On Logic and Legislation.
Some Philosophical Remarks

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Abstract: Starting from the conception of the ancient Greeks, which left deep marks in the Western culture, I tried to comment in this study on the relation between cosmology, logic and legislation. I was mainly interested in the connection between “natural law” and “social law” in general, but mostly in the relation between the former and the principles of “Roman law”. Apart from the philosophical aspects dealt with in this article, I have also presented some elements (connected to “repeated discourse”) which I analyzed from a linguistic point of view as well.

Keywords: legislation; natural law; Roman law; logic; philosophy; repeated discourse

1. A connoisseur of the Old Greeks’ vision of the world, Werner Jaeger, in his famous book, Paideia, proved that they “had an innate sense of the natural” and that – unlike all the peoples which had established legal codes – they had always searched for that unique LAW present in all things and had tried to harmonize their life and thought with it (Jaeger, 1945, pp. xx-xxi). Minute observers of nature, the Old Greeks intuited its order and strove to reproduce its natural rhythms in their own activities. That is why the Greek natural science comes to be governed by a principle according to which the world is imbued in Spirit. Jaeger also explained why the Easterners had a totally different conception from that of the Greeks: “The soul of the Orient, weighed down by religious yearning, sinks into the abyss of emotion, and finds no firm foothold in it; but the Greek spirit, trained to think of the external cosmos as governed by fixed laws, searches for the inner laws that govern the soul, and at last discovers an objective view of the internal cosmos.” (Jaeger, 1945, pp. 152-153).

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1.1. Much later, during the Renaissance, this belief was radically changed, leading to the idea that the natural world was “a machine in the literal and proper sense of the word, an arrangement of bodily parts designed and put together and set going for a definite purpose by an intelligent mind outside itself” (Collingwood, 1960, p. 5). The great “Watchmaker” was no one else than God, the Divine Creator, the Almighty Ruler of Nature. However, to the Old Greeks, the Universe was not a machine, but an organism, and the pervasive spirit (above mentioned) was the intelligence of nature itself. The modern cosmology is also based on an analogy: that between the processes of the natural world (studied by naturalists) and the tumultuous human actions (investigated by historians) (Collingwood, 1960, p. 9).

1.2. Returning to the Ancient Greeks, one should remark that the same reputed German philologist, W. Jaeger, dealing with Anaximander (approx. 610 – approx. 546 BC) and with his doctrine regarding “the systematic justice of the universe”, notices that a fundamental philosophical term, aitia ‘cause’ (together with the idea itself), had already been transferred, in those times, from the terminology of law to the that of physics. Similarly, related words such as cosmos, dike and tisis migrated from the sphere of law to that of nature (Jaeger, 1945, p. 161). On the other hand, one could observe a rather bizarre detail: “the physicists’ cosmos became, by a curious retrogression in thought, the pattern of eunomia in human society, the metaphysical foundation of city-state morality” (Jaeger, 1945, p. 171). Referring to the respective regression, Jaeger probably alludes to the initial “natural” experience of the Old Greeks (see supra), which was the source of the concepts ‘rhythm’, ‘form’ and ‘structure’, which they later applied to their art and science.

2. This reciprocal influence, coming either (1) from the natural macro-cosmos to the human micro-cosmos, or (2) from the human conduct to the organization and functioning of the universe, is “bizarre” only at first sight, if we consider the unity which – in the Old Greeks’ mentality – the Spirit (already mentioned) should have ensured, similar to a “fiber” common to all “things”.

2.1. According to John Dewey, the conception which had long dominated natural sciences was derived from the latter type of influence: “The distinct classes to which things belong by their very nature form a hierarchical order. There are castes in nature. The universe is constituted on an aristocratic, one can truly say a feudal, plan. Species, classes do not mix or overlap – except in cases of accident, and to the result

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1 For further confirmation regarding this terminological transfer (for aitia, dike and cosmos), see also Peters, 1967, pp. 16, 38-40 and 108-110.
of chaos.” (Dewey, 1957, p. 59). The classical theory of the creation of the world corresponds entirely to a hierarchical order of classes in terms of “dignity and power”. In the opinion of the same American philosopher, the analogy between the ancient cosmology and the social organization is a suitable one. It is common knowledge that the feudalism is characterized, among other things, by an order conferred by its military force, by the relation between the armed and the protected etc. However, if one considers the notions of ‘rule’ and ‘order/command’, involved by both sides, he will notice that such a vision is still present nowadays. The term LAW is currently defined as a constant relation in the sphere of changes. Nevertheless, we can still hear (quite frequently) of laws which “govern” events, and thus we get the impression that, if there were no laws to keep them in order, phenomena would manifest in a complete disorder. This way of thinking “is a survival of reading social relationships into nature – not necessarily a feudal relationship, but the relation of ruler and ruled, sovereign and subject. Law is assimilated to a command or order.” (Dewey, 1957, p. 64).

