

# EQUAL OPPORTUNITY, REWARD AND RESPECT FOR PREFERENCES: REPLY TO ROEMER

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This rejoinder to Roemer (this issue) examines Roemer's amendment to his EOp criterion, explains the similarities and differences between Roemer's approach to equality of opportunity and the economic literature inspired by the fair allocation theory, and proposes some clarifications on the compensation principle and the role of the reward principle in the definition of a responsibility-sensitive social criterion. It highlights the power of the ideal of respect for individual preferences with respect to the reward issue and the concern for potential harshness of the social criterion toward the individuals who fail to make good use of their opportunities. It discusses Roemer's objection against holding individuals responsible for their preferences.

The literature on equal opportunity as a criterion for social justice has developed in economics in various ways and it is a curious phenomenon that different scholars can spontaneously go in quite different directions on the basis of the same basic ideas. Then it is important to compare the various approaches and seek to determine their respective value and scope for application.

In the case at hand, the starting point is, undoubtedly, the wave of publications in political philosophy in the 1980s by Dworkin (1981), Rawls (1982), Arneson (1989) and Cohen (1989). The common point of these

This paper has benefited from inspiring conversations with J. Roemer and comments by M. van Hees. I am also grateful to Dan Hausman for helpful comments on an earlier version that contained a short rejoinder to his essay on my book (Hausman 2009), but this has been removed on request of the editor.

contributions is that they give a key role to personal responsibility in the definition of a just social system. In the economic literature, Roemer's seminal contributions (1993, 1998) were directly inspired by this idea and a similar formalism was developed at the same time by Van de gaer (1993). Another way of modelling the same idea, or so it seemed, was adopted simultaneously by Fleurbaey (1994) and Bossert (1995). Both directions of analysis have given rise to two separate literatures that, unlike their authors, did not interact much. Both branches have developed applications in the field of public policy (optimal taxation) and inequalities of opportunity.

In several surveys, I (and my co-author Maniquet for one of these surveys) tried to analyse the similarities and differences between the two approaches, eventually publishing a monograph (Fleurbaey 2008) proposing an overview of the field and identifying the basic principles underlying the differences between the approaches. It is very good for our field that John Roemer (this issue), reacting to this monograph, offers his own perception of the difference between the various approaches and of their relative merits. The purpose of the present rejoinder is to clarify a few points, make some progress in the interpretation of the approaches, and to encourage further thinking about their respective spheres of application.

A point on terminology. The equal opportunity ethic wants to eliminate inequalities due to 'circumstances' and not inequalities due to 'effort' or similar 'responsibility characteristics'. In other words, 'circumstances' are whatever characteristics call for redistribution while 'effort' and other 'responsibility characteristics' are the rest. A 'circumstance subgroup' (called 'type' in Roemer's paper) is a set of individuals sharing the same circumstance characteristics, while a 'responsibility subgroup' is a set of individuals sharing the same responsibility characteristics. There is an individual 'outcome' (income, health, well-being) and the goal is to give individuals equal opportunities to obtain good achievements in this outcome.

### CONTRIBUTIONS OF ROEMER'S PAPER

Roemer's paper is not just a comment on my book. He also develops a generalized version of his favourite criterion. His classical criterion focuses on the average outcome of the worst off, where the worst off are identified as those who have the lowest outcome in their respective responsibility subgroup. The generalization consists in introducing a concern for inequalities among the worst off, by taking a concave transform of their outcome level. In the extreme, one can get as close as one wants to simple outcome egalitarianism. This generalization has the virtue of reducing the danger of sacrificing some of the worst off (e.g. those who make little effort) and letting them remain in a

miserable situation. Luck egalitarianism has been criticized for leaving the 'undeserving poor' in dire straits, and this generalized version of Roemer's criterion tends to alleviate this problem.

Another contribution of the paper is to study the link between the principle of compensation (which recommends suppressing inequalities due to circumstances, i.e. characteristics for which the individuals are not responsible) and the focus on the worst off among each responsibility subgroup. If the principle of compensation is interpreted as giving absolute priority to the worst off, then one can focus on the function  $\theta$  that describes the lowest level observed for any given level of effort. This is not a new idea, but as Roemer's criterion can be described as taking the average value of  $\theta$  over all levels of effort, it is nice that he connects the compensation principle to a particular component of his criterion. In the next section, I explain in greater detail the logic of these concepts and how this relates to the literature.

