A Theory of Justice and Social Mechanics

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In this article, I argue that Aristotle, a universal philosopher who analysed both natural and social worlds, suggested a groundwork for a theory of justice, which is a fertile soil for a broader social perspective. Such categories as the social order, free will, law, policy choices, and the state are naturally flowing from his brief passage on justice in his *Nicomachean Ethics*. I assert that all of them are phenomena of turbulent social mechanics. Therefore, in this paper I introduce Aristotle's contribution to the mainstream theory of justice and then, loosely relying on the works of Aristotle and Newton, I develop a theory of justice in the context of social mechanics. I conclude that the concept of justice is essentially the same as Newton's third law of mechanics. For this purpose, I employ interdisciplinary and functional approaches, textual and conceptual analysis, and the method of deduction.

**Keywords:** theory of justice, social mechanics, social order, law, personal freedom, political will

INTRODUCTION

In times of booming interdisciplinary research, including justice studies, the classical teachings of antiquity are becoming of fundamental value. Although Aristotle, one of the icons of Classical antiquity, invented neither the theory of justice nor that of mechanics, he made important contributions to the development of both.

In physics, Aristotle's main contribution was in mechanics and gravity, but in a special way, since, according to him, the cause of motion was gravity alone. Although later it was replaced by Galileo's and Newton's theory of motion (Varvoglis 2014: 16), Aristotle's theory was the authority on mechanics for centuries and served as the original framework for the analysis of the relationships between force-matter-motion relationship of physical objects.

In the field of ethics, Aristotle's main contribution was his masterpiece *Nicomachean Ethics*. It is among the first systematic works on ethics, and it is arguably the most important and influential philosophical work ever devoted to this field (Polansky 2014: 1). In particular, Book V of *Nicomachean Ethics* was devoted to the theory of justice. As one commentator (Johnston 2011: 88) suggests, with the formulation of this theory, Aristotle had set the scene for many of the principal ideas that would prevail in the later history of Western thought about justice. In Aristotle's theory, we can discern many of the principal concepts, categories, and claims about justice that have been shaping Western ideas up to the present day. No single thinker has had a greater impact on our ideas about justice. The simple evidence
of his everlasting impact on the theory of justice is that the concept of distributive justice, formulated by Aristotle, was mentioned in the case law of the International Court of Justice (Libyan Arab Jamahiriya/Malta (1985)).

Bearing in mind Aristotle’s involvement in the analysis of both natural and social worlds and his interest in various disciplines, it is not surprising that as a true philosopher, he saw interconnections between them. It is obvious in Book V of *Nicomachean Ethics*, in which he used mathematical explanations to the distributive and corrective justice or attributed function of justice to the economic notion, money (Aristotle 2000: 75–76). Although Aristotle himself did not provide cross references between justice and physics, I will show that a certain analogy here may be valid. For this purpose, I will endeavour to refine his theory of justice and extract its implied elements into the broader perspective of social mechanics.

It should be noted at the outset that the term ‘social mechanics’ is not new and is occasionally used in the social sciences to describe the application of mechanics to social processes. The ancient theory of justice or the concept of social order are not new either (Hardin 2001: 61–85). However, here I fuse them into a new and broader societal theory with its main elements – social order, social forces, justice, injustice, a just state, an unjust state, personal freedom, and political will – to explain the place of legal order from the external perspective and to find out its basic norm. Seen from this angle, the combined theory of justice and social mechanics is at the same time the external theory of law.

THE THEORY OF JUSTICE

The theory of justice in its mainstream form was formulated by Aristotle, and although it had various elaborations or interpretations by subsequent thinkers, its basic tenets remained essentially the same. Such stability of the theory may point to its internal coherence and lack of better alternatives. Despite that, the most prevailing definition of justice belongs to the later authorship of the Roman lawyer Ulpian (Digests 1.1.10), who defined it as ‘the constant and perpetual will to give to everyone that to which he is entitled’ (*iustitia est constans et perpetua voluntas ius suum cuique tribuendi*). Here, entitlement apparently means rights, duties, or sanctions, but in overall such definition may seem too abstract to be practically applied.