2.2. Modern science has modified this opinion based on the relation between ‘superior’ and ‘inferior’. The wind of change was started by astronomy itself, which demonstrated that the Earth was not in a privileged position and it definitely is not above the Sun, the Moon and stars etc. Developing the same analogy, Dewey believes that there would be no exaggeration in telling that a transfer from the feudal system of the general classes of unequal rank, gradually distributed, to a democracy of individual facts of an equal rank was thus produced (Dewey, 1957, pp. 65-66). Certainly, such a change in “paradigm” also triggered a change in the way in which things are researched. The principles and the scientific laws are not to be found at the surface of nature. They have to be “extracted” from nature through a complex and exquisite method, namely through the technique of inquiry. The old procedures – the purely logical reason and the passive accumulation of observations – are insufficient in this regard. On the contrary, the active experimentation, forcing the natural facts to take shapes different from the usual ones, reaches sooner their truth, “as torture may compel an unwilling witness to reveal what he has been concealing” (Dewey, 1957, p. 32; also cf. Collingwood, 1971, pp. 246-256).
3. We will see that all these transformations due to the modern scientific spirit finally led to the needed reform of the Aristotelian logic, despite its so-called “immutable” character (Pusca, 2006, pp. 8-9). But I will postpone, for the time being, the discussion regarding the respective reform, trying to emphasize the primary connection between logic and legislation or, better, the connection between logic and law system. Since in the first part of my article I presented the relation between cosmology and legislation in general (according to the Old Greek vision), in what follows I aim at underlining the relation between logic and the Roman law. In my research, I will frequently resort to some of the works of John Dewey, a great American philosopher, for his ideas fully deserve our attention.

3.1. As known, the Roman law is still the basis of many legal systems worldwide. Its norms regulated both a person’s juridical condition and the patrimonial personal relations, and the activity of solving litigations between persons (Pusca, 2008, p. 12). The Old Greeks were both philosophers and mathematicians, highly prone to contemplation. However, the Romans, more pragmatic in nature, were excellent lawyers and administrators. Theoretical reflections and investigations conducted for the sake of speculation interested them less. Correct and systematic thinking was of interest to them only if useful in the political life. Thus, in Rome, initially, logic was subordinated to rhetoric, directing the oratorical activity, especially during Cicero’s times, when the latter became extremely important in the case of civic rivalries. Later, logic attained more prestige: “During the empire logic was the instrument for organizing the complex legal body of rules and decisions under fixed general principles, derived, if possible, from the ‘law of nature’. Logic thus became definitely a formal discipline useful in arranging material for purposes of argument, exposition and instruction.” (Dewey, 1933a, p. 6). Nevertheless, one should remember that not only logic, but also the Greek philosophy in itself (either through stoics or through other indirect ways) influenced the Roman law: the very concept of ‘law’ originated in philosophy. Moreover, during the Middle Ages, “the idea of the ‘law of nature’ was central in the ethical and political theories of the scholastic thinkers” and, at the same time, “the organizing principle of all jurisprudence” (Dewey, 1933b, p. 35).

3.2. The devastating (both civil and religious) wars of the 17th century gave an impetus to the search of those norms meant to be applied in a more efficient and safer manner to the empirical phenomena from the social and political sphere. It was believed that the source of the respective norms was to be found in reason itself, which was above any human and worldly hardships. That is why, Hugo Grotius
(1583-1645), the great Dutch jurist, resumed the ‘law of nature’, giving it a new interpretation and turning it into the generative and directive idea of international law, with the view to regulating war and peace conditions. Separating himself from religion and theology, Grotius took more advantage of the benefits of logic: “[He] revamped the law of nature of the mediaeval period to help rationalize international relations, and his successors in various fields of jurisprudence and morals made his method of appeal more and more stringently logical.” (Dewey, 1933a, p. 8; also cf. Dewey, 1933b, p. 35).

4. Let us resume. So far, two rather distinct images of the ‘natural law’ are shaped: (1) a LAW resulting from the passive (and, in a way, “superficial”) observation of nature, a law in accordance with pure reason and, thus, with the (mainly deductive) ancient Aristotelian logic; (2) a LAW resulting from the active experimentation of nature, a law which, in order to be “extracted” from nature, requires a (partially) new (mainly inductive) logic.

