may be about the sociability of man because, always according to Aristotle, man is naturally social. It may also be about the physical conditions or properties of whiteness as a colour.⁹ To give an economic example, price is characteristic of an economic good: thus, we can have scientific economic knowledge about price.

To summarise, we have distinguished the different categories of entities and stressed the possibility of developing scientific knowledge about some of them. As we shall see, ‘the economic’ is, for Aristotle, an action, capacity, habit and knowledge. These beings are accidents, predominantly of the kind that Aristotle calls quality. Having

presented these metaphysical concepts, let us now describe what ‘the economic’ is for Aristotle.

2. Some notions about Aristotle’s *oikonomiké*

Aristotle formulated seminal concepts on ‘the economic’, *oikonomiké*, and on its science, Economics. Evidently, the economy of his time did not have the characteristics of the current one, and Economics as such had not yet been founded; he only devoted a few pages to these issues. However, in those pages he left some ideas that may help clarify basic notions of the philosophy of ‘the economic’ and Economics.

First of all, I want to clarify the scope of economy for Aristotle. Most historians of economic thought correctly translate *oikonomiké* as household management and thus consider that his contribution to economic analysis was unimportant. However, Aristotle held that *oikonomiké* (‘the economic’) refers not only to the house but also to the *polis* (cf. *Politics* I, 8, 1256b 12-4; I, 10, 1258a 19-21; I, 11, 1259a 33-6).

Oikonomiké is the Greek adjective usually used by him to refer to all that is related to the use of wealth in order to achieve the Good Life. The adjective *oikonomiké* – economic or ‘the economic’ – calls for a noun: the economic what? The answer is multiple: ‘economic’ applies to several things and not univocally. As it will be shown, we are facing a homonymous *pròs hén* term. This conclusion clearly arises when comparing the primary meaning of *oikonomiké* with the other meanings; these different meanings correspond to different entities to which the adjective applies.

2.1. A human action:¹⁰

It is likely that the primary meaning of ‘the economic’ for Aristotle will be found precisely in its definition. We shall confirm this hypothesis when we compare it with other entities he also calls economic. Aristotle sets the definition of *oikonomiké* by relating it to *chrematistiké*. *Oikonomiké* is the use (*chresasthai*) of wealth, while *chrematistiké* is the provision, production or acquisition of wealth. “To use” is a human action. Thus, economic is for Aristotle a human action: the action of using wealth. However, the object of use of *oikonomiké* does not suggest unlimited wealth, but the

wealth necessary to live at all (*zên*) and to live well (*eû zên*) (cf. *Politics* I, 4, 1253b 24-5).

Furthermore, Aristotle also considers chrematistics as human action: a technique that ought to be subordinated to *oikonomiké*, dealing, as we have said, with the acquisition of things used by *oikonomiké*. However, he distinguishes between two kinds of chrematistics: one actually subordinated to *oikonomiké*, limited and natural, and another unnatural, that is in fact not subordinated to *oikonomiké* and looks unlimitedly for money. Concerning the former he says: “It follows that one form of acquisition is naturally a part of the art of household management. It is a form of acquisition which the manager of a household must either find ready to hand, or himself provide and arrange, because it ensures a supply of objects, necessary for life and useful to the association of the *polis* or the household” (*Politics* I, 8, 1256b 27-30). And concerning the latter he adds: “this second form [leads] to the opinion that there is no limit to wealth and property” (*Politics* I, 9, 1257a 1). He calls it “justly censured” (*Politics* I, 10, 1258b 1).

Thus, for Aristotle, *oikonomiké* is the action of using the things that are necessary for life (*live at all*) and for the Good Life (*live well*). When Aristotle speaks about life at all he is referring to what is achieved at home (*oikos*). When he talks about the Good Life he is referring to what is attainable in the civil community (*polis*), and to its goal (*telos*). According to him, the latter concept of life has a precise moral meaning; it is a life of virtues by which humans achieve happiness.¹¹ Summing up, this first and primary meaning of *oikonomiké* is the action of using the things necessary for life and for the Good Life.

