

Criteria of distributive justice : an economic inquiry

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Criteria of Distributive Justice

An Economic Inquiry

Z. Emel Öztürk

SUMMARY OF THE THESIS

“CRITERIA OF DISTRIBUTIVE JUSTICE AN ECONOMIC INQUIRY”

BY Z. EMEL ÖZTÜRK

This dissertation comprises four self standing studies.

Each chapter studies principles of distributive justice in a variety of economic environments. In each chapter, the main goal is to provide criteria – rankings or social welfare functions – for the evaluation of distributions in terms of fairness and efficiency.¹ Although we draw upon ideas found in the philosophical literature, the current study is primarily an economic inquiry in which we employ an axiomatic approach.² In each chapter, we first postulate axioms representing the relevant principles of distributive justice. The evaluation criteria are obtained as logical consequences of these axioms. Our primary motivation in adopting an axiomatic approach is not the satisfaction we derive from the procedure itself – though the author admits to the satisfaction part – but the fact that such a procedure makes the ethical criteria underlying the welfare statements clear. Hopefully, the results presented here contribute to our knowledge of important principles of distributive justice, and provide tools for their use.

Fairness is a popular but complicated concept. In defining what constitutes a just distribution, one needs to first ask what the relevant outcome of interest (income, well-being, etc.) is and who the recipients of that outcome (individuals,

¹We use “fair” and “just” interchangeably throughout this study.

²See Roemer (1998) for an account of the interplay between contemporary political philosophy and the economic literature on distributive justice.

countries, etc.) are. Then comes one of the most important questions, if not the most important question, one must ask when defining distributive justice: “Which individual characteristics are to be considered ethically relevant?” In other words, one must ask which personal characteristics, if any, can justify inequalities in the outcomes obtained by two recipients. Naturally, what is ethically relevant depends on the specific problem at hand. For instance, the number of hours worked might be considered relevant in an income distribution problem, while it might not matter in the problem of seat allocation in a movie theatre.

In Chapter 2, the outcome of interest is a set of m commodities, and the recipients are individuals. The primary notion of fairness adopted is envy-freeness. An allocation is said to be envy-free if no individual prefers someone else’s bundle to his own. An inequality in a distribution of the m commodities is considered inoffensive by envy-freeness provided that no individual prefers what another individual has to his own. The criterion thus considers preferences to be the ethically relevant characteristic.

Even though it is one of the most important concepts of the economic literature on distributive justice, envy-freeness does not solve all distributional problems. This is because the set of envy-free and efficient allocations can be quite large, or it might be empty. In the first case, we still have the question of which allocation to choose from the set of envy-free and efficient allocations. In the second case, envy-freeness is completely silent. It is the second problem that Chapter 2 deals with. We propose a method — a class of envy measures — to compare allocations in terms of envy. The characterized class measures the envy of one individual to another by the relative utility difference (using the utility function of the envious) between the bundle of the envied and the bundle of the envious. The particular utility representation to be used is fixed by the axioms. The class measures overall envy by the sum of these (transformed) relative utility differences. In the absence of an envy-free and efficient allocation, the class of envy measures provides a way to compare allocations based on their intensity of envy. For instance, allocations in the Pareto efficient subset that minimize an envy measure constitute interesting options.

In Chapter 3, the outcome of interest is income, and the recipients are a group of n individuals. The principle of distributive justice focused on in this chapter is libertarianism. Libertarianism ascribes ethical significance to laissez-faire outcomes. Redistributive taxation is considered an inherent injustice. We define an axiom, laissez-faire, to capture the libertarian opposition to redistribution. The axiom says that the no-redistribution case (i.e., the allocation in which each individual is given his market income) is better than any other allocation of the same amount of total income. Hence, libertarianism is a criterion of distributive justice that considers market income the ethically significant characteristic. Not only are inequalities arising from differences in market incomes considered inoffensive, but also promoted.