Fortunately, Aristotle’s contribution to the theory lies within the specific types and the content of justice, which facilitates its further elaboration and application. Firstly, he distinguished between general and special justice. General justice is defined as lawfulness and is applied universally, whereas special justice is applied to particular cases. Secondly, he further distinguished

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1 The great movement of social physics of the seventeenth century, among chief exponents of which were Descartes, Hobbes, Spinoza, Leibniz, Grotius, Pufendorf, Malebranche, and Berkeley, imparted social expression to the Newtonian ideas of inertia, gravitation, equilibrium, and dynamics, attempted to create social mechanics founded on a mathematical method, and purported to perceive the type of mechanistic analogy in societal phenomena (see Huntington 2019: 407). In the field of modern sociology, Lester F. Ward, an influential American sociologist, seems to have been the first to develop, rather definitely and specifically, some of the implications of the terms ‘social physics’ and ‘social mechanics’. A quarter century after his *Dynamic Sociology* was published in 1883, and nearly a decade after he published *Pure Sociology*, two books appeared from European presses within the space of two years, which set forth, each in its own way, elaborations of these concepts. They were *Mecanique sociale* by Professor Spiru C. Haret, a Romanian scholar, and published in French in 1910, and *Apuntes sobre Mecanica Social* by Antonio Portuondo y Barcelo published in Spanish in 1912 (see House: 83). For the use of the term in contemporary sources, see, for example, Knowles 2001: 177–238; Pickles 2022: 59; Mittermaier 2020: 105; Aires de Sousa: 290.
special justice into justice in distribution and justice in transactions, which in contemporary perspective are called distributive justice and corrective justice, respectively (Weinrib 2002: 349–354). The former means just distribution of honours, wealth, or everything that is divisible according to the merit, whereas the latter means rectification of voluntary and involuntary transactions (roughly corresponding to contracts and torts) without taking personal qualities into account. Special justice requires equality but not of the same type: in distribution, it focuses on geometric equality (proportion) or intermediate between too much and too little; in rectification of transactions, it focuses on arithmetic (numerical) equality or intermediate between the loss by an injured person and the gain of the offender in the transaction, for having more than one's own share is called making a profit, and having less than what one had at the beginning is called suffering a loss. Rectification is provided by the judge, who is therefore the 'living embodiment of justice'. Doing justice is intermediate between doing injustice and suffering injustice, since doing injustice is having too much and suffering injustice is having too little. Justice is about an intermediate condition, whereas injustice is about the extremes. Thirdly, he proposed the concept of equity (Gr. epikeia, Lat. aequitas), which serves as a rectification of law insofar as the universality of law makes it deficient. This type of justice prevails over law only where it is defective (Aristotle 2000: 83–84).

Subsequent thinkers offered their elaborations or interpretations of the theory of justice. For instance, St Aquinas (1981: 1912, 1915, 1927–1929) commented and interpreted Aristotle's theory in the context of Christian theology, Kant advocated the retribution as a goal of criminal justice, Hume and Bentham tied justice to considerations of utility (Johnston 2011: 116–141, 158–159), and Hegel (2001: 159, 179) identified elements of procedural justice. Modern political philosophers used distributive justice to formulate their concept of social justice. Arguably the most influential of them is Rawls (1971: 53, 118–123), who formulated two principles of justice: first, that of equal basic liberties for all people, and second, arrangement of social and economic inequalities under conditions of fair equality of opportunity to the greatest benefit of the least advantaged. It is evident that his theory is an elaboration of Aristotle's concept of distributive justice as proportional equality, where differentiation is allowed on grounds of morally acceptable (in this case, socially sensitive) criteria. Nozick (2001: 113–115, 149–153, 230–231) criticised this approach by stating that distribution is just when it is based on lawful acquisition, thus closely aligning himself with the stance of private law.

However, the standard interpretation of Aristotle's theory fails to address the problem of transition of justice from distribution to rectification, which entails fundamental questions. It is not clear, for example, whether acquisition of goods is exclusively governed by distributive justice or only in part, whether the justice in rectification of transactions may restore person into the state of unjust distribution, and whether there is a space for other legitimate forces within the circle of distribution. These problems must be analysed from a broader social perspective.

**SOCIAL MECHANICS**

Mechanics is a branch of physics concerned with the motion of bodies under the action of forces (Goodstein 2020). It describes how objects move in terms of space and time (kinematics), the cause of the object's motion (dynamics), and deals with the conditions under which an object subjected to various forces is in equilibrium (statics) (Alrasheed 2019: 17). In his *Principia*, Newton reduced the basic principles of classical mechanics to three laws: (1) each body continues in its state of rest or of uniform motion in a straight line, unless it is compelled
to change that state by forces impressed upon it, (2) the change of motion of an object is proportional to the force impressed and is made in the direction of the straight line in which the force is impressed, and (3) to every action there is always opposed an equal reaction, or the mutual actions of two bodies upon each other are always equal and directed to contrary parts (Goodstein 2020).

