
The Dichotomy of Procedural and Distributive Justice in the Theory of Social Choice

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Abstract:

Purpose: The purpose of the article is to provide critical analysis regarding the application of distributive justice in the theory of social choice.

Design/Methodology/Approach: The research combines the elements of critical analysis and synthesis utilizing a rich scope of inter-disciplinary evidence.

Findings: Distributive justice serves as the dominant concept in economics, at the same time being hardly competitive with the principles of social sustainability.

Practical Implications: Social choice framework should incorporate "justice of procedure", relying more on the fairness of processes governing social resources distribution.

Originality/Value: The proposed paper re-discovers and examines the application of procedural justice in the field of social choice, while distributive justice remains the dominant principle in economics.

Keywords: Social choice, procedural justice, distributive justice.

JEL Codes: B15, D30.

Paper type: Research paper.

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1. Introduction

As Robbins (1938) discusses, there are two opposite views regarding the role of fairness in economics. While some economists "think that propositions based upon the assumption of equality are essentially part of economic science", others (including Robbins, 1938, pp. 640-649) believe that normative considerations are justified by moral reasoning, not being the essential part of economic theory. Evidently, little has changed since then; economics, despite being a science of social exchange, has little in common with society itself. Economics science is believed to be free of ideology, ethics, and other normative sentiments, which corresponds to the engineering approach to economics (as specified by Sen, 1987). As demonstrated in this paper, one can hardly disdain entirely moral reasoning when discussing economics. Therefore, arguably, the orthodox economics framework cannot be accused of ignoring ethical considerations. Nevertheless, it can and should be accused of the impotence to incorporate the sentiments organically. In fact, what we are dealing with nowadays seems to be a Frankensteinish combination of normative and positive theories rather than a holistic and cohesive approach.

The social choice theory would be argued to be a territory where the lack of well-established moral normative ground is apparently obvious (and apparently dangerous, as well). Being described as a theory that "was intended to provide a rational framework for decisions that [...] have to be made collectively" (Arrow, 1997, p. 3), the theory of social choice might take two radically different forms, depending on the adopted justice and rationality paradigm, as discussed in this paper.

The former is grounded in what Sen (1997) describes as "classes of information other than preferences, for example, historically established rules, customs or processes, or preference-independent formulations of procedural rights" (p. 16). This implies that the social choice might be shaped through the means of "social architecture" and excludes the notion of the pre-defined social outcome desired. From this perspective, the attribution of procedural justice remains the only viable normative concept of social justice. It is crucial to underline that social choice mechanisms grounded in the idea of procedural fairness are not homogenous. While Rawls (1999) is a proponent for the rigorous rules of social resources allocation, Hayek (1945) argues that society requires solely basic rules to function properly. Similarly, V. Smith (2010) defends the role of collective intelligence, arguing that the development of well-designed structures might be possible in the process of multiple and iterated interactions between the agents with minimum central authorities' intervention.

In contrast to the idea described above, the modern theory of social choice is, to a great extent, a product of post-enlightenment ideas (Sen, 1997) or Cartesian rationality (Hayek, 1945). The critical feature of Cartesian rationality is proclaiming the superiority of Reason in all the fields of social life when the notion of Reason is extraordinarily close or even identical to the theory of orthodox economic rationality. Both the principles recognize optimization (i.e., the comprehended process of selecting the optimal option out of all the available options under the perfect

information condition – Simon, 1996) as the only appropriate decision-making tool. In practice, it implies the false belief that proper decisions can be solely the results of the social planner's analysis, computations, and reinforcement (Hayek, 1945). Arrow's (1951) seminal work has decisively legitimized the dominance of Cartesian principles in the field of social choice theory, posing aggregate social utility maximization as the only social planner's objective. Being radically consequential, mainstream social policy theory recognizes solely distributive justice.

In the context of social choice, the principle of procedural justice is believed to be the only valid criterion. As argued in the present paper, relying on the principle of distributive entails the fictitious barrier between economics and ethics, when the latter is presumed to define the desired social outcome. The former is expected to construe the mechanism of achieving it. In contrast, the device of procedural justice serves as the natural and crucial component of the economic system. Moreover, procedural justice takes less cost to reinforce, thus, arguably, being superior in the long-run perspective.

The discussion is structured as follows. The first section is devoted to the distributive vs. procedural justice dichotomy. The second section discusses the orthodox social choice framework, including formal assumptions, conditions, and the most common social choice mechanism based on the consequentialist distributive justice together with their normative ethical ground. The third section is devoted to the principle of procedural justice. The fourth section juxtaposes social choice mechanisms based on procedural and distributive justice. The fifth section explains why the present discussion should never be considered as the argument in favour of the neoliberal framework. The last section concludes.

2. On the Two Forms of Justice

According to Frankena (1962), the core of "justice, whether social or not", is the allocation of "persons-duties, goods, offices, opportunities, penalties, punishments, privileges, roles, status, and so on" (p. 9). As the author reinforces, the notion of "comparative allotment" is particularly important for distributive justice; however, as discussed further, the mechanism of procedural justice might also address agents' conditions.

With a reasonable degree of simplification and in the context of the present discussion, distributive justice might be understood as the justice of outcome when the judgment on fairness is made based on the policy outcome. In contrast, the attribution of procedural justice is shaped by the nature of mechanisms and principles serving as the basis for social choice design (based on Vermunt and Törnblom, 1996). To avoid excessive generalization, it is essential to underline that the dichotomy between procedural and distributive justice is not a uniform idea. For instance, Thibaut and Walker (1978) proclaim "the appointment of outcomes" as the primary objective of the legal procedure; therefore, the procedure is considered to be appropriate if it facilitates the occurrence of the just distribution. From the perspective

described above, procedural justice serves as a supplementary mechanism for distributive justice. Nevertheless, the division between the distributional and procedural justice would be argued to be crucial applicably to the theory of social choice. As discussed further in this paper, the adopted attribution of justice defines the entire theoretical universe of the social choice, deciding on whether it refers to a constrained optimization problem or appears as both a product of and a mechanism enabling social interaction.