### THE COMPENSATION PRINCIPLE AND ROEMER'S FUNCTION $\theta$

In his paper, Roemer does not recall how the compensation principle is defined in the literature and only suggests that it should at least imply what he calls Principle Dom. This is correct and can be explained as follows. The compensation principle has initially been formulated in the economic literature on equal opportunity as requiring that individuals with the same effort should obtain the same outcome. This is not very helpful when one wants to evaluate imperfect allocations in which this condition is not satisfied. Therefore the literature has developed versions of the compensation principle that bear on orderings of allocations (see, e.g. chapter 3 of my book). One such version says that reducing the outcome gap between two individuals who have the same level of effort (or, more generally, the same responsibility characteristics) improves the situation.<sup>1</sup> Such a reduction of the outcome gap must involve an improvement for the worse off, because levelling down is not desirable. But it is possible to give absolute priority to the worse off in this pair of individuals, and declare the change an improvement even when the worse off gains little and the better off loses a lot. Other variants of the compensation principle do not give absolute priority to the worse off in this way.

There is a close link between the absolute-priority variant of the compensation principle and Roemer's Dom. It can be easily proved that if the lowest level of outcome in some effort subgroup is raised (which Dom declares an improvement), this can be obtained by an application of the

<sup>1</sup> Roemer deals with a continuum of individuals, which requires reformulating this condition in terms of a subset of agents with positive mass. Such technicalities can be ignored here.

compensation principle in which the worst off in this subgroup are raised while some better off individuals in the same subgroup may lose some of their advantage (it may also happen, of course, that nobody loses, in which case the Pareto principle suffices and the compensation principle plays no role). In addition, some permutations of individual situations may be needed (because the worst off need not be the same persons in the two situations to be compared), which is innocuous for any impartial approach.

One then understands why, as Roemer claims, all solutions that give absolute priority to the worst off in the application of the compensation principle can be described by the way they deal with the function  $\theta$ . (Some solutions also take account of outcome values above  $\theta$ , when the situation of the worst off is fixed but other people endure a change.) One then also understands why the solutions that do not fully satisfy the compensation principle, such as the min-of-means or conditional equality, violate Dom and cannot be analysed in terms of an operator focused on the function  $\theta$ , as stated at the end of Roemer's paper. All of this is well understood in the literature, but it is not useless to state Dom explicitly, as a consequence of the compensation principle.

There is an interesting difference, though, between the solutions which, like Roemer's, make a simple averaging operation on the values attained by  $\theta$ , and the solutions proposed by the other branch of the literature, like the egalitarian-equivalent, which make a computation on  $\theta$  that also depends on the transfers received by the individuals. In other words, these solutions need more information than the graph of the function  $\theta$ . This is due to their embodying the liberal reward principle, which requires a concern for the way in which redistribution is performed and not just its outcomes. The liberal reward approach, and more generally the theory of reward developed in my book, is questioned by Roemer, and is the topic of the next three sections.

### IS EQUALITY OF OPPORTUNITY SILENT OR VAGUE ABOUT REWARD?

Economists are formally oriented. They often like the idea that 'equality of opportunity' is achieved when opportunities are equalized, whatever they are. How can 'equality of opportunity' mean anything else? There is therefore an important empirical literature that looks at the distribution of outcomes (such as income or education level) for subgroups of the population with different social background (defined by parental income, occupation or education). When two subgroups have the same distribution of outcome it is considered that they have equal opportunities.

One can of course question the representation of the opportunities of individuals by the distribution of outcome in a particular subgroup they belong to, but let us put this issue aside. The point I want to discuss

here is the idea that 'equality of opportunity' is primarily about achieving equality of the sets of options to which individuals have access. In his paper, Roemer comes close to endorsing this view when he expresses scepticism about the possibility or desirability of having a precise theory about what the opportunities should be or, in other words, about how effort should be rewarded.