Here, I will refer to the principles of mechanics applied to social processes as ‘social mechanics’, but in a broad philosophical sense – with focus on the organisation of the social order and without rigid constraints of the sociological vocabulary. Thus, for example, if we applied Newton’s laws to the social space, we may find three laws of social mechanics: (1) each social object continues in its state or direction unless it is affected by some social forces, (2) the change of motion of a social object is proportional to the social force impressed and is made in the direction of the straight line in which the social force is impressed, and (3) to every social action there is always opposed equal social reaction. We should find whether these laws of social mechanics can assist us in filling gaps in the mainstream version of the theory of justice.

JUSTICE IN SOCIAL MECHANICS
According to Aristotle (2000: 67–85), justice is the virtue in accord with which the just person is said to do what is just in accord with his decision, distributing good things and bad, both between himself and others and between others. Special justice functions in distribution of assets, honours, and every divisible object, whereas justice in rectification functions in voluntary and involuntary transactions. Equity functions in rectification of law, whereas general justice requires compliance with law. In the light of social mechanics, it becomes clear that justice is then a force which is focused on the responsive change of motion. The motion of who, though?

It is a major problem with the standard explanation of Aristotle’s theory of justice, which gives only an eclectic picture of the objects of justice and raises questions on the relation between them. Since the mere mention of distribution, transactions, law, and human behaviour is not satisfactory, it pushes us to search for a common denominator for the object of justice. Although Aristotle was silent on this point, in my opinion, the generalised object of justice is the social order, i.e., the rules of society and the rights of its members. Justice as a fundamental social force is acting upon the organisation of and compliance with the social order, which for the most part consists of law and legal rights (legal order), but also of religion, remaining moral values (besides justice), and customs. The foundational layer of the social order, which is critically important for the survival of organised society, is called public order (ordre public). Maintenance of the social order is embedded in the notion of general justice, which requires compliance with societal rules.

Justice, of course, is not the single force affecting the social order. Logically, the most obvious other force is its opposite, i.e., injustice, which also shapes the social order, but in a negative way. Aristotle (2000: 71, 76, 79) says that just is equal, while injustice is excess and deficiency. Hence, doing justice is intermediate between doing injustice and suffering injustice. An act of justice is the specific type of a just act that rectifies an act of injustice. For example, Soviet occupiers in the Baltic countries had nationalised property, which altered the social order in grave violation of justice and as such was not accepted and was thus gradually reversed by the restitution programme when these countries regained their independence. We may see that justice as described by Aristotle corresponds to the laws of classical mechanics, which assumes that if a body has a net force acting on it, it undergoes accelerated motion in accordance with
the second law. If there is no net force acting on a body, either because there are no forces at all or because all forces are precisely balanced by contrary forces, the body does not accelerate and may be said to be in equilibrium (Goodstein 2020). Considering that the idea of maintaining balance or equilibrium is the core idea of justice in law (Hart 2012: 159, 165; Rulings of 24 December 2008, 14 May 2015, Ruling of 19 September 2019 of the Constitutional Court of the Republic of Lithuania), justice acts as the social force directed to counterbalance the injustice and maintains or restores the equilibrium in the social order. However, as Aristotle wrote in his *Physics*, the intermediates are derived from the contraries; wherever a pair of contraries admits of an intermediate, motions to that intermediate must be held to be, in a sense, motions to one of the contraries or the other (Aristotle 1984: 188b21–188b26; 229b9–229b22). Therefore, justice itself is not an equilibrium: it is the force opposite to the injustice, which has disturbed the just state, an equilibrium (intermediate) in the social order. It follows that doing an act of justice (one contrary) where there is no act of injustice (another contrary) equally disturbs the equilibrium and leads to an unjust state. Hence, the just state requires either no contraries (justice and injustice) or a presence of them both at the same time.

If justice is the third law of social mechanics, the first law then apparently describes the social disorder or state before the regulation, such as the Hobbesian primordial State of Nature. The second law is the creation of the social order and its subsequent modification by various social forces. The social order is maintained by the State, which is the ultimate organisation of society, a source of order, and a provider of justice.