The very notion of procedural justice seems to be like the ideas of self-sustaining social systems and the function of social norms; in a sense, all these concepts are rooted in what Hayek (1945) refers to as the English philosophical tradition. A. Smith contributed countless valuable ideas, yet some of them are radically inconsistent (Viner, 1991). In particular, talking about justice, A. Smith (1759) analyzes justice as the "negative virtue", the essence of which lies in the obligation not to hurt others. In contrast, "beneficence" is recognized as the "positive virtue" entailing to make good for others. According to A. Smith (1759), the failure to fulfill the negative virtue criterion can be treated as a violation of social order and requires central authorities' intervention, while positive virtues, although being desirable, are not and should not be enforceable.

These premises salute the atomistic social order when individualistic agents are free to pursue their interests in any way provided that it does not violate the fundamental rights of other individuals. Correspondingly, A. Smith's (1776) views on the nature of justice provide a perfect ethical ground for the ideas of capitalism (Ossar, 1991). At the same time, the distinguishable feature of A. Smith's philosophy was the rejection of the teleological nature of moral reasoning (among other Scottish enlightenment philosophers, saluted by Hume – see Matson *et al.*, 2019) so natural for the modern orthodox school of economics. Instead, A. Smith "considered our actions in their origin rather than in their outcome" (Alexander, 1968, p. 249). Moreover, as he affirmed himself, "it is not the view of this utility or hurtfulness which is either the first or principal source of our approbation or disapprobation" (A. Smith, 1759, p. 271). In other words, A. Smith rejected the idea of goodness as a utility, thus denying the notion of radical consequentialism so favored under the orthodox economic framework.

At the same time, A. Smith's beliefs are not in line with the deontological systems of ethics when the set of rules of conduct is separated from the context. Instead, as Smith and Wilson (2019) underline, he analyzed the greatest goodness and social order from the perspective of "social foundations of morality" and the role of sentiments. Although the modern reader is likely to associate sentiments with feelings, emotions, and similar unconscious and unsupervised cognitive processes, A. Smith understood this notion as the combination of "moral feeling and moral thinking" (Smith and Wilson, 2019, p. 21). According to A. Smith, the path of social interaction is governed by sentiments, which, in turn, are shaped by the path of social interaction; as Smith and Wilson (2019) conclude, "[the world described by A. Smith] is the world that first and originally defines the content and the meaning of sociability,

that defines the individual within their social context" (p. 41). The power of the socially defined rules, however, is not expected to correspond to the individuals' hedonistic account: "other-regarding behaviour does not require other-regarding utility" (Smith, 2010, p. 21).

It would be argued, therefore, that in order to discuss any system of justice different from distributive justice, one should abandon any element of teleological reasoning in the context of procedural justice. In line with A. Smith's ideas, the procedural approach to normative reasoning would be treated as a system of beliefs and social behaviour, which is free of final-end account of any form.

3. The Orthodox Theory of Social Choice and Ambiguity of Distributive Justice

3.1 Formal Assumptions and Criticism

The modern mainstream theory of social choice is, to a great extent, based on principles formulated by Arrow (1951). Arrow (1951) replaced prior Bergson's approach based on tastes with an individual values-based approach (pp. 23-24), arguing that such arrangement is more universal in a sense it can be applied to any community without "any prior knowledge of the tastes of individuals" (p. 24). Accordingly, the following definition of the SWF is proposed: "*By a social welfare function will be meant a process of rule with, for each set of individual orderings R_1, \dots, R_n for alternative social states (one ordering per each individual), states a corresponding social ordering for alternative social states, R* " (Arrow, 1951, p. 23).

As reinforced by the first condition defined by Arrow (1951), the universal SWF exists only for the admissible set of individual orderings when admissibility (among other properties) reflects the uniformity of the values analyzed. As implied by this condition (and in contrast to Bergson's approach), personal consumption is not treated as the only decision-making criterion; agents are allowed to choose options decreasing their effective consumption if this is in line with their values.

However, the "interpretational ambiguity of preferences" (as defined by Sen, 1997) remains a potential concern. Providing the meaningful interpretation of individual preferences might be a complicated task: economics theorists use a variety of relevant terms to assess the problem of social choice, including *mental satisfaction*, *desires*, *choices*, and *values* (Sen, 1997, p. 17). They are commonly assumed to be perfectly compatible, while pure intuition suggests they are incongruent. This ambiguity becomes even more apparent once one changes the perspective of choice analysis. As Sen (1997) states, when making a judgment about agents' preferences based on their interests, there is always a threat of misinterpretation of the actual agents' motivation. As Harsanyi (1953) discusses, when a deprived agent votes for income redistribution, one can never tell whether this decision arises from the "selfish" desire to improve own position or from genuine political beliefs.

Similarly, as Stark *et al.* (2014) discuss, Rawlsian and utilitarian social planners might make identical decisions provided that the latter demonstrates the extreme degree of risk-aversion. Although Sen (1997) indicates that meta-rankings (i.e., hierarchical structures of preference-type sentiments, for instance, tastes being inferior to values) might potentially resolve the problem, there seems to be no even gradual evolution in this field.

The additional relevant piece of criticism arises from neglecting the process of preferences/ values formation. According to Sen (1997), the process of preference development and transformation stays beyond the agenda of modern mainstream social choice theory (Berg and Gigerenzer, 2010, make a similar observation regarding the neoclassical school of economic thought in general). The preferences are commonly perceived to be built-in static mechanisms developed beyond the social context, while "analyses of dialogues and exchanges, and of their impact on individual preferences can indeed be important for social choice theory" (Sen, 1997, p. 23). Unfortunately, to the best authors' knowledge, there were no attempts to investigate the problem of social preferences formation.

