Models of the Origins of Law.  
An Attempt at Appraisal from the Perspective of Evolutionary Theory.

Wojciech Załuski
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Abstract

In this article I make an attempt at evaluating in the light of evolutionary theory various models of the origins of law proposed in philosophical literature. I start by presenting a classification of the models. As a criterion for the classification I propose the question “in whose interest did the law emerge”. This question leads to the division of the models into two general groups: those which assume that law emerged in the interest of only some of the people whose behaviour it regulates, and those which assume that law emerged in the interest of all the people whose behaviour it regulates. The first group embraces two models which I call “Thrasymachian” and “Calliclesian”. The Thrasymachian model assumes that law serves the interests of the strong members of a society who invented it to subjugate the weak, whereas the Calliclesian model assumes that law serves the interests of the weak members of society who invented it to defend against and finally to subjugate the strong. I treat these models as of secondary importance as compared with the models of the second group, which embraces three models: Hobbesian, Hayekian, and Wrightian. The Hobbesian model assumes that the state of nature was a state of social chaos, and that the origins of law, which are simultaneous with those of morality, lie in a social contract. The Hayekian model assumes that the state of nature was not a state of chaos but a state of unstable cooperation, that law emerged spontaneously to “stabilize” cooperation, and that there is a qualitative difference between primitive law and modern law (while the former is an expression of our natural impulses to limit cooperation only to a small group of individuals, the latter is a remedy against these impulses – it makes possible cooperation on a broader scale). Finally, the Wrightian model assumes that the state of nature was not a state of social chaos but a state of unstable cooperation, that law emerged spontaneously to “stabilize” cooperation, and that all the types of law – both primitive and modern law – are a natural extension of our innate tendencies for cooperation. I examine which of these models is most plausible in the light of evolutionary theory. I argue that evolutionary theory falsifies the Hobbesian model but it does not fully confirm either the Hayekian model or the Wrightian model, though it seems to better confirm the latter one.

Keywords

Origins of law, evolutionary psychology
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1. Classification of the models of the origins of law

The purpose of the present essay is to evaluate from the standpoint of evolutionary theory various models of the origins of law proposed in philosophical literature. As a criterion for classifying the models I have selected the question “in whose interest did the law emerge” (is fecit cui prodest). This question leads to the division of the models into two groups: those which assume that law emerged in the interest of only some of the people whose behaviour it regulates, and those which assume that law emerged in the interest of all the people whose behaviour it regulates. The first group embraces two main models: Thrasymachian (after the name of the sophist Thrasymachus – a character in Plato’s Republic), which assumes that law serves the interests of the strong members of a society who invented it to subjugate the weak ones, and Calliclesian (after the name of Callicles – a character in Plato’s Gorgias), which assumes that law serves the interests of the weak members of society who invented it to subjugate the strong ones. The second group embraces three main models: Hobbesian (proposed by Thomas Hobbes), the Hayekian (proposed by Friedrich August von Hayek), and the Wrightian (proposed by Robert Wright). Of course, one could distinguish some additional models within the two groups (especially within the group of the models assuming that law emerged in the interest of all), e.g., Rousseau’s model or Locke’s model. However, I think that such multiplication of the models (which are either completely counterfactual, like Rousseau’s, or differ very little from those I analyse, like Locke’s model from Wright’s) would not contribute much to my analysis. The final classification of the models of the origins of law can therefore be

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* I would like to thank Giovanni Sartor very much for very helpful, critical comments on the first draft of this paper.

1 A historical remark: Thrasymachus was a real person – a famous rhetorician; of Callicles we know nothing – we do not even know whether he existed. While presenting the Thrasymachian and Calliclesian models I assume that Thrasymachus’ and Callicles’ views were such as they were presented in Plato’s dialogues.
presented as follows:

Models of the origins of law

The “law as emerging in the interest of some” models

The “law as emerging in the interest of all” models

Thrasymachian

Calliclesian

Hobbesian

Hayekian

Before passing to an analysis of the models, some remarks about the relations between the models and reconstructions of the origins of law made by historians may be in order. The task of historians is to provide detailed descriptions of the origins of law in respective societies. Needless to say, such descriptions, which take account of all the nuances of the processes of the origins of law in respective societies, cannot be replaced by general analysis of the origins of law of the sort conducted in the present essay. It does not have to mean, however, that such an analysis, consisting in distinguishing most general schemes, i.e. models, according to which the law may have emerged, cannot be useful for historians. I believe it can be in the sense that it provides them with possible general perspectives from which they can analyze specific historical processes.

The plan of the essay is as follows. In sections 2 and 3 I present, respectively, the “law as emerging in the interest of some” models and the “law as emerging in the interest of all” models. In section 4 I examine which of the “law as emerging in the interest of all” models is most plausible in the light of evolutionary theory. I argue that evolutionary theory falsifies the Hobbesian model but it does not fully confirm either the Hayekian model or the Wrightian model, though it seems to better confirm the latter one.

2. The “law as emerging in the interest of some” models

The models discussed in this section assume that law is an invention of one group of people to subjugate another group of people.

2.1. The Thrasymachian model

The Thrasymachian model (presented in Book I of Plato’s Republic) asserts that law is an invention of the strong to subjugate and more easily govern the weak. An important element of this model is the assumption that the strong not only invent the law to subjugate the weak but also try to induce in the weak a conviction that the law is just (even though, according to this model, law is in fact nothing more than an
expression of the interests of the strong). The Thrasymachian model assumes, then, that each kind of regime (democratic, oligarchic, etc.) adopts laws in the interest of the ruling party (that of poor people or that of rich people, etc.) and then declares these laws to be just for all the subjects. According to this model, then, appealing to the notion of justice is simply a manoeuvre of the strong aimed at consolidating and justifying their power over the weak.

The modern version of the Thrasymachian model is the genetically interpreted account of Marx’s function of law. Marx famously maintained that law is just an expression of the interests of the ruling class. He claimed that in any society the ruling ideas (among which a special place is occupied by the ideas of what is just) are those of the ruling class. In Marx’s account, then, the function of law and the ideas of justice is to stabilise, to ideologically justify the existing economic structure, and thereby to serve the interests of the ruling class. Now, if one gives a genetic interpretation to this functional account of law, one obtains an account of the origins of law (this interpretation of the Marxian account, not entirely uncontroversial, assumes, then, that the function of law, i.e., serving the interests of the ruling class, explains the origins of law).