Finally, we need to clarify what kind of action the economic is. In the *Metaphysics* Aristotle distinguishes between two kinds of human actions. Firstly, *immanent* actions, that is, actions whose end is the action itself such as seeing, thinking or living. The results of immanent actions remain in the agent. Secondly, he notes *transitive* actions where the “result is something apart from the exercise, (and thus) the actuality is in the thing that is being made” (*Metaphysics* 1050a 30-1). Transitive actions are actions the results of which transcend the agent and are something different from the agent as, for example, a good produced. Aristotle calls immanent action *prâxis* and transitive action *poíesis* (*Nicomachean Ethics* VI, 4, 1140a 1). All actions are both immanent and

transitive except in the case of a fully immanent action (to think, to love). Let me provide an example: when somebody works there are two results, i.e., the ‘objective’ result, such as the product or service (transitive), and the ‘subjective’ result such as the increase in ability or the self-fulfilment of the agent as well as the morality of the act (immanent). For Aristotle, this latter, immanent aspect is the most relevant one, it is the one sought for its own sake, not for any further reason. Aristotle says, “we call that which is in itself worthy of pursuit more complete than that which is worthy of pursuit for the sake of something else”(Nicomachean Ethics I, 7, 1097a 30-1).

That is, Aristotle attributes more relevance to the inner or immanent aspect of action – that which is in itself worthy of pursuit-, because it is the aspect whose *telos* is the very fulfilment or perfection of the agent. For him the external aspect of action is simply instrumental.

Oikonomiké is an action of using, in Greek, *chresasthai*. What kind of action, immanent or transitive, is *chresasthai*? “To use” is a transitive action insofar as the thing used is consumed or wasted when used. However, the complete action of *oikonomiké* is to use what is necessary to satisfy the agent’s requirements to live well: this is a predominantly immanent consideration of use, for it is using for the sake of personal perfection.¹²

2.2. A capacity

Aristotle says:

“(…) and we see even the most highly esteemed of capacities to fall under this [Politics], for example, strategy, economics (*oikonomikén*), rhetoric” (Nicomachean Ethics, I, 2, 1094b 1-2).

That is, he also considers *oikonomiké* as a capacity, an ability, or power, in this case, to perform economic actions.

Oikonomiké being a capacity may explain why it is often translated as “an art of household management.” Jowett and Barker translate *oikonomiké* in this way. Ross also speaks about the art of economics (Nicomachean Ethics I, 1). However, this translation is not coherent: if *oikonomiké* ‘uses’, whereas *chrematistiké* ‘produces’, it is clear that the

latter is an art or technique, but not the former, since an art indicates the habit of production (cf. *Nicomachean Ethics* VI, 4), and *oikonomiké* does not produce but uses. Vattimo (1961, pp. 64 ff.) has shown that art – *téchne* – has two senses for Aristotle. The most employed is the one explained above. However, Aristotle also uses the term *téchne* as *dynamis* – capacity or general principle of human actions – in the *Physics* and other writings. Thus *oikonomiké* is an art in the sense of capacity.¹³

Oikonomiké as capacity is a derived sense of *oikonomiké*, because the capacity of using exists for the sake of the action of using. Given that capacities are defined by their ends or functions (*De Anima* II, 4, 415a 16-21), these ends are ontologically prior to the very capacities and correspond to the primary meaning in a case of a homonymous *pròs hén* term such as *oikonomiké*. “The excellence of a thing is relative to its proper function,” says Aristotle (*Nicomachean Ethics* VI, 2, 1139a 17).

2.3. A habit

It seems reasonable that if *oikonomiké* is both an action and the capacity to perform it, it also engenders a habit that facilitates the action. For Aristotle, habits rely on natural dispositions and are propelled and reinforced by education and law. The very repetition of the action also consolidates the habit thus constituting a kind of virtuous circle -actions-habit-actions. It also makes sense to find that *oikonomiké* is a habit that facilitates the immanent aspect of action – not a *téchne* – i.e. a habit of production. In effect, Aristotle speaks about household management as a kind of prudence, which in the Aristotelian conception mainly reinforces the immanent ability of the human being (*Nicomachean Ethics* VI, 8; cf. also *Eudemian Ethics* I, 8, 1218b 13). *Oikonomiké* as a kind of habit is another derived sense of *oikonomiké*. The same argument as set out above, namely of *oikonomiké* as capacity being a derived meaning, applies in this case: the primary meaning, to which this derived meaning is oriented, is the proper object of the habit, that is, the corresponding action. *Oikonomiké* as a kind of habit helps the performance of *oikonomiké* as the action of using necessary things for living well. Meanwhile action, capacity, and habit are different properties for Aristotle. Thus, we are facing a homonymous *pròs hén* term.