The positive association of social and individual values condition requires aggregate social ordering to reflect the changes in individual orderings, or, more formally: "*Let R_1, \dots, R_n and R'_1, \dots, R'_n be two sets of individual ordering relations, R and R' the corresponding social orderings, and P and P' the corresponding social preferences relations. Suppose that for each i the two individual ordering relations are connected in the following ways: for x' and y' distinct from a given alternative x , $x' R'_i y'$ if and only if $x' R_i y'$; for all y' , $x R_i y'$ implies $x R_i y'$; for all y' , $x P_i y'$ implies $x P'_i y'$. Then, if $x P y$, $x P' y$ " (Arrow, 1951, p. 26).*

The third condition reflects the independence of irrelevant alternatives: " *R_1, \dots, R_n and R'_1, \dots, R'_n be two sets of individual orderings and the let $C(S)$ and $C'(S)$ be the corresponding social choice functions. If, for all individuals i and all x and y in a given environment S , $x R_i y$ if and only if $x R'_i y$, then $C(S)$ and $C'(S)$ are the same" (Arrow, 1951, p. 27).*

In simpler words, it entails that individual choice made of the set of alternatives S should be independent of the alternatives outside the aforementioned set. In practice, it means the inappropriateness of the rank-order voting procedure for defining the social choice due to the outcome ambiguity.

The SWF is considered to be imposed if there is at least one pair of alternatives x and y such that the society will never prefer x over y , regardless of the individual values. In other words, there is at least one possible alternative, which society would never choose (possibly, because of social and ethical norms), even if all the agents constituting the society would unanimously vote for it. Interestingly, Arrow's (1951) citizens' sovereignty condition (SWF not to be imposed) is entirely based on the normative attribution of a desirable social order since he justifies the condition

mentioned above, stating that "we certainly wish all choices to be possible if unanimously desired by the group" (Arrow, 1951, p. 29). Citizens' sovereignty condition is also referred to as weak Pareto-efficiency condition (i.e., not all the agents are strictly better-off as the result of social choice).

Sen (1997) criticizes citizens' sovereignty condition, arguing under the orthodox theory of social choice, utility serves as the only basis for social choice assessment (even if the agents' utility is associated with the broad concept of values rather than purely hedonistic consumption considerations). This implies that concerns of liberty and justice are paid minor attention, serving mainly as additions to the main body of social choice theory. In reality, however, the allocation of social resources is governed by principles beyond the broadly defined individual preferences (Sen, 1997, referring to Scanlon, 1975). Scanlon (1975) argues that aggregate utility maximization serves an inoperative principle of social choice, building his argument on the subjective criterion invalidity. In the context of the social resources' distribution/retribution processes, subjective criterion implies that individual preferences and tastes serve as the basis for decision-making. In contrast, the objective criterion-guided social planner would consider primarily agents' material conditions.

The subjective criterion, being the primary mechanism in the neoclassical social policy, is practically incompatible with the uniform principles of moral reasoning. For instance, the equal outcome under the subjective criterion entails that the same level of utility/satisfaction characterizes all the agents. A disabled agent might require additional resources to afford the same pleasures the rest of the agents enjoy (such as an ability to communicate, the ability to move, etc.). Accordingly, to achieve the desirable equal utility outcome, social resources would be transferred from the healthy agents to disabled agents. As Scanlon (1975) reinforces, this pattern of resource allocation seems to be intuitively right.

However, consider another case when an agent demands more resources in comparison with the rest of society due to the apparently classy tastes. Following the same principle of equal utility, the aforementioned agent should get an opportunity to satisfy her expensive tastes at the cost of society, which does not seem to be a uniformly accepted outcome. Correspondingly (if we decide to stick to the original Arrow's framework and avoid any interpersonal utility comparison), if a community votes for financing amusement at the expense of healthcare services, formulating policy advice based on this decision feels to be gravely wrong according to the objective criterion, the latter option is more important. In other words, any decision regarding social resources distribution cannot be made with no inquiry regarding why a particular commodity is essential for the agents requiring it. Analogously, the social choice cannot be made outside the importance and urgency contexts. It is possible, theoretically, for all the agents to keep the views, beliefs, and values consistent with the considerations of urgency. Nevertheless, there are no reasons to believe that the situation described above is uniform.

Therefore, as Scanlon (1975) discusses, elaborating the objective criterion, most likely, is incompatible with the principles of consensus. Alternatively, it violates Arrow's (1951) citizens' sovereignty condition.

Proceeding to the last SWF condition defined by Arrow (1951), dictatorship is a situation in which social preferences perfectly reflect the dictator's preferences. If the dictator chooses x over y , then the society will also do so; if the dictator is indifferent between two alternatives, then he will decide to whom to delegate the choice. Accordingly, the non-dictatorship condition states that SWF is non-dictatorial.

The famous General Possibility Theorem (GPT, also known as Impossibility Theorem) states that if the number of available options exceeds two and there are no restrictions regarding how agents order them, any SWF satisfying positive association of social and individual values and independence of irrelevant alternatives condition is either imposed or dictatorial. Provided that the conditions of individual preferences admissibility and independence of irrelevant alternatives were imposed to avert interpersonal utility comparison, and assuming the rest of the conditions are met, the GPT entails that no SWF is possible without interpersonal utility comparison or IUC (see Fleurbaey and Hammond, 2004, pp. 1189-1991).

Moreover, as Hammond (1991) reinforces, even the dictator's choice "requires interpersonal comparisons" (p. 207). The objections against the procedure of IUC arise both from purely pragmatic considerations and its doubtful ethical ground. As Myerson (1985) argues, "there is no decision-theoretic meaning for a statement such as *a movie gives me more utility than an opera gives you*² because neither of us could ever be forced to choose between being me at a movie and you at an opera" (pp. 238-239; see also Harshaniy, 1977; List, 2003). The ethical vagueness of the IUC concept arises from the questionable proposition that some individuals should have an advantage over others due to the nature of their preferences. Scanlon's (1975) example about transferring resources to the disabled agent vs. transferring resources to the agent with expensive tastes serves as a perfect illustration to this point. All in all, Pareto's (1971, p. 172) claim against the notions of cardinal utility and IUC was to a great extent, driven by denying the normative concepts in economics since invoking them might be troublesome for economics as purely positivist science (as Pareto desired to see it).

However, as Blackorby (1990) reinforces, "our choice is between making interpersonal comparisons of utility or in having little or nothing to say" (p. 749). Abandoning the notion of IUC leaves little space for non-trivial (i.e., going beyond the concept of Pareto efficiency) policy advice, which, understandably, motivated modern welfare economics to relax no IUC assumption (Hammond, 1991; Johansson-Stenman, 1998). Interestingly, the attempt to treat the agents fairly is related to the procedure of social resources distribution, thus coming from the universe of procedural justice. The inconsistency between the IUC and the orthodox social choice

² *Italics added.*

framework illustrates how the latter is not compatible with the notion of procedural justice.