It is not easy to evaluate this model. Undoubtedly, throughout human history many states were formed by violent conquests. The law enacted by the rulers of thus formed states may plausibly be viewed as being created in the interests of only some of the members of the state (i.e., the members of the invading group and thereby of the ruling class of the newly arisen state). Furthermore, the Thrasymachian model of the origins of law can also be regarded in many cases as an apt description of how the law may have emerged in a given society in the first place. In summary, the Thrasymachian model seems to be adequate in the sense that, first, it aptly describes the way in which a stronger state or society imposes its own legal system on a weaker state or society, and, second, it aptly describes the way in which the law emerged in the first place in some societies.

2.2. The Calliclesian model

The Calliclesian model (presented in Plato’s Gorgias) asserts that law is an invention of the weak and inferior to subjugate the strong and superior. The inferior invent law to make

slaves of those who are naturally better (Plato 1997a, Gorgias, 491e-492a) (...) the weaker folk, the majority (...)frame the laws for their own advantage, [in order to] frighten [the strong] by saying that to overreach others is shameful and evil (Plato 1997a, 483b-d) (...) the people who institute our laws are the weak and the many (...) they assign praise and blame with themselves and their own advantage in mind (Plato 1997a, 483b) (...) [the many] mould the best and the

2 As Thrasymachus says: “Justice is nothing other than the advantage of the stronger (Plato 1997b, 338c) (...) And they declare what they have made – what is to their own advantage – to be just for their subjects (...) This, then, is what I say justice is, the same in all cities, the advantage of the established regime (Plato 1997b, 338e-339a)”.

3 Compare the following quotation: “In capitalism, Marx argued, the state is the guarantor of exploitation, by protecting the class of exploiters against the exploited and against its own individual members. The protection against the exploited may take the form of direct oppression, the indirect form of acting as a lightning rod for opposition, or the even more indirect form of enacting measures in favour of the exploited in order to provide an appearance of legitimacy (Elster 1986, p. 88)”. 
most powerful among us (…) and with charms and incantations we subdue them into slavery, telling them that one is supposed to get no more than his fair share (Plato 1997a, 483e-484a).

Law is therefore a tool which enables the weak an efficient self-defence against the strong. In other words, law is the safeguard of the weak, who, since they are unable to do what the strong can do, decide to put the actions of the strong under the ban of law.4

The modern version of the Calliclesian model is Nietzsche’s account of the emergence of morality and law presented in his *Zur Genealogie der Moral*. According to Nietzsche, the origins of morality (and, in consequence, the origins of law) reflect power relations. He claims that initially, on the grounds of what he calls “aristocratic morality”, human deeds were evaluated by the following two groups of adjectives: on the one hand, by such adjectives as, for instance, “noble”, “strong”, “magnanimous” (which formed the meaning of the word “good”), and, on the other, by such adjectives as, for instance, “ignoble”, “weak”, “lowly-spirited” (which formed the meaning of the word “mediocre”). Accordingly, Nietzsche asserts that on the grounds of aristocratic morality the basic opposition was between good and mediocre (*schlecht*), while, as we shall see below, on the grounds of slave (non-aristocratic) morality the basic distinction was between good and evil (*böse*).5 As is well known, aristocratic morality was for Nietzsche an ideal to be pursued also in modern times. The main question Nietzsche tackles is how it may have happened that aristocratic morality (according to Nietzsche, most fully realized in ancient Rome and later partly revived during the Italian Renaissance) was replaced with slave morality. Nietzsche maintains that the weak (mediocre, inferior), being unable to practise the virtues of the strong (noble, superior) called these virtues (pride, ruthlessness, and the like) “vices” and the strong “evil”. At the same time, the weak re-described their own weaknesses in morally praiseworthy terms – they declared them to be virtues – and called themselves “good” (accordingly, they re-described their impotence as “goodness of heart”, their timid and anxious lowliness as humility, their cowardice, inoffensiveness and “lingering at the door” as “patience”, their inability to wreak vengeance as “not wanting vengeance”, “forgiving”, or “the love of enemies”, their desire for retaliation as “a desire for justice”, etc.). Thus, in Nietzsche’s view, the weak, unable to achieve the values of the strong, belittled these true (according to Nietzsche) values and raised to the status of true values their own weaknesses; what was considered good on the grounds of aristocratic morality came to be considered evil on the grounds of the new – slave – morality. Nietzsche claims that the psychological feeling which propelled the above process of reversing values was *ressentiment* of the weak – the feeling of jealousy mixed with an awareness of one’s own weakness – which led them to belittle the value of what they were incapable of achieving. Nietzsche calls this reversal of values perpetrated by the weak their “imaginative revenge” wrought on the strong (Nietzsche maintains that the weak were capable only of this kind of revenge, as they were too timid to face up to the strong in a real fight). Nietzsche admits that that *ressentiment* proved to be creative in the sense that it generated new values which were adopted by the strong (the moment when the

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4 Callicles also had another view – his advocacy of unrestrained hedonism – which became famous but which is irrelevant for the present discussion: “(a)nyone who is to live aright should suffer his appetites to grow to the greatest extent and not check them (Plato 1997a, 419e)”. 

5 He supports his historical account of the change of the meaning of the words “good” and “evil” by arguing that there is an etymological connection between the German words “*schlecht*” (common, plain, mediocre) and “*schlecht*” (bad), which reflect the hierarchy of values of the aristocratic morality; see Nietzsche 1988, p. 240-260.
strong started to evaluate themselves through the prism of the values generated by *ressentiment* was the moment of the triumph of slave morality). Nietzsche notes that another difference between aristocratic and slave morality (the difference being a consequence of the fact that slave morality is the product of *ressentiment*) is that while the former is generated in a positive way, i.e., spontaneously (as an expression of vital forces of aristocratic spirits) and not in opposition to some other kind of morality, the latter is generated in a negative way, i.e., in opposition to aristocratic morality. It should be added that while Nietzsche speaks about slave morality he means Christian morality or at least morality based on Christian values (like humility, pity, compassion, selflessness, equality, obedience, etc.) dominant in modern times.⁶

It seems to me that the Calliclesian model is less plausible than the Thrasyvachian one. While the latter aptly describes the way one state or society imposes its law on some other state or community and may also aptly describe the way in which law emerged in the first place in some societies, the former obviously cannot aptly describe the way in which one state or society imposes its law on some other state or society and only in exceptional cases may aptly describe the way law emerged in the first place.