The motivation behind theories of justice belonging to the broad class of 'luck egalitarianism', however, is to limit redistribution to what is strictly necessary to make opportunities equal. Beyond that, opportunities may remain formally equal, but there is a sense in which the principle of equality of opportunity is no longer respected. Consider the following example. Imagine a country in which individuals have equal abilities but they come to life with unequal inherited wealth endowments. What does equality of opportunity mean in this context? Opportunities would be equalized if the inherited endowments were swiftly pooled and equalized at the beginning of life. They would also be equal if, in addition, income was thoroughly equalized throughout life. Obviously, however, the ideal of equality of opportunity is more akin to the former scheme than to the latter. As Cohen wrote, for instance, 'we should therefore compensate *only* for those welfare deficits which are not in some way traceable to the individual's choices' (1989: 914, emphasis added).

The idea that redistribution should occur only to compensate for unequal circumstances is the idea that underlies the 'liberal reward' principle. After having called it the 'natural reward principle' because it shapes opportunities by the natural productivity of effort (an individual who suddenly decides to make more effort will not be submitted to a different transfer and therefore will reap the direct benefits of the additional effort), I suggested to call it 'liberal' instead, because the sole ethical justification I could find for this principle is that redistribution should be neutral regarding characteristics for which individuals are held responsible – in contrast, preserving the natural productivity of effort does not seem a valuable goal in itself. A picturesque statement of this neutral attitude is given by Cohen in the following discussion of expensive tastes: 'I do not say that a person who deliberately develops an expensive taste deserves criticism. I say no such severe thing because there are all kinds of reasons why a person might want to develop an expensive taste, and it is each person's business whether he does so or not. But it is also nobody else's business to pick up the tab for him if he does' (1989: 923).

As explained in my book, this is the theory of 'reward to effort' that emerges from the early philosophical theories of equal opportunity. This theory is shared by Rawls' and Dworkin's theories of equality of resources and by Arneson's and Cohen's theories of equality of opportunity. There are two other theories of reward. One has been proposed by Roemer himself. It says that when one looks at a group of individuals having

the same circumstances, one should be indifferent about the inequalities between them, so that the only thing that counts is their average outcome. Looking at the average is a typical utilitarian attitude, which is why I propose to call this the 'utilitarian reward principle'.

The liberal and the utilitarian approaches to reward share a common feature. They are not *explicit* theories of reward, because neither specifies a particular relationship between effort and payoff, for instance a form of proportionality. The relation between effort and payoff they advocate is just the consequence of whatever is induced by a neutral treatment of responsibility characteristics (for the liberal approach) or the absence of aversion to inequalities in certain subgroups (for the utilitarian approach). Nevertheless, the fact that they do not directly specify the effort–payoff relationship does not prevent them from indirectly implying a very specific relationship in every application.

The third theory of reward is Arneson's, in his revised theory of responsibility-catering prioritarianism (see Arneson 2000, 2007). His view is also not exactly a theory of just reward, but it nevertheless says that the degree of priority of an individual is diminished when her disadvantage is due to her responsibility. Moreover, Arneson does not give a very precise theory of responsibility but goes quite a long way by proposing to define responsibility in terms of desert, and measuring desert in terms of how conscientiously the individual seeks what is right and tries to do it. This is not exactly a theory of reward because the degree of priority of an individual also depends, in Arneson's theory, of how badly off the individual is and how much she can benefit from help. Therefore the final shape of reward to effort in a given case will also depend on the parameters of the situation and the efficacy of transfers to individuals with various characteristics.

We therefore have three theories about what opportunities should be and how effort (or whatever is defined as the sphere of individual responsibility) should be rewarded, and the first two theories are quite precise. It is interesting to examine why Roemer is not favourable to such precise views of reward.

### AWAY FROM STRICT EQUALITY OF OPPORTUNITY

In his paper, Roemer suggests that the utilitarian approach should be softened by a concern for inequalities even within circumstance subgroups. As he says, such concern may stem from the desire to promote solidarity and community in the society, as well as a worry about mistakes in the attribution of responsibility due to observation problems. The generalized form of his 'mean-of-mins' criterion is introduced precisely in order to incorporate some inequality aversion within circumstance subgroups.