Besides the lines of criticism already discussed, overlooking the role of social arrangements and procedures (as identified by Sen, 1997) would be argued to be a central and underlying fallacy of the mainstream social choice theory. The optimization logic ingrained in the orthodox social choice theory is, by default, strongly consequential. This type of thinking implies that conventional economics assesses mostly the final states of social interaction, treating the mechanisms through which these states are achieved as secondary constraints. In contrast, the procedural rationality (as defined by Simon, 1996) approach saluted by Hayek (1945), V. Smith (2010), and the range of non-orthodox theorists mentioned by Sen (1997), concentrates on defining robust and sustainable strategies rather than on the desirable outcomes. As Sen (1997) suggests, determining a socially optimal outcome might not be required, as long as public authorities protect and reinforce individual rights and freedoms.

Similarly, Sen (2009) questions the validity of the optimization social policy approach, arguing for the "comparative enhancements of justice (rather than trying to identify perfectly just arrangements)" (p. 410). The latter statement, nevertheless, does not necessarily imply that social outcome resulting from the wise social architecture is optimal (i.e., social utility-maximizing). However, treating social choice from the perspective described above would allow avoiding the controversies associated with relying on the justice-as-outcome principle.

The orthodox school of economics, without a doubt, relies on the strongly consequentialist way of thinking when achieving the optimal state is the primary objective of the social planner. Subsequently, justice is associated with the desired outcome rather than the mechanism of achieving a satisfying social outcome (in other words, neoclassical social planner relies solely on distributive justice principles).

3.2 Overview of the Approaches towards Individual Preferences Aggregation

Justice of outcome is the critical normative constraint in the theory of social choice. Naturally, the method of individual preferences aggregation is subject to the perception of what is just. This section presents a brief overview of the most common SWFs, together with their normative ethical ground.

3.3 Benthamite (Utilitarian) Social Planner

It would be argued that among the variety of normative theories, utilitarianism is the most appealing to mainstream economics. The fundamental principle of the utilitarian philosophy is proclaiming utility as the only basis for normative judgments when the utility is understood as "*...property in any object, whereby it tends to produce benefit, advantage, pleasure, good, or happiness, (all this in the present case comes to the same thing) or (what comes again to the same thing) to prevent the*

happening of mischief, pain, evil, or unhappiness to the party whose interest is considered" (Bentham, 2000, pp. 14-15).

The additional distinguishable feature of utilitarianism is a reductionist view of society. In simple words, any social system is nothing more than the sum of individuals: *"The interest of the community is one of the most general expressions that can occur in the phraseology of morals: no wonder that the meaning of it is often lost. When it has a meaning, it is this. The community is a fictitious body, composed of the individual persons who are considered as constituting as it were its members. The interest of the community then is, what is it? — the sum of the interests of the several members who compose it"* (Bentham, 2000, p. 15).

The principles mentioned above, combined with the belief that one can assign a numerical value to individual happiness, imply the premise that social utility should be assessed as an algebraic sum of individual utilities. As defined by Stark *et al.* (2014, p. 442):

$$SWF_U(x_1, \dots, x_n) = \sum_{i=1}^n f(x_i)$$

where SWF_U stands for the Utilitarian SWF of the society constituted by n individuals.

Interestingly to mention, it seems that Mill (2001), a famous theorist and advocate of utilitarianism, appears to be aware of the vagueness of the greatest happiness principle as the only social choice criterion. As Harrison (1983) notices, there is a noticeable difference between Bentham's and Mill's notions of utilitarianism since the latter incorporates the idea about the quality of pleasures. From Mill's (2011) perspective, there is an objectively defined and intuitive hierarchy, where higher-order pleasures are juxtaposed to "swinish" pleasures.

Based on what Crisp (1997) discusses, the aforementioned hierarchy cannot be transformed into the well-behaving set of orderings since some finite number of higher-order pleasures is strictly preferred over the infinite number of lower-order pleasures. It is not entirely clear whether this implication should be attributed to a purely normative nature or should serve as the objective truth about agents' preferences. Regardless of that, Mill's utilitarian social planner would never prefer any of the inferior pleasures to the higher-order pleasures, which goodness and importance is undoubtful.

Mill's condition, to the best author's knowledge, is ignored by the mainstream formal economic framework. Interestingly, introducing the aforementioned condition to the utilitarian SWF would imply that social choice fulfills the subjective criterion, at the same time (at least to some extent) addressing the objective criterion defined by Scanlon (1975).

3.4 Rawlsian (Egalitarian) Social Planner

Criticizing the ideas of "classical utilitarianism", Rawls (1971) proclaimed the "public conception of justice as constituting the fundamental charter of a well-ordered human association" (p. 5). Rawls (1971) defines the circumstances for justice as "the normal conditions under which human cooperation is both possible and necessary" (p. 109). In society, the identity of interests takes the form of a shared belief in the advantages of social cooperation and social exchange. The conflict of interests might arise from the natural disagreement on how social resources should be redistributed accompanied by "shortcomings of knowledge, thought, and judgment" (p. 110). The unquestionable goodness and of social cooperation and ration behind it, together with the limited agents' ability to establish such collaboration, imply the need for the uniformly defined principles of justice.

According to Rawls, there is no opportunity for establishing the commonly respected principle of justice based on the aggregation of individual values. In simple words, our perception of justice is always subject to our social status and other circumstances. Therefore, the only legitimate source of social justice is the justice-as-fairness principle. To be unbiased by their status and other attributes, the agents must choose the pattern of social resources distribution without any prior knowledge regarding their social ranking after the choice is made. In other words, the decisions are to be made under the veil of ignorance, according to Rawls (1971), or, using Harsanyi's (1955) terminology, when the impersonality condition is met. In these circumstances, the utility of the society is measured based on the most deprived agent's utility:

$$SWF_R(x_1, \dots, x_n) = \min\{f(x_1), \dots, f(x_n)\}$$

where SWF_R stands for the Rawlsian (egalitarian) SWF for the society constituted by n individuals (based on Stark *et al.*, 2014, p. 440). Based on what is discussed above, the task of the social planner is to maximize the most disadvantaged member's well-being. Interestingly, Rawls's (1971) assumption about the inevitability of perfectly egalitarian choice under the veil of ignorance does not coincide with the Harsanyi's (1955) conclusions. For Harsanyi (1955), agents who do not know their social position after the policy is introduced are Bayesian-rational, assigning equal probabilities to all the possible outcomes. Correspondingly, under impersonality condition, they maximized their expected utility constrained to the aforementioned probabilities, and the outcome depends on the character of their risk preferences. From the radical utilitarianism perspective, the egalitarian choice might occur under the condition of absolute risk-aversion (Stark *et al.*, 2014).