3. The “law as emerging in the interest of all” models

Models presented in the present section assume that law emerged in the interest of all the members of a given society.

3.1. The Hobbesian model

The Hobbesian model is based on the following assumptions: (1) people are deprived of moral sentiments, i.e., they are egoistic; (2) the state of nature was a state of social chaos; (3) the origins of law, which are simultaneous with those of morality, lie in a social contract. This model therefore implies that morality and law are not a natural extension of human beings’ moral sentiments, as human beings are endowed with no such sentiments. Let me examine these assumptions in more detail.

1. People are deprived of any moral sentiments, i.e., they are egoistic.

People are motivated by egoism. They have no moral preferences. Apart from their being motivated by egoism, however, they have another characteristic: they fear violent death. Their fear of violent death is derived from the fact that their basic purpose is self-preservation.

2. The state of nature was a state of social chaos in which people unsuccessfully pursued their own egoistic interests.

Individuals motivated by egoism were unable to cooperate for mutual advantage. They were permanently tempted to defect in their interactions. Accordingly, in the absence of law and of a central authority enforcing the law, the state of nature was bound to be a state of “war of all against all”. Life in a state of nature was, as Hobbes famously put it, “solitary, nasty, brutish and short”. Therefore the natural condition of mankind was a state of violent conflict produced by men’s deeply antisocial qualities. The only motive strong enough to overcome these qualities was fear of mortal danger arising from man’s basic desire – the desire for self-preservation.

⁶ More on Nietzsche’s account of the origins of morality can be found in an excellent collection of essays Schacht 1994.
(3) The origins of law, which are simultaneous with those of morality, lie in a social contract.

Morality and law came into being simultaneously as the result of a social contract; they are therefore artificial inventions. The social contract was both necessary and possible because of two characteristics of human beings: their anti-sociality, i.e. egoism (which resulted in the state of chaos and thereby made the contract necessary) and their rationality (their rationality made their contract possible – they understood that they can better realize their basic purpose, i.e., self-preservation, if they create the law and establish an authority to enforce it). The very social contract is, as Hobbes describes it, a transformation of *ius naturale* (the right of nature), which is the right of every human being to every thing (even to another person’s body) into *lex naturale* (the law of nature), which is just a set of hypothetical imperatives aimed at guaranteeing self-preservation to human beings. Therefore the social contract consists in human beings giving up part of their *ius naturale* to make possible *lex naturale*, which constitutes the foundation of social order and thereby enables leaving the state of nature.

3.2. The Hayekian model

In the following presentation I shall focus on Hayek’s model of the emergence of law. I devote more attention to Hayek’s account of the origins of law than to the other accounts. There are two reasons for this. First, Hayek’s account of the origins of law is strictly connected with his criticism of socialism, and it is interesting to show exactly what this connection is. Second, Hayek’s account includes an interesting comparison of biological and cultural evolution which deserves to be at least briefly summarized. At the end of this section I shall argue that the model displays important similarities to Hume’s account of the origins of law.

The Hayekian model is based on the following assumptions: (1) people are narrowly altruistic; (2) the state of nature was not a state of chaos but a state of unstable cooperation; (3) law emerged spontaneously to stabilize the cooperation; (4) only primitive law, not modern law, is an extension of our innate tendencies for cooperation; the purpose of modern law is to control our self-destructive impulses to impose our small-group sentiments on modern society. I shall successively discuss these assumptions.

(1) People are narrowly altruistic.

Hayek has no illusions regarding human nature: he does not assert that individuals are genuinely moral. On the other hand, his view of human nature is not pessimistic: he does not assert that individuals are egoistic or immoral. He takes the intermediate view saying that individuals are narrowly altruistic (though he does not use exactly this term): people have the capacity for kin altruism and reciprocal altruism.

(2) The state of nature was not a state of chaos but a state of unstable cooperation.

Hayek asserts that there never was any kind of state of nature understood as a state of social chaos – “the war of all against all”. In primitive societies – small, peaceful hunter-gatherer groups – individuals know each other well, could agree upon common objectives and common methods of achieving these objectives, and shared goods without enmity and to mutual benefit. According to Hayek, then, primitive individualism is a myth, as the nature of primitive societies is collective. However, cooperation in primitive societies was not stable because reciprocal altruism is not a fully reliable psychological mechanism: many conditions have to be fulfilled for it to
generate cooperative behaviour; besides, it is very inefficient when faced with the problems of multi-person collective action. Thus, the main function of law is to stabilize cooperation. This leads us to the third thesis:

(3) The law emerged spontaneously to stabilize cooperation.

Primitive law emerges in two phases. First, there arise customs (conventions of cooperative behaviour) that facilitate solving collective action problems. These customs can be called “law” in the loose (sociological) sense. This law is then buttressed and enforced by law in the strict (legal) sense, i.e., a system of norms secured by institutionalized coercion. According to Hayek, however, there is a profound difference between primitive law and modern law. The difference is captured in the fourth thesis:

(4) Only primitive law, not modern law, is an extension of our natural instincts; the purpose of modern law is to control our self-destructive impulses to impose our small-group sentiments on modern society.

Hayek maintains that only the rejection of the “simple socialism” of primitive societies enabled human beings to expand and finally to create what he calls “the Extended Order” (or, equivalently, “the Great Open Society”), i.e., a society of capitalism characteristic for the Western world. He points out that the crucial step in the process of creating the Extended Order was the passage from collective to private property, which made possible the trade and exchange of goods. Exchange economy, in turn, enabled the division of labour, so that each individual could specialize in particular tasks. Specialization was of crucial importance for generating greater efficiency, as it made possible the production of complex goods which no individual could have made for herself. In consequence, these economic improvements permitted human numbers to increase (according to Hayek, then, most of humanity owes its existence to the increased efficiency made possible by the Extended Order – the free exchange economy). Hayek emphasizes that the rules underlying the Extended Order are general, abstract and end-independent. Thus, in his view, the Extended Order is created by abstract and general rules, not by group ends, and is rule-bound, not end-connected (in other words, the Extended Order is nomocratic, not teleocratic). Those general, abstract and end-independent rules made possible coordination of actions of thousands of people living in a complex society (these rules underlay the development of agriculture, cities, commerce, etc.). Hayek calls the Extended Order “cosmos” as opposed to “taxis” – a

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7 Compare the following quotation: “We must admit that the replacement of the concrete goals that we pursue by the observation of purely abstract signals has been not only the sole possible way in which a worldwide division of labour could have been created, but also the only way in which today we are able to maintain an economic order which, by making use of much more information than any person possesses, can keep the present population of the world alive (Hayek 1983, p. 35)”.