For someone who has criticized the equal opportunity ethic for being harsh to the undeserving, this is a very welcome move, and one can think of applying the same kind of amendment to any theory of reward. Arneson's desert-sensitive prioritarian theory appears already to incorporate such concern because it can be made more or less sensitive to desert depending on how much tolerance to inequalities one wants to put in the criterion. As a matter of fact, it was in part motivated also by the wish to avoid the harshness of the strict equality of opportunity approach.

The liberal reward approach may appear less easily amenable to such amendment because it typically implies ignoring the outcome levels (and, therefore, the outcome inequalities) completely, as a criterion such as egalitarian equivalence (EE), for instance, focuses on resources and ordinal preferences. Roemer's comparison of his generalized criterion (GEOp) and EE in various examples shows, though, that EE implies redistributive policies similar to those obtained with GEOp for an intermediate range of inequality aversion. This is due to two factors. First, EE gives little weight to liberal reward and gives so much priority to the compensation principle that it allows for inequality reducing transfers within circumstance subgroups. Second, the choice of the reference circumstance characteristics in the definition of EE is key to determining the ultimate level of inequality between individuals with identical circumstances. Indeed, EE seeks to produce a situation in which reward to effort is for everyone the same as it would be under *laissez-faire* in the reference circumstance subgroup. If one picks a reference circumstance for which this reward is relatively flat, one obtains a flat reward to effort in the whole population.

Moreover the 'equality of autonomy' approach that I propose in the last chapter of the book, and which involves the egalitarian-equivalent approach, appears perfectly compatible with a strong concern for solidarity and community. In fact, there are serious objections against the idea of translating such concern into the goal of reducing inequalities in a measure of the outcome, when this outcome is well-being. More will be said on this below, because it connects to Roemer's argument that his approach is not about well-being but only about specific outcomes like health or income.

### **IS THERE NO ARGUMENT FOR THE LIBERAL APPROACH TO EQUAL OPPORTUNITY?**

In addition to expressing doubts about any precise theory of reward, Roemer attacks the liberal approach to reward by borrowing from classical objections against libertarianism. The key idea of such objections is that the *laissez-faire* does not give more freedom than a redistributive state, it allocates freedoms differently, giving more to the rich and less to the poor.

In my opinion, Roemer is too dismissive of the existing literature when he writes that there is no argument for the market allocation apart from the fact that, assuming perfect competition and no market failure, it delivers an efficient allocation. There is a venerable tradition in the theory of fair allocation that highlights the market allocation derived from equal endowments (the 'egalitarian competitive equilibrium') as especially interesting.

Among the many results that do this, let me mention two. One involves the no-envy condition. This condition is a very natural generalization of the idea of equality when there are multiple dimensions of individual good, and individuals have diverse preferences over these dimensions. It says that no individual should prefer any other individual's bundle of goods to his own. When there is only one good, or when preferences are identical, this boils down to a simple form of equality (same quantity in the former case, equal value for the preferences in the latter). The result I wanted to recall is that the egalitarian competitive equilibrium always satisfies this condition, and moreover that when there are many individuals with no big gaps in the distribution of preferences, the efficient and envy-free allocations are all close to the egalitarian competitive equilibrium (Varian 1976).

Another result in the same tradition relies on the fact that the egalitarian competitive equilibrium has the interesting property that when an individual changes her preferences in such a way that her bundle at the equilibrium raises in her preferences, there is no need to change the allocation. In fact, this is the only allocation of resources that satisfies this property in conjunction with the requirement of efficiency and a very mild requirement of impartiality (Gevers 1986). Note that when an allocation is envy-free and such a change of preferences occurs, the allocation remains envy-free. And the property of independence of the allocation to certain changes of preferences resonates with the neutrality underlying liberal reward.

Roemer is right that there is very little in favour of the market allocation if one restricts attention to the welfarist tradition. But as soon as one considers a richer setting in which not only the distribution of utilities, but also the way featuring resources are distributed and compared by individuals, one finds interesting arguments in favour of the market allocation, provided it is an egalitarian allocation derived from equal initial individual endowments.