There is no consistent evidence regarding whether the distribution proposed by Rawls (1971) fulfills the citizen's sovereignty criterium. On the one hand, the premise that all the individuals prefer a perfectly egalitarian outcome under the veil of ignorance is treated as the objective truth under the Rawlsian framework; hence, "the requirement of unanimity is not out of place, and the fact that it can be satisfied is of

great importance. It enables us to say of the preferred conception of justice that it represents a genuine reconciliation of interests" (Rawls, 1971, p. 122). If one accepts the aforementioned premise, there is indeed no contradiction between the Rawlsian distribution and the SWF conditions specified by Arrow (1951). However, it seems to be the same ambiguously quasi-positive notion as Mill's (2001) hierarchy of pleasures: although Rawls' (1971) argument legitimizes his ideas in the eyes of the democratic social planner, there are no reasons to rely on it in the absence of relevant evidence.

3.5 Nash Social Planner

In his famous bargaining problem, Nash (1950) proved that if two participants are perfectly rational and have equivalent bargaining skills, the only mutually acceptable (i.e., fair) outcome occurs when they derive the identical utility from the bargain (p. 159). The solution to the aforementioned problem takes an extremely simple form, if "common medium of exchange" exists. Under this condition, accompanied by the assumption about the utility functions linearity, the set of points representing possible outcomes takes the form of an isosceles right triangle, implying the perfect equality of outcomes for all the players. Applying the proposition discussed above in the field of social choice theory implies that in equilibrium, individual preferences should be aggregated according to the following rule:

$$SWF_{Nash}(x_1, \dots, x_n) = \prod_{i=1}^n f(x_i)$$

where SWF_{Nash} stands for the Nash SWF of the society constituted by n individuals (based on Kaneko and Nakamura, 1979, p. 427). The pure intuition suggests that social utility maximization would require the equalization of the agents' well-being. With some degree of approximation, one can say that the hypothetical Nash social planner perceives justice as the equality of outcomes.

3.6 Nietzschean (Elitarian) Social Planner

It would be argued that among the variety of normative approaches towards social distribution, elitarian social planning has the most questionable moral basis. Both French post-enlightenment and English liberal philosophers, regardless of their disagreement on nature and mechanism of social and ethical norms, celebrate their existence and recognize their role in social exchange. Nietzschean philosophy, in contrast, implies "morality [being] attacked as [...] the most important of a variety of social and cultural forces posing obstacles to human flourishing" (Leiter, 1997, p. 252).

Subsequently, the standard criteria for decision-making, including happiness vs. suffering, altruism vs. self-love, and equality vs. inequality (Leiter, 1997, p. 267), are beyond Nietzsche's system of beliefs. The law of nature (and, subsequently, the

principle of goodness) governs that the strongest and the most empowered one deserves everything. No surprise, such a philosophy implies a perfectly "anti-egalitarian" (Miyasaki, 2013) distribution of social resources:

$$SWF_{Nietzschean}(x_1, \dots, x_n) = \max\{f(x_1), \dots, f(x_n)\}$$

where $SWF_{Nietzschean}$ stands for the Nietzschean SWF of the society constituted by n individuals (based on Petersen, 2004, pp. 27-28).

4. Social Choice as a Product of "Social Architecture": The Role of Procedural Justice

4.1 Social sustainability and the role of procedural rationality

The neoclassical framework recognizes the single principle of rational action, namely, substantive rationality, using Simon's (1996) terminology. The notion of substantive (or constructivist) rationality is grounded in the principle of optimization or adjusting the control variables to the exogenously defined constraints in the way optimizing the variable of interest (for instance, aggregate social welfare). In simpler words, optimizing (and rational in the substantive sense) agents select the best outcome out of the space of possible outcomes, adjusting their actions accordingly. The alternative rationality paradigm discussed by Simon (1996) is referred to as procedural rationality. Unlike substantive rationality, procedural rationality has nothing to do with seeking optimal options. In contrast, its essence lies in the ability to select appropriate strategies, communicate with the external world effectively, and make decisions, which are just "good enough".

Relying on Simon's (1996) framework, Smith (2010) introduces the notion of ecological rationality. With a reasonable degree of simplification, ecological rationality might be described as procedural rationality revealed in the social context. Ecologically rational agents are characterized by the ability to interact with others effectively, which corresponds to the skills of communication, negotiation, ability to absorb and interpret the essential pieces of information and adopt the appropriate behavioral patterns. Ecological rationality is a direct descendant of the sociability ideas defended by A. Smith.

As Smith (2003) and Hayek (1945) argue, social arrangements produced by means of collective intelligence are more sustainable in comparison to the public choices computed through the optimization strategy. Rawls (1971) proposes a criterion of stability for evaluating the systems of normative reasoning: the less third parties' intervention and reinforcement the ethical system requires, the more stable (and thus, functional) it is. The same criterion might be applied to the systems of social governance, and from this perspective, seeing society as the dynamic, holistic, and instantly transforming entity seems to be more promising than the static optimization approach utilized by the orthodox neoclassical framework.