4.1. For almost two millennia, the former perspective was dominant. John Dewey, in The Quest for Certainty, an extraordinary book, explains why things were considered that way. The reason would be that, in an unpredictable world, man searches for a secure place, striving to find a shelter. Thus, he has two solutions: (α) either he tries to obtain the benevolence of the elements (through magic practices, rituals, sacrifices etc.), (β) or he invents different crafts and, through them, he manages to control the elements to his own benefit. In Aristotle’s time, the intellectual activity (associated with leisure) was highly praised, while the physical activity (for which slaves were mainly used) was not so much appreciated, since – it was believed that – the “quest for complete certainty can be fulfilled in pure knowing alone” (Dewey, 1960, p. 8), the only one capable to grasp the immutable. On the contrary, “the realm of the practical is the region of change, and change is always contingent; it has in it an element of chance than cannot be eliminated” (Dewey, 1960, p. 19). In this way, it is understandable why the line between theory and practice was clearly drawn in the Old Greek’s vision. It corresponded to the border of the two worlds, to which two different types of knowledge were attributed: “One of them is alone knowledge in the full sense, science. This has a rational, necessary and unchanging form. It is certain. The other, dealing with change, is belief or

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1 In this regard, Hugo Grotius wrote a fundamental work (in three books): De iuri belli ac pacis (1625). Some of his other essential treatises – Mare liberum (1609), De veritate religionis Christianae (1627) etc. – are worth mentioning.
opinion; empirical and particular; it is contingent, a matter of probability, not of certainty.” (Dewey, 1960, p. 20).

4.2. The natural law (jus naturale) taken as a point of departure by Hugo Grotius, even if still a law in its former meaning (LAW₁), constituted rather a law of human nature than one of physics or of the universe, although it surely had appeared – in the Dutch jurist’s opinion – as a manifestation of God’s will¹. Grotius’ hybrid method, which he used in his treatises, is quite interesting: on the one hand, (a priori, analytical) deductive; on the other hand, (a posteriori, synthetical) inductive². The following coincidence is worth mentioning: Hugo Grotius was Francis Bacon (1561-1626) and Descartes’ (1596-1650) contemporary. As known, these illustrious thinkers were the representatives of the two great philosophical schools (different as regards the methods used) which strongly influenced the Western culture of the last centuries. Thus, (α) Fr. Bacon was the exponent of empiricism, which included those who “appealed exclusively to experience in the form of sense perception as the source of valid beliefs” (Dewey, 1933a, p. 8); the British philosophers adhered to this orientation; while (β) Descartes was the exponent of rationalism, which included those who “appealed to reason in the form of mathematical concepts as the ultimate authority” (Dewey, 1933a, p. 8); the philosophers on the Continent adhered to this orientation.

4.3. Modern science emphasized the other type of natural law (LAW₂). Under its impact, especially in the first half of the 20th century, a reform of the traditional logic became necessary. Indeed, this aspect is clearly expressed in the fifth chapter of John Dewey’s treatise, Logic. The Theory of Inquiry (1938). That chapter is entitled precisely The Needed Reform of Logic, and it constitutes a balanced, sympathetic criticism of the classic Aristotelian logic. Thus, on the one hand, the American scholar shows the “intimate and organized” way in which Aristotle’s logic would reflect the science of the period in which it was formulated: from this point of view, this logic – having an ontological substratum – deserves our entire admiration. On the other hand, Dewey tries to prove the fact that the “revolutionary” changes, which previously happened in science, require a radical corresponding mutation in logic, as well. For instance, the Ancient believed in the immutability of species (of

¹ See, for instance, for more details, among other numerous materials available online, Jim Powell’s essay, Natural Law and Peace. A Biography of Hugo Grotius (published on the 4th of July 2000 on www.libertarianism.org).
“essences”), being mainly interested in forms, and less in substances (as matter) – which generally justifies their lack of preoccupation as regards measurement. However, the quantitative criterion can no longer be ignored by modern science, which prefers measurement. Moreover, Charles Darwin’s Origin of Species (1859) – with a revolutionary title, as well – demonstrated exactly the fact that (biological) species are not immutable at all (Dewey, 1938, pp. 81-98).

5. To Kant, logic, as founded and developed by Aristotle, seemed perfect. There was nothing else to be added. To the same German philosopher, equally perfect were mathematics and physics, as completed by Isaac Newton. Nevertheless, meanwhile, both mathematics and physics progressed enormously and the respective advance influenced logic, too. Let us ignore, at this point, the formalization of logic authored by A. Whitehead, B. Russell et alii. Even more interesting is the fact that the micro-physical experience (derived from discoveries such as Einstein’s theory of relativity, Heisenberg’s principle of indeterminacy etc.) encouraged Stéphane Lupasco, for instance, to propose a “dynamic logic of antagonism” and to theorize “the principle of included middle”. Dewey also remarked this tendency: “Certain data discovered by using the Einsteinian theory of relativity contradicted the Newtonian formula of gravitation. If such negations had the independent and final logical status attributed to them by traditional formalistic logic, either the Newtonian formula would have been declared invalid and the matter would have ended there, or else the observational data would have been declared false and impossible because they contradicted the general proposition. Even in the cases in which an exception turns out to be apparent rather than actual, the older generalization is not simply confirmed, but gains a new shade of meaning because of its capacity to apply to the unusual and seemingly negative instance. It is in this sense that «the exception proves the rule». (Dewey, 1938, pp. 196-197).