In addition, the key objection that there is no more freedom in a market allocation than in a more redistributive system is not convincing. There is an obvious gradation of intervention when the redistributive operations depend on more and more individual characteristics and actions. When individuals can trade among themselves without having to report to the state and pay a tax, there is obviously less intervention and



more of a certain form of freedom than if they have to do it (tax evasion is the proof that individuals try to escape the constraint). This does not mean that there is more freedom overall with the *laissez-faire*, because one may prefer a redistributive system, in which the poor have more resources while paying VAT every time they go shopping, to a *laissez-faire* system with enormous inequalities. But the egalitarian competitive equilibrium is not a *laissez-faire* allocation and has no poor (unless everyone is). It ignores people's preferences and subjective utility when it redistributes endowments and this is not a farfetched idea.

Therefore, although the liberal idea that the state should not interfere with certain individual characteristics that belong to a personal sphere of responsibility may not be uncontroversial, it cannot be dismissed as totally groundless.

### RESPECTING PREFERENCES WITHOUT OVERLOOKING DISADVANTAGE

In the last chapter of my book I suggest dropping responsibility as a primitive value and focusing instead on freedom and respecting preferences. In addition to the concern about excessive inequalities, there is something eerie about shaping a society around the principle that no one should be bothered by requests for help from anyone else who failed to seize his own opportunities. Theories of equal opportunities, in this respect, appear to vindicate a general attitude of selfishness and self-righteous arrogance.

In his paper, Roemer's move toward a more inequality-averse criterion (GEOp) goes some way to alleviate this worry, and may be read as a move in the direction I propose. But what I suggest is a more radical departure in a sense, and with quite different implications. The idea is the following. Why not forget the responsibility language altogether and focus on something more positive and humane, that is compatible with a general attitude of solidarity without limits? My proposal is to take freedom and respect for preferences as the prime values. In fact, I even think the latter, by and large, subsumes the former because a form of freedom that goes against people's will is problematic. Truly enough, there are basic sorts of freedom that should be granted to all, independent of their desires. But beyond such basic freedoms, the rest should be a matter of preference. In particular, the degree of choice that one should have in one's life should be largely determined by preferences.

This approach puts a lot on the shoulders of preferences, and creates all sorts of problems but also induces interesting consequences. The first consequence is that a society with a lot of freedom and respect for individual preferences looks like a society with a substantial amount of responsibility for personal preferences, because individuals have and live

what they want. But there remains a difference with the severe equal opportunity approach, because no one begging for help can be rejected for having failed to seize opportunities.

The second consequence is that interpersonal comparisons should not be made in terms of utility, because this would go against the individuals' own judgement (see Fleurbaey 2011 for more details on this point). When two individuals with identical preferences compare their lives, their judgement need not align with a comparison of utilities because their utilities may be scaled differently due to different standards (caused by different personal paths, different background, or different reference group). Respecting their judgement therefore requires a measure of well-being that is made either in terms of the object of their preferences or in an external evaluative scale that is uniformly applied to all individuals. In both cases, the measure of well-being involves only ordinal preferences.<sup>2</sup> Now, neglecting utilities in this way is equivalent to holding individuals responsible for the calibration of their utilities and applying the liberal reward approach (in particular, a change in one's utility function that does not affect one's preferences triggers no change in the distribution of resources).

This means in particular that one should not think of evaluating social situations with a social welfare function applied to the distribution of individual subjective utilities. This would fail to record the true inequalities as they are seen by the concerned individuals themselves. A criterion like GEOp is then problematic if it is applied to an outcome measured in terms of subjective utility. This is not, in fact, what Roemer suggests, and this is discussed in the next section.

Note, however, that the 'ordinal non-comparable' preferences one needs in order to implement compensation for unequal circumstances must be defined over circumstance characteristics. They may therefore be quite different from ordinary preferences over consumer goods and involve deep evaluations (e.g. of bodily or even personality characteristics) that go some way toward interpersonal comparisons of utility (but never the whole way).