5. On the Functionality of Distributive Justice and Procedural Justice Principles

Consider the following thought experiment as an example. In the Wild West, there are two newly established towns. In the absence of public authorities, the inhabitants have to decide how their social space is going to be organized. In the first city, the dwellers (perhaps, true admirers of the rational social order proclaimed by the French philosophers) decide to appoint the arbitrator, whose main task is to ensure that each decision is optimal for the society. In the absence of strictly defined rules (since pure teleological intuition suggests that any universal law reduces the flexibility of the optimization approach), the arbitrator's task is to choose the optimal option out of the infinite universe of possible choices each time, when any of the exogenous constraints' changes. To do so, the arbitrator should possess a device measuring each agent's utility objectively (as discussed before, to avoid dictatorial and imposed social choice, one should be able to assess and compare utilities of the different individuals).

Finally, the citizens have no opportunity to communicate with each other on any of the policies designed and introduced by the arbitrator since it might affect their original values/preferences/choices. The judge might have some concerns regarding the decisions he makes; all in all, there are no guarantees that all the inhabitants are virtuous and emphatic individuals. The anonymous decisions might be objectively harming the community. What shall the arbitrator do? In the absence of dictatorship, radical cardinal utilitarianism suggests that goodness is whatever people decide to be good. Except for the questionable Mill's (2001) premise, there are no reasons to think that the criteria of subjective and objective goodness coincide. Probably, the arbitrator might turn a benevolent dictator for the sake of promoting justice. So, which principle of distributive justice should the arbitrator choose?

In the other town, the inhabitants choose a different organizational model; instead of the arbitrator, they hire a sheriff. The sheriff, being neither perfectly wise neither possessing all the supernatural abilities characterizing the arbitrator, introduces several fundamental rules, and violating results in immediate punishment, regardless of the de-facto consequences of these acts. Unlike the previously discussed community, the agents are able to interact and communicate directly. They change and adjust their perception of the complex world, correspondingly transforming their preferences. Under the absence of strict regulation, individuals are free to create their own rules, regulations, and arrangements, supervise their compliance, and punish for deviating from the aforementioned rules (as long as such punishment does not breach the laws established by the sheriff). If previously established arrangements do not work, the inhabitants are free to change them or introduce new regulations. In such circumstances, procedural justice dictates that the process of social exchange takes place in the legal space. Although the resulting social outcome is most likely to be different from the optimal outcome (whatever it is), the inhabitants, together with the sheriff, do not need to define and introduce any supplementary distributive justice principles.

Any principle of distributive justice (including Rawls' distribution, despite his critique towards consequentialism of conventional social policy) has some normative ground. Making a choice between the appropriate pattern of distribution is challenging since i) any normative system is hard to criticize within its universe; ii) criticizing the normative system from the perspective of another system might be fruitful yet inconclusive. For instance, it is easy to see the inferiority of utilitarianism from the Rawlsian perspective and vice versa. Again, it tells us very little regarding the objective value of the aforementioned principles.

Naturally, one would require an unbiased criterion in order to identify the most suitable principle of the social choice formulation. Scanlon's (1975) objective criterion suggests the social resources distribution process should be governed by the objective agents' conditions instead of their subjective utility associated with these conditions. Taking a more general perspective, the objective criterion should be based on the considerations of importance and unquestionable goodness. It would be argued, therefore, that from the standpoint of social choice, the community's survival, development, and long-run sustainability should be treated as the ultimate criteria. Accepting this idea, one should also agree that the normative principle entailing this goal is located outside the world of distributive justice.

As discussed above, the very principle of social sustainability and social dynamics is incompatible with the neoclassical optimization approach. In other words, static maximization of the social utility has little in common with promotion and reinforcement of the social exchange patterns facilitating societies' survival and development in the long-run perspective. Straightforwardly, promoting the defensible social sustainability objective would require leaving the ideal space of the neoclassical social choice framework and approaching the principles of social governance celebrated by A. Smith, Hayek (1945), and V. Smith (2010). In the world of ecological rationality and collective intelligence, there is no room for radical consequentialism.

Instead of attempting to achieve the perfect social outcome, social planners strive to design such formal rules, which would regulate the fundamental fields of social exchange, at the same time leaving sufficient flexibility for the informal social arrangements. Both formal and informal regulations are subject to evolutionary selection: if the adopted arrangements turn out to be "not good enough" (using Simon's, 1996, terminology), they disappear as the result of new arrangements (alternatively, they disappear together with the societies failing to establish better rules).

6. Formulating the Sustainable Principle of Procedural Justice

Based on the already defended assertion, ecological rationality is the only paradigm consistent with the objective criterion of social sustainability. At the same time, the principle of procedural justice is the only method of moral reasoning consistent with the notion of ecological/procedural rationality. However, the superiority of

procedural justice over distributive justice does not imply that any procedural justice principle is appropriate in the sense of being in line with the objective sustainability criterion, as discussed further.

For instance, one might wonder whether Rawlsian distribution should be assigned the status of the appropriate normative principle. Rawlsian approach to social choice proclaims the superiority of the distribution principle over the final result and attributes primary importance to the normative ethical basis of the social resources distribution, in contrast to the utilitarian approach. For Rawls (1971), distributive justice takes the form of "pure procedural justice", when the outcome is "whatever it happens to be". In other words, Rawls (1971) is not concerned with the final social outcome as long as the resources are distributed in line with his prescription; subsequently, the Rawlsian approach is frequently presented as an example of procedural justice (Schaefer, 2006). Logically, to be classified as the appropriate procedural justice principle, Rawlsian precept should be consistent with the principles of ecological rationality (as defined by Smith, 2010), or, more specifically, with the idea of true individualism described by Hayek (1945). Evidently, it is not.

"Spontaneous social structures" (as referred to by Hayek, 1945), or social norms and institutions, play the principal role in regulating social exchange. In line with Smith's (2010) convention, the very mechanism of social evolution should be attributed to the informal institutional environment flexibility. Based on Hayek's (1945) argumentation line, "false rational individualism" (i.e., the notion of individualism compatible with the orthodox social utility optimization principle), in contrast to the "true individualism" (i.e., the notion of individualism consistent with the ideas of A. Smith, 2002, and the modern ecological rationality framework, correspondingly), causes a devastating effect on the society.

The aforementioned adverse effect arises from the excessively restrictive formal institutional environment inevitable in the world of explicit planning and optimization. In other words, assuming that central authorities attempt to achieve some ideal social state, they have to be extremely specific about formulating the policy leading to such an outcome. As Hayek (1945) warns, imposing excessive and restrictive regulations on the social exchange process deprives the ability to establish informal social arrangements, thus being extremely harmful to the society in the long-run perspective.