General justice requires compliance with the social order, including the law of State, which may be changed by legislative mechanisms according to the political will of a sovereign acting on behalf of a nation. Hence, political will expressing the public interest is another social force, which shapes the social order (more precisely, the upper layer of legal order – the law). However, the political will in lawmaking may not contravene the idea of justice, otherwise unjust law and political power will gradually lose their legitimacy in the eyes of society. The general public may not understand the vast body and intricacies of ordinary law, but as empirical evidence points out, it has the instinct of justice formed at primordial times and basically understands what is right and what is wrong (Gollwitzer et al. 2016: 62–70). That is why Aristotle’s idea of equity as a rectification of deficient law is inherently correct, and modern constitutional control of lawmaking is simply indispensable for the State to maintain its authority among citizens. On the other hand, the operation of justice also highly depends on law that serves as a formal yardstick to identify the extent of injustice done (breach of law or rights), which must be fully mitigated with the act of corrective justice. In the case of distributive justice, which leads to proportional equality (or simplistic inequality), law often serves as a criterion of differentiation and layering of persons.

However, arguably the biggest mystery in the mainstream theory of justice is the question of how social order is affected by free will and whether there is space for it. For example, a Marxist may say that free will has led to historic exploitation of weaker social classes and is severely restricted by the requirements of social justice, therefore social injustice must be rectified. It may also lead to the idea that the social order must always fully comply with the ideal of social justice. Therefore, rectification of injustice in a court cannot be limited to the facts of the case and should take historic prejudice into account or annul the transaction that turned out to be less beneficial than expected as distorted fair allocation. Although such reasoning may sound ideologically attractive, it is naively utopic, populistic, and completely wrong. Not only does it equate distributive justice with the corrective one (in fact, absorbing
and denying the latter as independent category), but also completely denies the idea of free will in distribution and voluntary transactions. According to Aristotle (2000: 73), corrective justice presupposes rectification of injustice without taking personal characteristics of parties into account; therefore, doing the opposite means denial of this concept. For instance, the court in a tort case (a typical situation of corrective justice) cannot redistribute wealth of the offender to the historically oppressed victim, since it can award only the amount corresponding to the loss suffered. Also, it is a logical absurdity to deny free will in voluntary transactions.

Finally, free will is firmly entrenched in Aristotle's theory of justice. First, acts of justice and injustice by themselves are manifestation of will. Whenever one does them unwillingly, one neither does justice nor injustice (Aristotle 2000: 79). Second, and the most important, is that since justice and injustice are reciprocal, one cannot suffer injustice at one's own will. Therefore, if in a transaction a person gives away more than he is entitled under just distribution at free will, it is not injustice and should not be rectified. As Aristotle explains in one of his puzzles (2000: 81), if someone gives away what is his own, as Homer says Glaucus gave 'gold for bronze, a hundred cows' worth for nine cows' worth' to Diomede, he does not suffer injustice, for it is up to him to give them, whereas suffering injustice is not up to him but requires someone to do him injustice. Clearly, then, suffering injustice is not voluntary (Aristotle 2000: 81). Aristotle concludes (2000: 81–82) that if A knowingly and willingly distributes more to B than to himself, since he suffers nothing against his own wish, he does not suffer injustice, at least not from his distribution, but, at most, is merely harmed. Thus, if acts of justice and injustice are voluntary, suffering injustice may only be involuntary, since one cannot do injustice to herself. And if one cannot do injustice to herself, she may dispose her share (entitled under rules of just distribution) at free will, and such disposal will not be rectified. Such reasoning creates an express shelter for the category of free will in the framework of justice.

The latter finding is of crucial importance for the whole picture of justice-based social mechanics. Recognition of free will to dispose one's share without invoking justice-based rectification means that free will is another social force that may legitimately alter the social order. More precisely, it alters the lower layer of the legal order that consists of rights and enables private redistribution, which is crucial for a free market economy. Since distributive justice is not violated by private redistribution (if done at free will), it means that from the perspective of justice, the altered social order is accepted as just and is further protected as such. Therefore, where private redistribution takes place after primary just distribution, that redistribution is the last protected state and if violated, should be restored by corrective justice to it and not to the state of primary distribution. It follows now that it is incorrect to equate a just state with fair primary distribution, because such 'historic justice' will violate actual justice, which protects the altered state of the social order, and, in fact, will lead to grave injustice. The concept of altered state of the social order not coinciding with primary (ideal) state of just distribution ipso per se proves the existence of a dynamic social order within the scheme of justice, not limited to simply distributive and corrective justice and law, which prevails in an orthodox legalistic analysis of justice.