It is also clear that *chrematistiké* is a technique which is a habit of production for Aristotle (cf. *Politics* I, 9 and 10, *passim*; e.g., 1257b 7). The action of *chrematistiké* is clearly transitive.

2.4. A science

A last sense of *oikonomiké* gets closer to the today's meaning of the term economics: *oikonomiké* as science (cf. *Nicomachean Ethics* I, 1 and 2). For Aristotle, *oikonomiké* is a practical science. What is the meaning of this kind of science? Aristotle distinguishes between theoretical, practical and *poietical* (or technical) sciences. The distinction corresponds to their different subjects (*Metaphysics* VI, 1, 1025b 20-1 and cf. 1025b 19ff. and XI, 7, 1063b 36 – 1064a):

1. Theoretical science deals with those things that can only be contemplated. Theoretical sciences according to Aristotle are Metaphysics, Physics and Mathematics. Theoretical science is the strictest notion of science for Aristotle.

2. Practical science deals with those subjects that originated in human decision or choice. They have a practical aim (*Metaphysics* II, 1, 993b 21-2; cf. also *Nicomachean Ethics* I, 2, 1095a 6 and II, 2, 1103b 27-8).

3. Technical science deals with artefacts and the rules for their production.

Politics is the Aristotelian practical science *par excellence*. Ethics and *oikonomiké* are also practical sciences for Aristotle.¹⁴ Practical science is science by similarity: *homoiótesin* (cf. *Nicomachean Ethics* VI, 3, 1139b 20). This is a middle ground between strict science (theoretical), and prudence and action. Consequently, this homonymous meaning of science is not the clearest and most central. However, practical science owns the characteristic common to all kind of sciences, i.e., to be a “state of capacity to demonstrate (*héxis apodeiktiké*),” (*Nicomachean Ethics* VI, 3, 1139b 32) with the limitations inherent to its subject-matter, human choice and human action (contingent, variable, free, singular).

Aristotle recognizes this ‘weaker’ character. He asserts in the *Nicomachean Ethics* that

“Our treatment discussion will be adequate if it has as much clearness as the subject-matter admits of; for precision is not to be sought for alike in all discussions, any more than in all the products of the crafts. Now fine and just actions, which political science investigates, exhibit much *variety and fluctuation* (...). We must be content, then, in speaking of such subjects and with such premises to indicate the truth *roughly and in outline*.” (*Nicomachean Ethics* I, 3, 1094b 11-27, emphasis added).

Aristotle identifies two reasons for this ‘inexactness’ of practical sciences: “variety and fluctuation” of actions. That is, there are lots of possible different situations and the human being may change his decisions. This is why for Aristotle human action is always singular. He says:

“We must, however, not only make this *general statement*, but also apply it to the individual facts. For among statements about conduct those which are general apply more widely, but those *which are particular are more true*, since conduct has to do with *individual cases*, and our statements must harmonize with the facts in these cases.” (*Nicomachean Ethics*, II, 7, 1107a 31-3, emphasis added).

And also,

“(…) actions are in the class of *particulars*, and the particular acts here are voluntary. What sort of things are to be chosen, and in return for what, it is not easy to state; for there are many differences in the *particular cases*.” (*Nicomachean Ethics*, III, 1, 1110b 6-8, emphasis added).

In the practical syllogism the secondary premise always refers to a particular situation. Hence, in practical sciences conclusions (actions) cannot be achieved without passing through the singular.¹⁵ Properties of actions are variable. An action may be just or unjust according to the situation; and the concrete determination or content of a just situation is also variable (cf., e.g. *Nicomachean Ethics*, V 10, 1137b 28-30 on equity: “... about some things it is impossible to lay down a law, ... For when the thing is indefinite the rule is also indefinite”). Aristotle also affirms this with regard to wealth, beauty, and courage, among others. This is why he says, for example, that “a young man is not a proper hearer of lectures on political science; for he is inexperienced in the actions that occur in life, but its discussions start from these and are about these” (*Nicomachean Ethics* I, 3, 1095a

2-4. He often compares Politics with medicine in this respect, as in the next quotation). In sum,

“matters concerned with conduct and questions about what is good for us have no fixity, any more than matters of health. The general account being of this nature, the account of particular cases is yet more lacking in exactness; for they do not fall under any art or precept, but the agents themselves must in each case consider what is appropriate to the occasion, as happens also in the art of medicine or of navigation.” (*Nicomachean Ethics* II, 2, 1104a 4-9).