8 Hayek uses a suggestive metaphor to describe the transition from primitive morality to the morality of the Extended Order: “I sometimes like to say – and I think this is more significant than a mere simile usually is – that our learning of traditional morality, which largely involved restraining our inherited instincts, is a step in evolution as important as the addition of the sense of vision to the sense of touch. There was one time when animal organisms were possessed only of a sense of touch, and were, of consequence, aware only of what happened in their immediate neighbourhood. And then, perhaps a hundred million years ago, they acquired the sense of vision and became aware of what happened at a distance. Now, we too have acquired a further sense, what psychologists would call an extrasomatic sense, not built onto our physiology, but allowing us to adapt ourselves to events which happen far beyond our vision. We are living in a society which exists only because we are capable of serving people whom we do not know, and even of whose existence we are ignorant; and we in turn constantly live on the services of people of whom we know nothing (Hayek 1983, p. 45-46)”.

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purposive order of primitive societies. An interesting point in Hayek’s account is his claim that religion props us the Extended Order, as it supports family and property.

In the remainder of this section, I would like to focus on three other points of Hayek’s analysis that deepen his above presented picture of the origins of law: his claim that psychological foundations of primitive law are essentially different from those of modern law; his description of the mechanism (cultural evolution) that led to the development of modern law; his claim that there is a connection between the psychological foundations of primitive law and the ideas of socialism.

Psychological foundations of primitive and modern law

Hayek claims that primitive law is an expression of our natural, small-group instincts, while modern law is a mechanism for counteracting these instincts. He maintains that in primitive – hunter-gatherer – societies (consisting of about fifty people) people pursued common ends with other fellows (Hayek calls this “solidarity”) and were inclined to attend to the known needs of known people (which Hayek calls, somewhat misleadingly, “altruism”) but disinclined to attend to the unknown needs of unknown people. He stresses that these two “good instincts” were an obstacle to the extension of society beyond small groups, because such an extension is possible only if people can freely pursue their own objectives (which implies the abandonment of solidarity) and engage in mutually beneficial but “abstract” relationships with strangers whom and whose needs they do no know (which implies the abandonment of altruism). However, as Hayek argues, there were slowly developing rules of another kind, guaranteeing private property, competitiveness, and privacy, i.e., the rules which constitute the Extended Order and therefore are the condition of the existence of humankind in its contemporary dimension. These rules constitute our contemporary morality and limit our natural morality based on instincts (which, as mentioned, were shaped during thousands of years of living in small hunter-gatherer groups and which guaranteed cooperation within such groups at the cost of limiting their expansion). Thus, Hayek claims that the Extended Order morality is beyond the sphere of instinct. However, he stresses that the Extended Order morality could not have been created or projected by reason either. How, then, according to Hayek, could this morality have come into being if it is neither an expression of instinct nor an invention of reason?

Hayek’s response is that the morality of the Extended Order emerged in the process of cultural evolution and, consequently, that its source lies between instincts and reason,

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9 As mentioned, according to Hayek, in primitive societies human actions were coordinated around a purpose, while in the extended order human actions are coordinated by means of rules.
10 As he writes: “(t)he only religions that have survived are those which support property and family (Hayek 1983, p. 48)”.
11 As Hayek puts it, “Our instincts tell us, first, that our duty is to serve the visible needs of our known friends; and, second, that the activity that gives us most satisfaction is to join in a common effort for common end (Hayek 1983, p. 38)”.
12 Hayek writes that the following two practices are most typical of the Extended Order and underlie material advance: “(t)he pursuit of profit rather than the satisfaction of known needs and the emancipation from the compulsion of sharing the common purposes of the small group into which we were born (Hayek 1983, p. 43)”. 

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namely, in custom (learnt rules). As we can see, according to Hayek, the rules of conduct underlying the Extended Order are neither encoded in our biological framework nor are they the product of human reason – they are encoded in customs. Let us look more closely at the Hayekian account of the mechanism of cultural evolution, which led to the spontaneous emergence of the Extended Order.

Hayek’s central claim is that the cultural evolution of the rules of conduct (constituting morality and the law) proceeds through group selection: those groups which adopt rules more favourable for survival and reproductive success win in competition with groups which adopt rules less favourable rules for achieving these ends, as they develop faster and their populations becomes more numerous. Hayek makes an interesting comparison of biological evolution with cultural evolution. He asserts that cultural evolution is much more similar to biological evolution than to the development directed by reason or based on the prior knowledge of the effects of people’s decisions. The basic similarity between biological and cultural evolution is that both types of evolution involve adaptation (i.e. are the processes of continual adaptation to unpredictable circumstances), variability (they “choose” from among various solutions), and competition (they operate according to the same principle of selection – survival and reproductive success: those solutions survive which best serve these ends). Furthermore, both types of evolution are not based on any kind of laws which would enable predicting future events. However, there are also important differences between them. The differences are a consequence of the fact that biological evolution is biological, organic and somatic, whereas cultural evolution is psycho-social, supra-organic, extra-somatic. Besides, they operate according to different mechanisms of transmission: in the case of biological evolution the mechanism is transmission of genes, in the case of cultural evolution the mechanism is learning by imitation (cultural evolution is therefore a non-biological phenomenon, since – by definition – what is not transmitted through biological ways is not a biological phenomenon). Accordingly, cultural evolution has its specific features; it cannot be explained on purely biological grounds and thereby cannot be reduced to biological evolution. The following table summarizes Hayek’s account:

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13 Hayek points out that biological evolution works too slow to be able to generate in 20 or 30 thousand years rules constituting the Extended Order. He says that prolongation of our childhood and youth were probably the last two things determined by biological evolution. This step made possible great differentiation and thereby acceleration of cultural evolution, thereby increasing the rate of the growth of the population of homo sapiens.