As we have seen, justice leaves space for free will and, consequently, for personal freedom to redistribute shares in voluntary transactions. That freedom in a legal order is protected by the constitutional property right of the owner to dispose of the property and freedom of contract – the principles that are crucial for a market economy and enable satisfaction of a private interest. In order to efficiently shape a social order in a private redistribution, the legal power of a transaction should be that of law. That is why in private law, contracts have the status of
law (e.g., Art. 1134 of the French Code Civile, Art. 6.189 of the Lithuanian Civil Code). However, if justice seems to be an absolute value in a social ordering, the limitations of which *ipso per se* are illegitimate in the presence of injustice, that cannot be said about the other social forces – political will and personal freedom. Personal freedom by itself is a category antagonistic towards order since freedom implies no boundaries, whereas order implies boundaries. Ancient and modern history shows that some societies (mainly Western) may function well with broad personal freedom of their citizens, while some (mainly Eastern) are prone to it and may easily fall into chaos. The more mature and stable society is, the more freedom – a driver for economic efficiency and prosperity – it may accommodate. The less stable and self-efficient society is, the more it requires direct involvement of a public administration in micro-management of society to ensure basic functioning of the economy and maintenance of the social order. Therefore, every society has its own internal limits of the tolerance of freedom dictated by the culture, history, and mentality of its citizens. Those limits are normally reflected in law, including the limits on free disposition of property and freedom of contract. Only by respecting those limits we may find valid transactions capable of changing the social order, which means that the social order has internal limits on its alteration. It also means that personal freedom, although demanded by the general public, is a more restricted social force than justice but comparable to political will. Of course, there is also the lower threshold for a popular demand of freedom, which (remembering the French *liberté, égalité, fraternité*), if not respected, may become a perfect cause and a slogan for a social revolution. Therefore, freedom is a highly volatile social force, denial of which may give a fatal blow to the existing social order.

Now we are able to answer the questions raised earlier. In the theory of justice, there is, indeed, a space for other legitimate forces within the circle of distribution. Acquisition of goods is not exclusively governed by distributive justice, but also by free will subject to the requirements of corrective justice. Justice in rectification of transactions must restore a person into the last state of distribution, which may be altered by free will and not coincide with the ideal state of primary just distribution. Thus, justice may require restoration of the social order into a situation which in isolation would seem unjust distribution, and that is perfectly normal if one respects personal freedom.

In sum, societal relations, such as distribution and transactions, are governed by the social order positively shaped by external forces of social mechanics – justice, personal freedom and political will, and negatively by injustice. From them, we may elaborate derivative categories such as the market, human rights, public policy, civil service, and other crucial elements of contemporary society. The social order maintains stability and security in a society by protecting human rights and promoting solidarity as well as beneficial guidance on social activities. For instance, criminal law deters injustice in general, property law promotes security of investments, corporate law proposes a workable vehicle of doing business, and contract law is concerned with risk management. Maintenance of the social order is a core internal function and the *raison d'être* of the State (together with its external function of protection from invaders). Since legitimacy of the State depends directly on the social order and indirectly on justice, it must maintain the social order and provide justice in order to survive. That is why provision of justice is part of the public order of the State. Even more: being the absolute force in social mechanics and an underlying basis of law, justice – a fundamental third law of social mechanics – is the best candidate to fulfil the role of an external Grundnorm of a legal system. Having such importance, treating justice as equal to a bunch of other constitutional principles is a fast track to social tension and distrust in a State, a chronic disease of contemporary social orders.
CONCLUSIONS

By expounding his historically influential views on at first glance unrelated topics of mechanics and justice, Aristotle, the grandmaster of philosophy, left some clues for their interdisciplinary analysis. If after two millennia his ideas were finally defeated in the field of physics, it has never happened to his theory of justice. Isaac Newton, the conqueror of the former field, proposed three laws of mechanics, which, if applied to social relations, may be called Laws of Social Mechanics. Ironically, Newton’s third law applied to social relations resembles the essence of the theory of justice. It shows that justice is the social force guarding the equilibrium in the social order (just state) by neutralising the negative social force, injustice. Since justice and injustice are contraries, any presence of either of those categories without presence of the other is equally negative since it disturbs the just state – the equilibrium in the social order. The same may probably be said about political power and personal freedom, another pair of opposite social forces affecting the social order. Since justice, which is an absolute force of social ordering, creates a space for personal freedom, political efforts to negate that freedom by legal means may lead to a clash between law and justice and, as a result, make law illegitimate and subject to social destruction. Therefore, the legal system, being the core of the social order, must always follow guidelines of Justice, the Grundnorm of legal order.

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Raktažodžiai: teisingumo teorija, socialinė mechanika, socialinė tvarka, teisė, asmens laisvė, politinė valia