Let us remember that practical science, as conceived by Aristotle, ends in action. However, the more “practical” practical sciences are, the less general they become. By leaving generality behind to move towards concrete reality, science limits its scope. That is something that ought to be kept in mind; we should look for a balanced position: if we try to include all relevant factors in a concrete situation we lose generality and, thus, explanatory power for different situations in the conclusions we reach. But as we try to gain generality, we lose contact with reality as it actually is, and thus explanatory, predictive and normative ‘efficiency’. Moreover, could we speak about prediction in the above described conditions? What is the solution to this choice between accuracy and generality?

This problem occurs not only in practical science, but also in physics. What are the essentials of its subject-matter? If physics reduced its scope to that which is strictly necessary it would not have much to do. It also has to deal with that which is probable. But in this case the results are not often universals (which express essences), but generalisations, which express general, though not necessarily necessary, properties: consequently, generalisations may fail. However, though not completely certain, prediction is sufficiently accurate, thus allowing for science.¹⁶ Aristotle exceptionally deals with science in the way detailed in the *Posterior Analytics*. This is the book where Aristotle characterises science. It is one of the books in the set of Logical books Aristotle called *Organon* (i.e. “instrument” of thinking). J. M. Le Blond, in his classic *Logique et Méthode chez Aristote*, maintains that “the books composing the *Organon*, are more concerned with *exposing* science in a rigorous way than with *doing* science. His scientific books, on the other hand, focus on research and they are the ones that reveal the method”

(1939, p. 191). That is, the *Organon* contains a theory of science, while the scientific books are actual science that do not always follow the precepts of the theory. In fact, in his studies – especially biological (*On the Part of Animals*, *The History of Animals*), physical (*Meteorology*), and practical (Ethics and Politics) -, Aristotle gives plenty of room for experience and he does this in order to discover and also verify scientific principles. He says in *Generation of Animals* (concerning his observations about the generation of bees) that “credit must be given rather to observation than to theories, and to theories only if what they affirm agrees with the observed facts” (III 10, 760b 31; cfr. also *De Anima*, I, I, 639b 3 ff. and 640a 14 ff.). That is, some principles in some sciences are based on empirical data leading to generalisations, not to universals. Universals are grasped by a sort of intellectual intuition – called abstraction— which presupposes experience but is not based on a complete enumeration of cases. Moreover, in some cases, one or a few cases suffice to abstract the universal. Generalisations, however, are based on enumeration of empirical or experimental cases. Le Blond shows how Aristotle uses experience in detailed observation as well as in experiment: “flux and reflux of the research going from facts to theories and from theories to facts” (1939, p. 242). This clearly explains why Aristotle states in *Nicomachean Ethics* (VI, 8) that “a boy may become a mathematician but not a philosopher or a natural scientist.” The reason, he adds, is that the philosopher and the natural scientist need experience. As he states in *On Generation and Corruption*,

“[I]ack of experience diminishes our power of taking a comprehensive view of admitted fact. Hence those who dwell in intimate association with nature and its phenomena are more able to lay down principles such as to admit of a wide and coherent development” (I 2 316a 5-8).

Generalisations from the point of view of Aristotle’s “rigorous” science are not scientific, for science deals with universals. However, the contingency of the subject matter justifies the use of generalisations instead of universals in science. If this is applicable to Physics there are more reasons for applying it to human action as subject matter, for freedom adds an extra quota of contingency. This is the case of practical science. Generalisations in practical science are actual dispositions or habits.¹⁷ This is why close contact with facts is necessary in practical science. The more stable the habits

and tendencies the more predictable the outcomes. In any case, general tendencies may change: they are not firmly established universals. Aristotle develops a theory about the stability of habits (*Nicomachean Ethics*, VII, 9, 1151b 25-7 and VII, 10, 1152 a, 26-7). When habits are sufficiently stable as to constitute social institutions, practical science is firmly based. Therefore, institutions are very important for they consolidate tendencies and habits and facilitate accurate science. Thus, according to this meaning of the economic, we can predict better when social institutions are solidly constituted; and, even so, nothing is definitive. I will return to this point in the conclusion.