14 Thus, both a theory of cultural evolution and a theory of biological evolution are the theories of change which do not formulate any laws enabling predicting next phases. Thus, one cannot predict the results of a given mutation or of adopting a given rule (incidentally, this undermines, in Hayek’s view, all kinds of traditional historiosophy).

15 More on cultural evolution can be found in, e.g., Cavalli Sforza 2004.
To sum up, the basic mechanisms of cultural evolution are the transmission of rules and group selection: those groups which adopt better rules ensuring higher chances of survival and the reproductive success of their members (and therefore a higher growth of the population of these groups), gain an advantage over and win in competition with those groups which adopt rules that worse serve the realization of these ends. These rules can be described as restraints on our instincts, gradually replacing innate reactions underlying primitive morality, i.e. morality based on instincts. The order constituted by those rules is spontaneous: no creator had designed it and would never be able to design it.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Biological evolution</th>
<th>Cultural evolution</th>
</tr>
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<tbody>
<tr>
<td><em>Darwinian or Lamarckian?</em></td>
<td>Is not based on the Darwinian scheme; excludes inheritance of acquired traits</td>
<td>Is based on the Lamarckian scheme: transmission of invented rules through mechanisms of imitation, learning. Modern morality and the law are the products of selective evolution based on transfer through imitation, and not through genetic processes.</td>
</tr>
<tr>
<td>Transmission</td>
<td>Transmission of genes solely from our biological parents</td>
<td>Transmission of tradition is not only from our biological parents, but also from many other persons.</td>
</tr>
<tr>
<td>Speed</td>
<td>Slow – natural selection operates on the basis of random mutations</td>
<td>Fast – rules are not “random” – they are purposive and can be generated in unlimited numbers.</td>
</tr>
<tr>
<td>Mechanism of selection</td>
<td>Gene selection (it is a matter of dispute whether biological evolution may also be based on the mechanism of group selection)</td>
<td>Group selection: groups or societies which behaved in a given way survived and increased their population.</td>
</tr>
<tr>
<td>Unit of selection</td>
<td>Genes</td>
<td>Rules</td>
</tr>
<tr>
<td>Source of variability</td>
<td>Mutations</td>
<td>Human creativity&lt;sup&gt;16&lt;/sup&gt;</td>
</tr>
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</table>

To sum up, the basic mechanisms of cultural evolution are the transmission of rules and group selection: those groups which adopt better rules ensuring higher chances of survival and the reproductive success of their members (and therefore a higher growth of the population of these groups), gain an advantage over and win in competition with those groups which adopt rules that worse serve the realization of these ends. These rules can be described as restraints on our instincts, gradually replacing innate reactions underlying primitive morality, i.e. morality based on instincts. The order constituted by those rules is spontaneous: no creator had designed it and would never be able to design it.

<sup>16</sup> Compare the following quotation: “I think that the first member of a small group who exchanged something with an outsider, the first man who pursued his own ends, not approved and decided by the hand, or by the common emotions of the group, the first man above all who claimed private property for himself, particularly private property in land, the first man who, instead of giving his surplus product to his neighbours, traded elsewhere – not to speak about the later development with money and money lending, particularly money lending with interest – contributed to the development of an ethics that made the worldwide exchange society possible. This had to be achieved, however, in constant struggle with the predominant opinion of the group in which he lived – opinions supported by the wise old men – and, once there was a state and authority or organized religion, both by the state and by religion (Hayek 1983, p. 32-33)”; “The first traders in the Mediterranean who, instead of giving what they had to their known members, traveled overseas to exchange it for something else that they brought home, certainly infringed on the traditional rules. Instead of seeking the elation that we still all fell when following common purposes with our known fellows, the first people who decided to pursue their own ends, which their fellows did not share, were certainly infringers on traditional rules (Hayek 1983, p. 39)”. 

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Psychological foundations of primitive law and ideas of socialism

Hayek maintains that the tribal instincts of solidarity and altruism, being directed only towards the members of one’s own group, but not towards other groups, were an obstacle for creating a large, modern society and still constitute a threat to it. He argues that socialism appeals to these instincts and thereby has a “reactionary character”. In his view, therefore, the main psychological source of socialist ideas lies in our atavistic longing for the life of a noble savage – a member of the hunter-gatherer band. According to Hayek, the problem is that those instincts, formed in the hunter-gatherer bands, are appropriate only there; to yield to them and thereby to abandon the main institutions of modern law (like private property), which is postulated by socialists, would undermine the Extended Order and, in consequence, force most of humankind into starvation. As we can see, Hayek’s claim is that the socialist conception of morality (and other rationalist conceptions of morality, like utilitarianism) is embedded in, psychologically driven by, or at least not inconsistent with our instincts.

His crucial point is that there is an inevitable conflict between, on one hand, the morality of the Extended Order, and, on the other, the primitive and rationalist moralities. The status of primitive morality is, however, on Hayek’s account, different from the status of rationalist moralities. Even though Hayek draws a sharp distinction between primitive morality and the morality of the Extended Order, he does not assert that the latter has entirely replaced or should entirely replace the former. Primitive morality has not replaced the morality of the Extended Order because we still have those instincts which underlie primitive morality. Primitive morality should not replace the morality of the Extended Order because the structure of the Extended Order consists not only of individuals, but also of many lower-level orders (small groups), within which old, instinctive reactions (solidarity, altruism) preserve their significance. Hayek, then, accepts the fact that we live according to two kinds of morality; what he emphasizes is that we should not transfer the rules of one of them to the other, because, in his view, applying the rules of a given morality not in its proper field can only destroy this field. It should be stressed, though, that Hayek does not make this kind of concession for rationalist moralities: there is no field where they can be reasonably applied.

In Hayek’s view, the above account of the differences between, on one hand, the morality of the Extended Order, and, on the other, primitive morality and rationalist moralities provides an explanation of why people are unwilling to accept the morality of

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17 Compare the following quotations: “There can be no doubt that our innate moral emotions and instincts were acquired in the hundreds of thousands of years – probably half a million years – in which Homo Sapiens lived in small hunting and gathering groups and developed a physiological constitution which governed his innate instincts. These instincts are still very strong in us. Yet civilization developed by our gradually learning cultural rules which were transmitted by teaching and which served largely to restrain and suppress some of those natural instincts. Although we are still inclined to describe those as ‘good instincts’, we must, to a large extent, suppress them in order to maintain our type of society and an economic order upon which the society can depend. There is, in this sense, a conflict among different moral rules (…) (Hayek 1983, p. 30)”.