6. Some of the principles vehiculated by the Roman law seem to be equally immutable. Not only do they preserve in a concise form obvious truths, but also present themselves (and still circulate) in the prestigious garment of the Latin language – very suitable, for Latin was often thought to discipline thinking thanks to its extremely rigorous grammar, made up of mostly regular paradigms. Since the logical principle of excluded middle itself was contested as a result of the discoveries of modern science, one wonders if some of the truths preserved in the Latin juridical formulae are also contestable. Certainly, as seen before, the natural law of the former category (LAW₁) can be contradicted, corrected or refined by the natural law from the latter category (LAW₂). Let us take, for example, a well-known juridical
principle: *Mater certa, pater incertus* (‘The mother is certain, the father is uncertain’). Nowadays, such a “law” (immutable in its millennial truth) can no longer be held universally valid, because some “exceptions” have been observed in the last decades. At this point, we have to make a distinction: a principle can be justly contested either (α) as regards its content or (β) as regards its expression (only in this order, since β, if produced, derives from α).

6.1. As regards its content, it is stated that the principle *Mater certa, pater incertus* lost its validity some decades ago, when surrogate mothers appeared (Pusca, 2009, p. 386), being able to bear and deliver children conceived through the technique of *in vitro* fertilization; thus, mothers were instantly not as “certain” as before... On the other hand, due to genetics, lately fathers have not been as “uncertain” as before either, for they can be precisely identified with the help of DNA tests. The Germans, for instance, improved the respective principle by adding (in 1997) in their Civil Law a paragraph concerning “maternity”, according to which “the mother of a child is the woman who gave him birth” (for further details, see Duggan, 2014, pp. 1-23). However, this is also a rather clear example proving that sometimes the logic of common sense, based on the long-term observation of nature, takes (together with the norms of the Roman law) a step backwards due to the scientific progress.

6.2. When considering the expression as such, we find ourselves on the field of ‘repeated discourse’ (as Coseriu broadly names phraseology), which is of interest to linguistics. Moreover, one can recognize the technique through which the phrases which belong to repeated discourse are modified according to *quadripartita ratio* (Quintilian), which Stelian Dumistrâcel fully dealt with. He is justified in saying that this type of phrases are submitted to changes that can be grouped in [only] the four “figures of construction” referred to as “solecisms” by Quintilian in *Institutio Oratoria*, that is: *detractio* (suppression), *adiectio* (addition), *immutatio* (substitution) and *transmutatio* (permutation).

I will illustrate them, on my account, in what follows, with some Latin phrases and sayings:

(1) **SUPPRESSION** – is used when, in some contexts, it is enough to say just *verba volant* or *scripta manent*, there being a left or right suppression of the phrase *verba volant, scripta manent*;

(2) **ADDITION** – *homo homini lupus (est)* became in the Middle Ages *homo homini lupus (est), femina feminae lupior, clericus clericu lupissimus*;
(3) SUBSTITUTION – Plautus’ formula, homo homini lupus (est) is changed at various classics in homo homini deus est (Caecilius) or homo res sacra homini (Seneca);

(4) PERMUTATION – ubi bene, ibi patria was inverted by nationalists: ubi patria, ibi bene. All types of modification go under these four categories: there are not more (they are universal), just as there are only four cardinal points (see, for more details, Munteanu, 2013, pp. 27-40).

7. By way of conclusion, let us refer, once again, to the principle of Roman law aforementioned. I have to remind our readers that this circulates in different forms: Mater semper certa est; pater est, quem nuptiae demonstrant (Dig., 2, 4, 5, Paulus); Mater jure semper certa est (Dig., L.5, De in jus vocando, 2, 4) etc. (see Motica & Negrescu, 2001, p. 162). But the most frequent version is Mater (semper) certa est, pater incertus. As concerns the changes of this formula belonging to the Latin juridical repeated discourse, it is obvious that the innovations produced by recent science motivated all its possible formal changes (only four, as in Quintilian’s typology). A quick search on the Internet, using Google, will reveal all kinds of modifications. I will only record here the rarest type of modification encountered, namely permutation. For instance, two French researchers declared (in 1994), in a book about “nobody’s child”, that the principle Mater semper certa est, sed pater semper incertus became obsolete because of the tremendous scientific revolution. Consequently, they stated that – in the current context – the most appropriate formula would be Pater semper certus est, sed mater non certa (Delaisir & Verdier, 1994, p. 46).

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