This last meaning of *oikonomiké* as practical science is also homonymous *pròs hén* in respect to ‘economic’ human action. Although being a practical science, science for Aristotle is quite different from action and from practical wisdom (prudence): “practical wisdom (*phrónesis*) cannot be science (*epistéme*)” (*Nicomachean Ethics* VI, 5, 1140b 2). Thus we are facing a property – *oikonomiké*: ‘the economic’ – that applies to different though related realities such as economic action, economic capacity, economic habit and economic science. They have something in common i.e. its orientation towards the use of things necessary to living well but they differ in other aspects: properly a homonymous *pròs hén* term.

3. The ontology of ‘the economic’ according to Aristotle

I have characterized *oikonomiké* and pointed out that grammatically it is an adjective. Nouns may express both substances and accidents, for example, when people say ‘the earth’ and ‘the beauty’. But adjectives nearly always denote accidents.¹⁸ Anyway, in this case it is clear enough that the adjective *oikonomiké* is not expressing something ontologically separable (i.e. substance): its existence can only be explained or sustained by invoking something else in which it inheres.

I presented four kinds of entities that may be “economic” for Aristotle: an action, a capacity, a habit, and a science. All these entities are also accidents, pertaining to the kind of ‘action’ and ‘quality’. They inhere or ‘happen’ to human beings. The primary meaning of *oikonomiké* is the action of using. However, in order to use, people need to know what to use and how to use it, and also need to have the capacity of using; by using, people

develop the corresponding habits. Let us analyse specifically what kinds of categories – ways of beings – these meanings of the economic are:

i. *Action* belongs to the category of action: *Categories* IX. Human action – *praxis* -- is the most perfect ‘sub-lunar’ way of being of actuality or *energeia* (cf. *Metaphysics* IX, 6).¹⁹ Humans try to achieve perfection through action. This is one reason why *oikonomiké* is a typically human entity. Previous activities needed to act – i.e., deliberation and choice – are qualities of the mind and the will. The use of wealth is a kind of human action. As I said before, it has both an immanent and a transitive character. Human actions are voluntary and intentional. They do not just only happen to humans, as if they were something alien to them: they presuppose previous activities in the same person. Some of these activities are intellectual – knowledge, belief –, and other volitional – will, choice, decision. Aristotle considers deliberation of mind (*bouleúesthai*) and choice of will (*proairesis*) as acts which precede action. Science, capacity, and habit facilitate these previous steps.

As explained, economic action is for Aristotle the action of using the things necessary to live and to live well (in a moral sense). It is subjective, because each person judges what is necessary for himself. The Greek term used in this case by Aristotle to mean necessity is *chreia* (cf. *Nicomachean Ethics*, V, 5). There is another Greek term for necessity, *anagke*, also used by Aristotle in other contexts. *Anagke* is strict necessity (as, for example, it is necessary that an effect has one or more causes). But *chreia* is relative necessity: in order to survive, it is necessary to eat, but one may eat one thing or another, at any time, and so on. Referring to *oikonomiké*, *chreia* means that the way of using the things required is not determined *a priori*, but it is up to each one’s will. This characteristic of ‘the economic’ reinforces its accidental character. That is, firstly, ‘the economic’ does not have a concrete determined content (i.e., it is contingent) and, secondly, it inheres in an accidental subject, i.e., human action.

ii. *Capacity* (*dýnamis*), to have a power (“a source of movement or change”): *Metaphysics* V, 12, 1019a 15) is a quality. Capacities, for Aristotle, are natural (*physikes*) (*Categories* VIII 9a 14ff.). A capacity is an ability, potentiality, power or talent possessed, in this case, by a human person. Human nature is equipped with some capacities that require development. Capacities may be dormant or active. Other

capacities are not innate but acquired. *Oikonomiké* is one of these, probably innate but with broad possibilities for development. Some people have economic capacity whereas others do not. This characteristic of capacities reinforces their accidental character.

iii. *Habit (héxis)* is also a quality, a “having” (*Metaphysics*, V, 20). Habits are more lasting and stable qualities than dispositions. Virtue (*areté*) is a quality also belonging to the sub-type of habit (*Categories* VIII 8b 34-5). Virtues are built on a natural disposition through repetition of actions. A habit is “an acquired behaviour pattern regularly followed until it has become almost involuntary” or “a dominant or regular disposition or tendency.”