19 Hayek notes himself that it is a “curious fact” that in the movement against the morality of the Extended Order “two completely different traditions converged: an appeal to innate primitive instincts, and the ultrarational argument of the latest philosophers – that one ought not to respect anything that one could not rationally justify (Hayek 1983, p. 42)”.
the Extended Order. First, since the morality of the Extended Order restrains people’s natural instincts, it cannot be readily accepted by them. Second, since the Extended Order emerged spontaneously, through the process of cultural evolution which human beings do not understand and cannot control, they are unwilling to accept the rules which constitute this order (because human beings are unwilling to accept anything they cannot understand). This unwillingness to accept what one cannot fully understand is a manifestation of what Hayek calls “fatal conceit”, i.e., the conviction, characteristic for rationalist morality, that human beings can design a better, more just social order than the order which emerged spontaneously as a result of cultural evolution. Hayek distinguishes common assumptions of the views which are subject to fatal conceit: (a) it is irrational to behave in accordance with what cannot be scientifically proven; (b) it is irrational to behave in accordance with what one does not understand, whose purpose is not a priori defined, whose effects are not known, not observable, and whose utility cannot be ascertained. Hayek rejects these assumptions on the grounds that any interference with the process of cultural evolution with a view to guaranteeing just results would lead to a decrease in social welfare. He says that, e.g., Rawls’s world would never be a civilized world: stopping the random process of differentiation would stop the process of discovering new possibilities and would lead to a decrease in social welfare.

To sum up, Hayek shows how morality and law came into being and what implications their origins may have for our economic and political life. Hayek’s main claim is that the purpose of modern law underlying the Extended Order is to control our self-destructive impulses to impose our small-group sentiments on modern society. Modern law came into being as a result of cultural evolution with its mechanism of group selection.

At the end of this section I would like to point at some similarities between Hayek’s account of the emergence of morality and law and Hume’s account. Let me start with the remark that David Hume – like Hayek later – rejects Hobbes’s claim that human beings are entirely selfish and maintains instead that they have a range of passions which are aimed at promoting social welfare (Hume calls them “moral passions”, or “virtues”). Hume makes a crucial distinction between natural and artificial virtues. Natural virtues (like benevolence or confined generosity) he calls natural “in the twofold sense that they exist apart from social conventions and that they do not require explicitly ethical thinking to issue in action (Slote 2007)”. By contrast, justice (understood as a virtue connected with goods and property and consisting in respect for property and promise-keeping), which is the main artificial virtue, does not spring directly from human nature, but is the product of human artifice, invention and contrivance; it is therefore artificial because it “depends for its existence on human conventions and artifices and because the primary motive for justice is a sense of justice

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20 Compare the following quotation: “The great problem for social policy is that we hate the idea that we owe all our success, not to our intelligence having chosen our culture as the right thing, but to having selected, as it were, for doing the right thing without actually knowing why it is better. (…) The morality which makes the extended order possible has not been invented by us and has never been understood by us; and therefore we hate it. And the people who pretend that we could return to follow our natural instinct have great appeal (Hayek 1983, p. 55)”.

21 Hume writes that one of their functions is to provide a solution to the problems of “delayed mutualism”. 

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(Slote 2007)”. Now, it seems that Hume’s distinction between natural virtues and artificial virtues corresponds to Hayek’s distinction between primitive morality (based on instincts of solidarity and altruism) and Extended Order morality (developed in the process of cultural evolution).22 Hume claims that artificial virtues developed spontaneously: since they turned out to bring about beneficial results, people kept on practicing them. Hume also provides an account of the origins of government. He notes that small societies can preserve internal order without any central authority. Individuals voluntarily comply with the conventions of ownership, transfer of goods, and keeping of agreements, relying only on informal forms of enforcement (like social exclusion). However, when the population gets larger and material productivity increases, the rate of defection rises to the extent that informal forms of norms enforcement are no longer sufficient to preserve social order (the rise in defection can be accounted for by the fact that a greater number of material goods strengthens the temptation to defect and that transactions become more anonymous and thereby the chance of getting away with defection becomes larger). Even though people may be aware of the fact that violating the rules of justice is in the long run detrimental to their interests, they are not likely to resist the temptation to defect because of their tendency to choose smaller near-term good than a larger but long-term one. This necessitates the invention of government to enforce the rules of property and promise (Hume calls them “laws of nature”, though on his view they are not natural), to adjudicate the cases in which there arises a controversy over what justice requires, and to carry out projects for the common good (such as building roads and dredging harbors).23

3.3. The Wrightian model

The Wrightian model is based on the following assumptions: (1) people are narrowly altruistic; (2) the state of nature was not a state of social chaos but a state of unstable cooperation; (3) law emerged spontaneously to stabilize cooperation; (4) all types of law – both primitive and modern – are a natural extension of our innate tendencies for cooperation. I shall examine these assumptions in more detail.

(1) People are narrowly altruistic.

People display in a systematic way two forms of altruism: kin altruism and reciprocal altruism. They cannot be said to be altruistic tout court or genuinely moral because they do not display pure altruism, i.e., they do not display in a systematic way

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22 Hayek approvingly invokes Hume’s sentence that moral rules are not conclusions derived by human reason. Of course, Hayek would object to using the term “artifical”, which suggests that they were invented. According to Hayek, they were not a result of design. As mentioned earlier, according to Hayek, the new manners of conduct were not adopted because anyone thought they were better; they were adopted because somebody who acted on them profited from them and his group gained from it, and so these rules, without anybody understanding them, gradually came to be accepted. More on the relation between Hayek’s and hume’s accounts can be found in Hayek 1967.

23 Incidentally, one can find some (though rather superficial) analogies between Hayek’s distinction between primitive and modern morality and law and Bergson’s distinction (made in his Les deux sources de la morale et de la religion) between closed and open morality. What Bergson means by closed morality is exactly what Hayek’s means by primitive morality (i.e., morality of tribal societies in which an individual is subordinate to society and has no sphere of freedom in which she could pursue her own ends). Open morality in the Bergsonian sense, however, is completely different from the Hayekian Extended Order morality: open morality is not a morality underlying market relations but a higher-level morality initiated by great spiritual figures (see Bergson 2008).
behaviour which consists in sustaining costs for unrelated persons without expecting return benefits.