Despite being proclaimed as an advocate of procedural justice principle, Rawls (1999) utilizes the analogous "current time-slice" or "end-result" (using Nozick's, 1974, terminology) account. Although Rawls (1971) presumes that in the well-ordered society, all the individuals voluntarily prefer the egalitarian outcome and this assumption takes the form of the positive principle, one can find it as vague as Mills' (2001) hierarchy of pleasures discussed above: there are no reasons to believe it. Considering the arguments presented above, Rawls's (1999) ideas about the just and virtuous society are equally damaging as the utilitarian optimization account.

7. Why the Argument in Defense of Procedural Justice Does Should Not Be Used in Defence of the Neoliberal Approach

In the present discussion, the central argument is the supremacy of procedural justice over distributive justice principles in the field of public choice. It is also argued that any presumably procedural principle incorporating the element of teleological reasoning (for instance, the Rawlsian distribution principle) is inferior in comparison with the purely deontological procedural justice principles. Effectively, this implies that public authorities, although ensuring the protection of basic freedoms and rights, should not impose any excessive restrictions on the formal institutional environment. Correspondingly, there is no place for the end-result policy, such as income redistribution, and the agents are expected to resolve the potential conflicts of interests through creating and adjusting the appropriate informal institutions. Based on what is presented above, the reader might create a wrong impression that the main argument pursued in this paper also works in defense of the neoliberal approach to public policy. Evidently, it does not and should not: defending self-regulation principles in the social policy has little in common with the modern neoliberal ideas, and the reasons behind such incompatibility are the path-dependent nature of the social progress as well as the role of moral sentiment and social norms in establishing sustainable social arrangements.

It would be argued that the system based on social arrangements does not work in the absence of sentiments. In the universe described by A. Smith (1976), Hayek (1945), and V. Smith (2010), the agents' cognition, moral beliefs, and behavioral patterns are shaped by the society, and the social arrangements are revealed in the form of social norms. Under this perspective, community, as a holistic entity, comes first, and the agents' cognition (and their values and choice, subsequently) are ultimately connected to the social environment. In contrast, under the neoliberal framework, society is viewed from the reductionist perspective, being treated as nothing more than the sum of individual atomistic agents (based on the interpretation suggested by Trout, 1991). Being saluted by Arrow (1968), the reductionist approach entails analyzing human beings separately from society. In this case, individuals with exogenously defined preferences come first, and society takes the form of the secondary constraint. Obviously, this view is radically incompatible with the arguments discussed in this paper, thus making the neoliberal notion of markets self-regulating practically invalid.

The additional line of argumentation arises from the notion of path-dependence. The principle of procedural justice is proclaimed to be superior to distributive justice since the former system of beliefs is more consistent with the notion of dynamic and evolutionally developing social systems. If the procedures do not work, they are either replaced with new rules either disappear with the societies failing to adopt the better regulations. However, there are no reasons to believe that society would adopt a fair system of procedures at any given moment of time due to inequality of power and injustice already accumulated. This argument is apparently important under the lack of proper importance attributed to sociability, as discussed above.

8. Conclusion

For the last couple of centuries, economics has been developing as a presumably positivist science. Nevertheless, establishing the principles of social exchange and social resource distribution is hardly possible without incorporating the considerations of justice. It would be a great exaggeration to claim that the orthodox social choice theory neglects normative moral principles completely. However, it is also true that the aforementioned principles have never been incorporated into the formal economics framework in a natural and organic manner. In simpler words, justice always serves as some supplementary mechanism, coming to play afterwards the formal and unbiased analysis. Moreover, due to the adopted principle of radical consequentialism, any fairness considerations are based solely on the idea of distributive justice, or justice-of-outcome.

The main critique of the principle of distributive justice in the field of social theory is that it is merely vague and lacks any objective criterion. The approach elaborated by Arrow (1951) somehow eliminates this controversy, proclaiming that justice is whatever individual values dictate. Yes, this idea cannot survive Scanlon's (1975) urgency and importance arguments. Using Scanlon's (1975) line of argumentation, it is possible to declare communities' survival and development in the long-run perspective as the objectively good and essential goal (since what might be more important?) Paradoxically, the aforementioned outcome is logically inconsistent both with the principle of distributive justice and the neoclassical framework. The objective of social sustainability cannot be promoted through the optimization process; in fact, there is no final point to achieve. Instead, social sustainability is ensured by means of collective intelligence, social norms, and a wise regulatory framework leaving a sufficient degree of flexibility for informal arrangements.

Under the unorthodox framework, the de-facto social outcome is always uncertain yet instantly adjusting. From this perspective, procedural justice works as a mechanism regulating social exchange and guaranteeing its persistence. Correspondingly, there is no need (and space) for the supplementary considerations of fairness, except for the just means of achieving social compromise. Although the proposed framework denies the mean-end resources redistribution, it should be mistaken for the support of the neoliberal economic and political system. The reductionist approach and proclaimed path-independence of the social choice essential for the aforementioned framework make it incompatible with the framework proposed in this paper.

References:

- Alexander, S. 1968. *Beauty and other forms of value*. New York: Thomas Y. Crowell Company.
- Arrow, K.J. 1951. *Social Choice and Individual Values*. New York: Wiley.
- Arrow, K.J. 1968. *Mathematical Models in the Social Sciences*. In *Readings in the Philosophy of the Social Sciences* ed. Bordbeck, New York: Macmillan.