Habits are fundamental to human life. We cannot leave everything open to decision the whole time without becoming psychologically ill; we need them in order to structure behaviour in daily life. Personality is shaped by acquiring habits through the repetition of acts. Habits constitute a person’s “second nature”. Habits are determined by actions but actions are free. Thus they may be different from person to person. Hence, habits are accidents and they are also contingent. As I shall show in the conclusion, habits facilitate not only economic actions but also economic coordination.

iv. Knowledge and science are qualities (*Categories* VIII, 8b 29-33), specifically a kind of habit. As explained, *oikonomiké* is a practical science; and this kind of science is not an exact science: the truth of the practical is not fixed.

Other characteristics of practical science are the following:

Firstly, practical science must be closely linked to the concrete case. “Now no doubt,” Aristotle says, “it is proper to start from the known. But ‘the known’ has two meanings - ‘what is known to us,’ which is one thing, and ‘what is knowable in itself,’ which is another. Perhaps, then, for us at all events, it is proper to start from what is known to us” (*Nicomachean Ethics*: I, 4, 1095b 2-4). That is, we must start from the manifest surface facts to discover the causes.

Secondly, another distinctive feature of practical sciences is their pragmatic end. Aristotle states that “the end of this kind of study [Politics] is not knowledge but action.” (*NE* I, 3, 1095a 6) and that “we are not conducting this inquiry in order to know what virtue is, but in order to become good.” (*NE* II, 2 1103b 27-28) He adds in his *Metaphysics* that “the end of theoretical knowledge is truth, while that of practical

knowledge is action.” (II, 1, 993b 21-22) Nowadays, social sciences are theoretical studies of practical subjects. Then one can ask: what is their epistemological condition? Aquinas completes Aristotle on this point: he distinguishes three principles to decide whether a science is theoretical or practical. These are the subject-matter, the end and the method. This threefold classification leaves room for “mixed” cases, as those theoretical studies of practical subjects just mentioned above. Aquinas asserts in *De Veritate*:

“Knowledge is said to be practical by its order to act. This can happen in two ways. Sometimes *in actu*, i. e., when it is actually ordered to perform something (...) Other times, when knowledge can be ordered to act but it is not now ordered to act (...); in this way knowledge is virtually practical, but not *in actu*” (q. 3, a. 3).

This is an important point because current social sciences, although they may try to be only theoretical, are virtually ordered towards action. Thus, although a particular science may be theoretical *secundum finem*, or may have both theoretical and practical aspects, its implicit orientation towards action determines its epistemological framework.

The third characteristic of practical sciences is normativeness. Inexactness, closeness to reality and pragmatic aim are features of the practical sciences stemming from the singularity of human action, as conceived by Aristotle. Besides, the normative character of practical sciences has to do with their pragmatic aim. The statement that “it is rational to act in a concrete way” is both a “positive” and normative statement.

Finally, a reference should be made to the methodological devices characteristic of practical sciences. The abundant bibliography on this topic could be summarized as a proposal of methodological plurality. In his *Politics* and *Nicomachean Ethics*, Aristotle admirably combines axiomatic deduction, inductive inference, dialectic arguments, rhetoric, imagination, examples, and topics.

These characteristics of practical sciences indicate that their conclusions are not rigid, on the contrary, they are always variable.

As anticipated these four meanings of *oikonomiké* correspond to accidents of the human being. I shall now explain the consequences for Economics of these meanings.

4. Conclusion

In a few passages of philosophical analysis of the economic condition of humans Aristotle provides the tools for determining the ontological nature of ‘the economic’. I have concluded that this is a homonymous term, whose focal meaning is economic action, the use of what is needed for achieving life and the Good Life. The other meanings of ‘the economic’ are a capacity, a habit and a science. In all its four meanings we are speaking of accidents, entities which have an ontological existence inhering in others – which are substances.

What are the consequences of ‘the economic’ being an accident and such a kind of accident?