(2) The state of nature was not a state of social chaos but a state of unstable cooperation.

Given people’s tendency to engage in mutually advantageous interactions (accounted for by their capacity of reciprocal altruism), the state of nature was not a state of chaos but that of cooperation. The cooperation, however, could not have been stable because reciprocal altruism is not a fully reliable psychological mechanism: many conditions have to be fulfilled for it to generate cooperative behaviour; besides, it is very inefficient regarding multi-person collective action problems (to be discussed in detail in section 4). Thus, the main function of law is to stabilize cooperation. This leads us to the third thesis:

(3) Law emerged spontaneously to stabilize cooperation.

Law emerges in two phases. First, there arise customs (conventions of cooperative behaviour) that facilitate solving collective action problems. These customs can be called “law” in the loose (sociological) sense. This law is then buttressed and enforced by law in the strict (legal) sense, i.e., a system of norms secured by institutionalized coercion.

(4) All types of law – both primitive and modern– are a natural extension of our innate tendencies for cooperation.

According to Wright, all types of law express human beings’ tendency to increase their welfare by engaging in mutually beneficial interactions.

It may be useful to state explicitly similarities and differences between the Hayekian model and the Wrightian model. It is interesting to note that both models are “externally” similar, i.e., their descriptions of “external” facts (i.e., all the facts except for psychological ones) is similar: they both assume that there was no state of nature understood as a state of chaos, that there took place evolution towards social systems of higher complexity, and that modern law guarantees higher non-zero gains than primitive law. However, the models are “internally” (that is, if one takes into account what they say about people’s motivation) very different. While the Hayekian model assumes that modern law is a mechanism for counteracting our natural tendencies, the Wrightian model assumes that modern law is an expression of these tendencies. While the Hayekian model assumes that our natural tendencies constitutes a threat to the Extended Order, the Wrightian model assumes that they support (and are supported by) this order. While the Hayekian model assumes that cultural evolution is a mechanism competing with the mechanism of biological evolution (in the sense they lead to entirely different results), the Wrightian model assumes that cultural evolution is a complementary mechanism with regard to the mechanism of biological evolution (in the sense that the former generates “inventions” that support, and do not counteract, the results of the latter).24 Accordingly, in the Wrightian model cultural evolution is less random than in the Hayekian model (as it is “on a shorter leash” of our biology, i.e., it develops our biological tendencies); thus, unlike Hayek, Wright views culture and institutions as the extension of an innate tendency to engage in mutually beneficial

24 In other words, according to Wright, biological evolution and cultural evolution share the common trait that they both have a tendency toward increasing complexity (this tendency is driven by the mutual benefits of “non-zero-sum exchange”).
Models of the Origins of Law

exchange, without Hayek’s emphasis on the small-group setting of the environment of evolutionary adaptation (EEA).

4. The “law as emerging in the interest of all” models in the light of evolutionary theory

In the present section I shall evaluate from the perspective of evolutionary theory the three “law as emerging in the interest of all” models of the origins of law. In my analysis I will be drawing on my reconstruction (made in the paper Evolutionary View of Human Nature and The Goals of Law25) of the view of human nature implied by evolutionary theory, especially by its branch – evolutionary psychology. The conclusion of this paper was that the evolutionary view of human nature holds that human beings are narrowly altruistic (they display systematically kin and reciprocal altruism but not genuine altruism) and thereby social, and imperfectly rational.

The Hobbesian model

Frans de Waal rightly criticizes Hobbes’s view according to which “(o)ur ancestors started out autonomous and combative, establishing community life only when the cost of strife became unbearable (de Wall 2006a, p. 3)”.26 Hobbes assumes a mistaken view of human society as a voluntary arrangement with self-imposed rules agreed upon by egoistic agents. As de Waal’s points out, there never was a point in history in which human beings became social; because human beings descended from highly social ancestors (a long line of monkeys and apes), they were always group-living.27 Human beings are capable of cooperation even in the absence of explicit rules, though it must be admitted that the existence of such rules stabilizes cooperation and extends its sphere. To sum up, the insights of evolutionary theory rebut the Hobbesian model. In contrast to what Hobbes claims, evolutionary biology teaches us that people will be narrowly altruistic and therefore social. They are capable of developing cooperation even in the absence of public authority.

The Hayekian model

Evolutionary theory provides only a partial support to the Hayekian model. It confirms it to the extent that the model rightly (in the light of evolutionary theory)

26 De Waal simultaneously criticizes Rawls’s view, writing that Rawls proposed “a milder version of the same view, adding that humanity’s move toward sociality hinged on conditions of fairness, that is, the prospect of mutually advantageous cooperation among equals” (de Waal 2006a, p. 4). While I agree with de Waal’s criticism of Hobbes, I do not agree with his criticism of Rawls. The basic difference between Hobbes’s and Rawls’s theories of social contract is that the former was supposed to be both descriptive and normative, the latter was supposed to be only normative.
27 Compare also the following quotation from de Waal: “Secondo una scuola di pensiero molto influente, abbiamo mosso i primi passi in uno stato di natura duro e caotico, governato dalla ‘legge della giungla’. Ne siamo usciti accordandoci su delle regole e delegando l’imposizione di queste regole a un’autorità più alta. Questa è la consueta giustificazione del sistema autocratico. E fosse invece proprio il contrario, cioè fosse venuta prima l’autorità più alta e solo dopo fossero intervenuti gli sforzi a favore dell’uguaglianza? Questo è quanto sembra suggerire l’evoluzione dei primati. Non c’è mai stato nessun caos: abbiamo preso le mosse da un chiarissimo ordine hierarchico per scoprire solo in un secondo tempo dei modi per livellarlo. Nella nostra specie agisce una vena sovversiva (de Waal 2006b, p. 110-111)”.
assumes that there existed no state of nature understood as a state of social chaos and that the law could have emerged spontaneously as a consolidation of social practices of cooperation. However, it seems to disconfirm it to the extent that the model wrongly (in the light of evolutionary theory) assumes that there is a qualitative difference between the psychological foundations of the primitive law and the Extended Order law: \textit{evolutionary theory seems to suggest that both types of law are encoded in our biological structure}. Evolutionary theory does not therefore allow one to draw a strict line (based on the difference in their psychological foundations) between primitive law and the law underlying the Extended Order: the latter seems a kind of natural extension of the former.  