Two main lines of justification proposed for libertarianism are individual liberty and efficiency of the free market. It is the second line of arguments that this chapter belongs to. We show that we still encounter problems in achieving efficiency even if redistribution is completely eliminated. Theorem 3.2 shows that it is impossible to combine the laissez-faire principle with Pareto indifference. Weakening Pareto indifference to weak Pareto (which states that an increase in the disposable income of everyone is an improvement) helps us avoid the impossibility, but the possibilities are very limited. We find that a ranking which satisfies weak Pareto and laissez-faire strictly prefers an income allocation with higher total income regardless of the distribution of market incomes. It is only when the sums are equal that the ranking respects market incomes. Thus, the ranking leaves very little room for libertarian values.

Chapter 2 and Chapter 3 both assume that individuals differ only with respect to one relevant personal characteristic: preferences in Chapter 2 and market incomes in Chapter 3. What does distributive justice require if individuals differ with respect to both relevant and irrelevant characteristics? It is this question that Chapter 4 deals with.

In Chapter 4, the outcome of interest is income, and the recipients differ with respect to ethically relevant characteristics (called responsibility characteristics) and irrelevant characteristics (called circumstances). The main ideal of fairness is equality of opportunity.

Equality of opportunity as a criterion of distributive justice consists of two main principles. The first, the principle of compensation, deems inequalities due to differences in circumstances unacceptable. The second, the principle of reward, tackles the question of how to allocate income between individuals who differ only with respect to their responsibility characteristics. We focus on two interpretations of the reward idea. The first, liberal reward, says that market income differences should be respected when distributing income among individuals who share the same circumstances. The second, utilitarian reward, says that fairness need not be concerned with the manner in which income is distributed among such individuals.

In Chapter 4, we first present classes of social welfare functions that satisfy compensation and liberal reward, and compensation and utilitarian reward. We also present the optimal distributions suggested by these social welfare functions. In the second part of the chapter, following the procedure proposed by Atkinson (1970) and Kolm (1969), we propose to measure inequality of opportunity in a given income distribution by the per capita income that could be destroyed if incomes are distributed fairly and the resulting income distribution has the same welfare as the given distribution. We show that this is equivalent to measuring inequality of opportunity in a distribution by the difference between the welfare at the actual distribution and welfare at the fair distribution of the same total income. Thus, the characterized welfare function classes serve as the ethical basis for the inequality measures in the sense that the inequality of opportunity registered increases as an income distribution moves further (in terms of welfare difference) from the optimal distribution.

In Chapter 5, the outcome of interest is an international river, and the recipients are sovereign countries located along the river. Sharing water from international rivers has often been a source of conflict between riparian countries mostly because property rights over rivers are not well defined. Several international principles of international law were proposed to solve this problem. We focus on three that attracted most attention from policymakers and researchers. First, the principle of absolute territorial sovereignty (ATS), states that a country has absolute sovereignty over the part of the river that is within its borders. Thus,

the principle considers borders ethically relevant. Second, unlimited territorial integrity (UTI), states that one country cannot alter the quantity or quality of water available to another. That is, the principle considers the amount of water available up to a country's border ethically relevant. Third, territorial integration of all basin states (TIBS), considers the entire river a single unit and allows each country an unlimited use of it. That is, the principle considers all countries the same with respect to their relevant characteristics.

Even though these principles are intuitive, they are difficult to formulate in applications. Moreover, there is an ongoing debate on which one to use in practical applications. It is these two questions that Chapter 5 tackles. First, we propose a way to formalize the principles. To do so, we take a reference vector r that defines the property rights over the river. That is, r_i shows the amount of river water i has a right to consume without having to compensate any other country. Our main axiom, Pigou-Dalton for r , says that, given that each country consumes its reference level of water, equalizing monetary compensations received by countries is an improvement. We argue that the axiom provides a reasonable way to formalize the aforementioned principles via the choice of the reference vector. Theorem 5.1 shows that anonymity and Pigou-Dalton for r imply that TIBS must be chosen over ATS and UTI.

Taking territorial integration of all basin states as the primary criterion of distributive justice, we show that a ranking that satisfies Pigou-Dalton for r , Pareto, anonymity and an independence axiom applies the Lorenz dominance criterion to equivalent income vectors. The equivalent income of a country is the amount of the hypothetical monetary compensation that, if combined with the reference level of water consumption, would give the country the same utility as its initial situation. The Hammond equity version of Pigou-Dalton for r combined with weak Pareto, on the other hand, characterizes the class of egalitarian equivalent orderings that apply the maximin criterion to vectors of equivalent income.

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