1. If ‘the economic’ were a casual or fortuitous accident we should be immersed in a completely unmanageable realm. Instead, the economic, as defined by Aristotle, is a necessary condition of humans: they all need to use things to live and they are all called on to live well. For Aristotle, man is not only *zoôn politikòn* (e.g. *Politics*, I, 2, 1253a 3-4) but also *zoôn oikonomikòn* (*Eudemian Ethics*, VII, 10, 1242a 22-3). To be economic is necessary for man. Therefore, this is an appropriate subject-matter for science. However, the specific way of satisfying the necessities of the individuals is left to their choice, taste, etc.; i.e., it is not *a priori* determined.

2. As explained, accidents happen in substances. Thus, they do not happen in isolation. That is why the economic aspect of an action is blended with other aspects – cultural, historical, geographical, singular – pertaining to the acting substance (i.e. the person, and the environment). Within the human realm all these aspects mutually influence each other in a dynamic process: one aspect cannot be completely isolated from others. Besides, human action is essentially singular. In spite of the necessity of ‘the economic’ for human beings, we are in a strongly contingent realm.

3. The former conclusions determine that, from an Aristotelian point of view, science about ‘the economic’ is a practical science. The subject matter of practical sciences, and within them, of Economics, entails a kind of “living science”, where the principles are few and most of the conclusions of science vary on a case by case basis.

Generalisations in these sciences, as explained before, are possible thanks to the tendencies of some kind of actions to be repeated. As Alasdair MacIntyre explains, predictability in the social sciences is only imperfectly possible. This happens thanks to

knowledge of statistical regularities and of the way people carry out their need to schedule and coordinate their social actions, and also thanks to the awareness of the causal regularities of both nature and social life.²⁰

4. Given the previous conclusions, there are several reasons why institutions matter greatly in the economic realm. Institutions both embody and reinforce steady habits. That is, there are two directions of analysis: on the one hand, how habits shapes institutions, and on the other, how institutions encourage habits. Concerning the first direction, habits, specially good habits, make actions more predictable and thus facilitate the constitution of institutions. According to Aristotle, the incontinent man is unpredictable; on the other hand the virtuous man who is continent, is more predictable because he perseveres:

“A morally weak person,” he says, “does not abide by the dictates of reason” (*Nicomachean Ethics*, VII, 9, 1151b 25-7). “A morally strong person remains more steadfast and a morally weak person less steadfast than the capacity of most men permits” (*Nicomachean Ethics*, VII, 10, 1152 a, 26-7).

In this way, virtues facilitate the predictability of acts and help constitute institutions, which are embodiments of regular behaviour patterns towards a defined end.

In the other way, institutions foster habits, for they reinforce the realisation of determined acts through rewards and punishments. According to Aristotle, the main means to foster these actions are education and law. Firstly, education, in the broad Greek sense of *paideia*, is the shaping of personal character. This is why “it makes no small difference, then, whether we form habits of one kind or of another from our very youth” (*Nicomachean Ethics*, II, 1, 1103b 24). Secondly, law bears a pedagogical objective (cf. *Nicomachean Ethics*, X, 9, 1179b 31 – 1180a 4). Aristotle understands that a set of concrete virtues leads humans to their natural excellence. This process begins with the education of those virtues, conveniently consolidated by laws.

There are two reasons why this presence of institutions is relevant. Firstly, they are relevant for the very possibility of economic science. As explained, practical sciences (and Economics within them) may make generalisations and predictions thanks to the repetition of acts. Institutions help in the consolidation of habits.

Secondly, predictability and institutions facilitate economic coordination. Coordination is possible when acts are foreseeable.²¹ Thus we can conclude, in an

Aristotelian minded spirit, that economic coordination is more easily achievable and economic science can more accurately postulate generalisations within a highly institutionalised environment.

5. The embeddedness of Aristotle's *oikonomiké* in morality and politics has not been the central concern of this paper; our conclusions, however confirm this. The ontological character of *praxis* (the kind of human action the economic is), the character of prudence, which is an intellectual and moral virtue (the kind of habit the economic is) and the normative character of practical science (the kind of science economic is) also advocate it. The consideration of the Good Life as the aim of 'the economic' is another argument, since Good Life is only achievable within the *polis*. However, I leave an analysis of the relations between the economic and the moral and political realms according to Aristotle for a future paper.