Given the aforementioned similarities between Hayek’s and Hume’s accounts of the origins of law, the above objection can be reformulated so as to make it applicable to Hume’s account. It will then take the following form. The difference between evolutionary psychology and the Humean account of moral psychology lies in that they draw the line between “natural” and “artificial” in different places. According to Hume, human nature comprises natural virtues to which there has been added (as a product of human artifice) a range of artificial virtues. Accordingly, for Hume reciprocity and property are relatively novel artificial inventions, whereas for evolutionary psychologists they are ancient and hard-wired aspects of human psychology. Thus, Hume’s account of moral psychology seems to be unsustainable from the standpoint of evolutionary theory, which assumes that Hume’s artificial virtues are in fact natural, i.e., deeply embedded in our biological framework. But it should be stressed that Hume’s account of the origins of law – similarly to Hayek’s account – is perfectly consistent with evolutionary theory in so far as it assumes that people are inherently social and that cooperation is a result of various natural social and moral predispositions.

\textbf{The Wrightian model}

Evolutionary theory seems to provide a stronger support for the Wrightian model than for the Hayekian model. The former model’s central claim is that both primitive law and modern law are extensions of our natural tendencies for cooperation, and, accordingly, that cooperation may exist without legal and political institutions. Evolutionary theory teaches us that such tendencies do exist. These tendencies, not only for supporting our close kin but also for engaging in mutually advantageous interactions with strangers, are deeply embedded in our nature. Accordingly, reciprocity and attachment to property are not inventions of cultural evolution imposed on us against our natural instincts (as suggested by Hayek) but are an expression of these instincts. The role of legal norms is to stabilize cooperation and to extend its sphere. The law, however, does not have to counteract our natural instincts; rather, the law expresses these tendencies and simultaneously supports them (it can be said that there is a process of mutual reinforcement between the law supporting cooperation and extending its sphere and our natural tendencies for cooperation). It must be admitted, however, that
while the Hayekian model is (from the standpoint of evolutionary theory) overly pessimistic (as it assumes that modern law has to counteract our natural instincts and therefore finds no support in them), the Wrightian model is (from the standpoint of evolutionary theory) overly optimistic (as it assumes that the law is an expression of our natural instincts for cooperation and finds full support in them). While it is true that human beings have natural instincts (like attachment to property or reciprocal altruism) which support the Extended Order and which the Hayekian model discounts, the fact remains that some of our natural instincts (like, e.g., small-group sentiments) may indeed, as Hayek noted, constitute a threat to this order. Thus, neither the Hayekian model nor the Wrightian model seems to be perfectly consistent with evolutionary theory. An intermediate model is needed. I think that this intermediate model would much more resemble the Wrightian model than the Hayekian one. More precisely, it would be the Wrightian model supplemented with some “warnings” against the potentially destructive tendencies (like the above-mentioned small-group sentiments) inherent in human nature.

The main conclusion of the above analysis is that the Hobbesian model is to be rejected and that the Wrightian model is more convincing than the Hayekian one. I want to stress, however, that full reconstructions (to be made by historians) of the origins and the evolution of concrete legal systems, would most probably embrace the elements not only of the Wrightian model but also of the “law serving the interests of some” models, especially the Thrasymachian model. The reason is obvious. As is well known, one of the plausible theories of social development assumes that there was a kind of natural progression from tribal society (egalitarian) to chiefdom (close to egalitarian) to early state society (inegalitarian). Now, the very transition from chiefdom to an early state society (and to a certain extent also the transition from tribal society to chiefdom) seems to be “Thrasymachian” in its character: the chief and his followers augment their power and enact laws that express, justify and strengthen this power.

29 Chiefdoms are not purely egalitarian. Persons of high rank have higher status than other members of society. This inequality is reflected in their conspicuous burials and in the fact that their graves are equipped with rich goods.

30 Colin Renfrew characterizes early state societies in the following way: “Early state societies were in general class societies, where the members are born into different social classes, including at least the ruling class and the proletariat, and often with further intervening categories. The hereditary principle was an important one, with the ruler usually a close blood relative of his predecessor. A defining feature of early states is the legitimate use of force. The ruler was powerful, but his use of power was not entirely arbitrary. It was legitimized, not only by divine sanction (in most cases) but also by a system of principles of law. The law code of Hammurabi of Babylon, dating from around 1800 BCE, (…) is one of the earliest of these that have been preserved. Early state societies were often urban societies, and in many of them an early writing system was in use (Renfrew 2007, p. 173)”.

31 The following passages are good descriptions of these transitions. The first one describes the transition to chiefdom, the remaining two the transition to early state societies: “Early hunter-gatherer societies, like those of our Paleolithic ancestors, seem always to have been egalitarian communities, where individuals participated on a basis of equality, and where reputations were made on the basis of personal accomplishment, such as skill in hunting. Yet after the agricultural revolution, in most trajectories of development, we see the development of communities with leaders and followers where the high ranks often become hereditary. The state societies that sometimes subsequently developed were class societies, in which people were born to a high or a low class, and where mobility between classes could be difficult (Renfrew 2007, p. 160)” (on chiefdom see also Johnson, Earle 2000, chapter X and XI); “The power of the chief or leader was augmented by the conspicuous display of his increasing wealth, and sometimes by his control of the mechanisms of trade. In particular, if the chief could control the import of exotic
valuables, he could both ensure his own pre-eminent status in their conspicuous use and consumption and arrange that his followers could also, in a more limited way, display and enhance their prestige by a similar, if a more modest, display. Many years ago the Americanist Bill Rathje wrote an important paper suggesting how the elite rulers in the Maya lowlands further enhanced their prestige and power in this way, achieving their emergence as the recognized rulers of state societies. It seems that in general the emergence of the state often requires contest of territory as well as centralization of power. In many parts of the world the emergence of state society was accompanied by notable military achievements by the ruler (Renfrew 2007, p. 176)“.
References

**Bergson, H.**

**Cavalli-Sforza L. L.**

**Elster, J.**

**von Hayek, F. A.**


**Johnson, A. W., Earle, T.**

**Nietzsche, F.**

**Plato**


**Renfrew, C.**

**Schacht, R. (ed.)**

**Slote, M.**

**de Waal, F.**

(2006b, 2005), *La scimmia che siamo* (*Our Inner Ape*), transl. F. Conte, Garzanti, Milano.

**Wright, R.**