- Arrow, K.J. 1997. The functions of social choice theory. In *Social Choice Re-examined* ed. K.J. Arrow, A. Sen, and K. Suzumura. Palgrave Macmillan, London.
- Bentham, J. 2000. *An Introduction to the Principles of Morals and Legislation*. Kitchener: Batoche Books.
- Berg, N., Gigerenzer, G. 2010. As-if behavioural economics: Neoclassical economics in disguise? MPRA Paper No. 26586. Available at https://mpra.ub.uni-muenchen.de/26586/1/MPRA_paper_26586.pdf.
- Blackorby, C. 1990. Economic Policy in a Second-Best Environment. *The Canadian Journal of Economics / Revue Canadienne d'Economique*, 234, 749-771.
- Crisp, R. 1997. *Routledge Philosophy Guidebook to Mill on Utilitarianism*. Psychology Press.
- Fleurbaey, M., Hammond, P.J. 2004. Interpersonally Comparable Utility. *Handbook of Utility Theory*, 1179-1285. https://doi.org/10.1007/978-1-4020-7964-1_8.
- Frankena, W.K. 1962. The concept of social justice. In *Social Justice* ed. R.B. Brandt, 1-29. Prentice-Hall, Englewood Cliffs.
- Hammond, P.J. 1991. Interpersonal comparisons of utility: Why and how they are and should be made. In: *Interpersonal Comparisons of Well-Being* ed. J. Elster, J.E. Romer, Cambridge University Press. <https://doi.org/10.1017/cbo9781139172387.008>.
- Harrison, R. 1983. *Bentham*. Routledge & Kegan Paul, London, Boston, Melbourne and Henley.
- Harsanyi, J.C. 1953. Cardinal utility in welfare economics and in the theory of risk-taking. *Journal of Political Economy*, 61, 434-435.
- Harsanyi, J. 1977. Rational behavior and bargaining equilibrium in games and social situations. Cambridge: Cambridge University Press.
- Hayek, F.A. 1945. Individualism: true and false. In: B. Caldwell (ed.), *Studies on the abuse and decline of reason*, Liberty Fund, Inc., 2018, pp. 46-74.
- Johansson-Stenman, O. 1998. On the problematic link between fundamental ethics and economic policy recommendations. *Journal of Economic Methodology*, 52, 263-297. <https://doi.org/10.1080/13501789800000016>.
- Kaneko, M., Nakamura, K. 1979. The Nash Social Welfare Function. *Econometrica*, 472, 423-435.
- Leiter, B. 1997. Nietzsche and the Morality Critics. *Ethics*, 1072, 250-285.
- List, C. 2003. Are interpersonal comparisons of utility indeterminate? *Erkenntnis*, 58, 229-260.
- Matson, E.W., Doran, C., Klein, D.B. 2019 Hume and Smith on utility, agreeableness, propriety, and moral approval. *History of European Ideas*, 455, 675-704. <https://doi.org/10.1080/01916599.2019.1589238>.
- Mill, J.S. 2001. *Utilitarianism*. Kitchener: Batoche Books.
- Miyasaki, D. 2013. The Equivocal Use of Power in Nietzsche's Failed Anti-Egalitarianism. *Journal of Moral Philosophy*. <https://doi.org/10.1163/17455243-4681016>.
- Myerson, R.B. 1985. Bayesian Equilibrium and Incentive Compatibility: An Introduction. In *Discussion Papers 548*, Northwestern University, Center for Mathematical Studies in Economics and Management Science eds. Hurwicz, Schmeidler, and Sonnenschein.
- Nash, J.F. 1950. The Bargaining Problem. *Econometrica*, 18, 155-162.
- Nozick, R. 1974. *Anarchy, state, and utopia*. Basic books, 1974.
- Ossar, J. 1991. Adam Smith and Social Justice: The Ethical Basis of the Wealth of Nations. *Auslegung: A journal of philosophy*, 172, 125-136.
- Pareto, V. 1971. *Manual of Political Economy* translated by A. Schrier. Macmillan, London.

- Petersen, H.G. 2004. Redistribution and the efficiency-justice trade-off. Athens University of Economics and Business 92, Department of International and European Economic Studies. <https://ideas.repec.org/p/fth/athebu/92.html>.
- Rawls, J. 1971. *A theory of justice*. Revised edition. Cambridge: Harvard University Press, 1999.
- Robbins, L. 1938. Interpersonal Comparisons of Utility: A Comment. *Economic Journal*, 48, 635-641. <https://doi.org/10.2307/2225051>.
- Scanlon, T.M. 1975. Preference and Urgency. *Journal of Philosophy*, 72, 655-669. <https://doi.org/10.2307/2024630>.
- Schaefer, D.L. 2006. Procedural versus substantive justice: Rawls and Nozick. *Social Philosophy and Policy*, 24(1), 164-186. <https://doi.org/10.1017/s0265052507070070>.
- Sen, A. 1987. *Economic Behavior and Moral Sentiments*. In: *On Ethics and Economics*, Oxford: Blackwell.
- Sen, A. 1997. Individual preferences as the basis for social choice. In *Social Choice Re-examined* eds. K.J. Arrow, A. Sen, and K. Suzumura. Palgrave Macmillan, London.
- Sen, A. 2009. *The Idea of Justice*. Cambridge, MA: Harvard University Press.
- Simon, H.A. 1996. *The Sciences of the Artificial*, 3rd edition. Cambridge, MA: MIT Press.
- Smith, A. 1759. *The Theory of Moral Sentiments*, 2nd ed. A. Millar, A. Kincaid and J. Bell, Strand. Edinburgh, 1761.
- Smith, V.L. 2010. *Rationality in Economics: Constructivist and Ecological Forms*. Cambridge University Press.
- Smith, V.L. 2003. Constructivist and ecological rationality in economics. *The American Economic Review*, 93, 465-508.
- Smith, V.L., Wilson, B.J. 2019. *Humanomics: Moral Sentiments and the Wealth of Nations for the Twenty-First Century*. Cambridge: Cambridge University Press.
- Stark, O., Jakubek, M., Falniowski, F. 2014. Reconciling the Rawlsian and the utilitarian approaches to the maximization of social welfare. *Economics Letters*, 122, 439-444.
- Thibaut, J., Walker, L. 1978. A Theory of Procedure. *California Law Review*, 66(3), 541-566. <https://doi.org/10.2307/3480099>.
- Trout, J.D. 1991. Reductionism and the Unity of Science. In: Boyd, Gasper and Trout eds, 387-392.
- Vermunt, R., Törnblom, K. 1996. Introduction: Distributive and procedural justice. *Social Justice Research*, 9(4), 305-310. <https://doi.org/10.1007/bf02196987>.
- Viner, J. 1991. *Essays on the intellectual history of economics*. Princeton: Princeton University Press.