Footnotes:

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1. I am using Jonathan Barnes's edition of *The Complete Works of Aristotle. The Revised Oxford Translation*, Princeton University Press, 6th printing with corrections, 1995, for this and subsequent quotations of Aristotle. I leave aside this translation in the case of *Politics* where I use Ernest Barker's traditional translation of *The Politics of Aristotle*, Oxford University Press, 1958. I also used Ross' translation of the *Nicomachean Ethics*.

2. *Categories* 2, 1a 20 – 1b 10.

3. The expression “focal meaning” was felicitously coined by Owen (1957).
4. Aristotle is cautious concerning the number and definition of categories. The indeterminate condition of being and the richness of reality advises us to leave this number open: cf. Aubenque (1974, pp. 179-83). For Aristotle’s enumeration of the categories cf., e.g., *Categories* 4, 1b25 - 2a 4, *Topics*, I, 9, 103b 20-5.
5. That is, they are basic entities, not properties, from an Aristotelian point of view. For a general introduction to Aristotle’s philosophy and metaphysics, see for example the classic book by Sir David Ross (1968; first edition, 1923). For a specialized current exposition of the Aristotelian view about substance, cf. Wiggins (2001) and Loux (2002, p. 123-37).
6. Scholastics called the latter *proprios* to mean that they were ‘eternal’ accidents, necessarily tied to the considered substance.
7. Here I follow Aristotle’s enumeration of accidents in *Categories* 4, 1b 25 – 2a 4.
8. Cf. *Metaphysics* VII, 4, 1030a 27ff. and 5 and 6 *passim*. In *Metaphysics* XIII, 3 he offers the examples of Mathematics, Geometry and Medicine. Cf. also *Topics*, I, 9, 104b 33-8.
9. This is clearly distinguished, for example, in the *Posterior Analytics* I, 6.
10. The term ‘action’ denotes ‘intentionality’ (a direction towards a *telos* determined by will). For Aristotle’s definition and characterization of action, cf., e.g., *Nicomachean Ethics* III, 1-5 and VI, 2, 4 and 5.
11. These virtues can be performed in the *polis*. Men are political animals; to be political means that they share a common sense about what is expedient, inexpedient, just, unjust, good and evil (*Politics* I, 2). Sharing and trying to behave in a virtuous way is the *telos* of men in society and the way to conquer happiness. Thus, for Aristotle “the end (*telos*) is the same for one man and for a civil community.” (*Nicomachean Ethics* I, 2, 1094b, 7-8. I changed the term “state” in Barnes’ edition - Ross’ translation – for ‘civil community’, because ‘state’ is both inexact and anachronistic).
12. *To chresasthai* is the ‘substantivation’ of the Greek verb *chráo* in its ‘middle voice’ infinitive aorist form. The middle voice has a reflexive use that is coherent with this possible predominant sense of *práxis* of *chresasthai*. The French and Spanish translations show this characteristic: “se server” (fr.)/ “procurarse de,” “servirse de.” (sp.)

Chresoméne, another form used by Aristotle to signify the action of *oikonomiké* is another form of *chráo*, a future middle participle that indicates finality.

13. The Greek suffix 'ik' means capacity.

14. For *oikonomiké* as practical science, cf. Newman (1951, I, p. 133), Miller (1995, pp. 6-11), Natali (1980, pp. 115 ff.) and Berti (1992, p. 80). Instead, *chrematistiké* is a *poietical* science or technique.

15. About practical syllogism in Aristotle, cf. *De Anima* 434a 16-21, *Nicomachean Ethics* VII, 3, 1146b 35 – 1147a 7 and 1147a 25-31, and *Metaphysics* VII, 4, 1029b 5-7; cf. also MacIntyre (1988, "Aristotle on Practical Rationality", pp. 124-45).

16. J. M. Keynes (1921) perfectly understood this Aristotelian distinction between universals and generalisations: cf. his Note "On the use of the Term *Induction*", 1, p. 274.

17. On these topics, cf. Wolfgang Wieland (1999).

18. There is only one case, considered by Aristotle in *Categories* 3b 10-24 where an adjective may mean a substance, namely, the specific difference that constitutes a kind of substance.

19. This is a major topic that cannot be argued here. Cf. my (1996).

20. Mac Intyre 1984, pp. 102-3.

21. I cannot expand on this here. On the subject of the relation between habits and economic coordination see my paper 2004.

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