Roemer raises an interesting objection against holding individuals responsible for their preferences (not just their utilities). Preferences are largely shaped by personal background, and inequalities in background translate directly into different life projects. Roemer therefore objects to

<sup>2</sup> An analogy with grading can help understand this point. Suppose students Alex and Barb both get grades A in math from their respective teachers. Are they equally good? We cannot tell because their two teachers may have different standards. It may happen that both teachers would agree that Alex is better than Barb. In order to make sensible comparisons one must either have a direct measure of their mathematical ability, or grade them with a single standard of evaluation. Just as comparing grades from different teachers is unreliable and may betray the teachers' own rankings, comparing lives in terms of subjective utilities may betray the concerned individuals' judgements.

leaving this preference-formation phenomenon induce different levels of success. If an individual is brought up in a house without books, it appears unfair to condone his choice of a low-skill orientation at school. For an approach based on the idea of respecting individual preferences over life, one can also object to respecting preferences that are shaped by unfair conditions. To a large extent, the problem is therefore addressed in my proposed approach by accepting that preferences that are formed under objectionable circumstances need not be respected. This does not mean that the school-averse individual should be force-fed with scholarship, but that the evaluation of the situation of his likes should not rely on his preferences but on a more acceptable ranking of lives (i.e. their lives are not as good as they think).

Roemer's approach and mine could still more or less agree in certain cases in which preferences ought to be respected. Suppose for instance that women's preferences are disproportionately but respectably oriented toward caring occupations that happen to give less social recognition and a lower income. Roemer's approach would then observe the distribution of income for men and women and conclude that women's opportunities for income are lower, due to their preferences. My approach would rather say that the life options offered to women are less valuable, given their preferences, than those offered to men because the latter, unlike the former, can have the jobs of their taste plus social prestige. We would therefore still agree that there is a problem, but would not describe it in the same way.

The difference between the two approaches would be more substantial in a case in which the options do not appear less valuable in my approach but there would be an inequality in the distribution of outcome. To take an extreme example, consider the members of degraded nobility who have a low utility because they have high standards inherited from the past, but otherwise their lives are as good as the others' according to the prevailing preferences (including their own). Their preferences are respectable, and my approach would consider that there is no inequality. In contrast, Roemer's approach, if applied to utility, would identify a lower utility on average in this group, and would consider that it is due to their circumstances and therefore calls for some form of compensation. This is just another example of the possible opposition between interpersonal comparisons of utility and interpersonal comparisons based on preferences.

In conclusion about this point, Roemer is right to highlight the problem of preferences shaped by circumstances, and the typical economic model, in the approach I have been working on, ignores it, which is a serious limitation in the perspective of empirical applications. This is an interesting aspect that should be introduced in such models in future research. But taking the respect of individual preferences as

the foundational value and therefore, as explained above, the source of individual responsibility, is compatible with a concern with unfair inequalities linked to differences in preferences.

### THE SCOPE OF EQUAL OPPORTUNITY: SPECIFIC SPHERES OR SOCIAL JUSTICE?

In his paper as well as in previous work, Roemer argues that his criterion of equal opportunity is meant to be applied to specific outcomes such as income, education or health, not to well-being. This suggests that, according to him, his approach is not really a formal embodiment of the philosophical theories of justice. This restriction, in contrast, does not seem to apply to the other branch of the economic literature that relies on the liberal reward approach. It is therefore worth examining whether that is an important difference between the two approaches.

Roemer's restriction is not something that one would immediately think of. After all, his mean-of-mins criterion or its generalized variant focuses on the average (or generalized average) outcome of the worst off, when the worst off are identified as those who have the lowest outcome in every responsibility subgroup. In particular, if the worst off happen to always belong to the same circumstance subgroup, one just needs to compute the average outcome of this group. This is a rather natural criterion if one endorses the utilitarian approach to reward, and it seems to make good sense when the outcome is well-being.

Roemer's restriction may be motivated by two considerations. First, Roemer's criterion requires a measure of outcome that can be summed up across different individuals, which is easier for income, education and health than for utility. In theory, however, one could take a cardinal measure of utility and study the application of the criterion to such a measure of utility. This is, by the way, what Roemer himself does in this paper, in the example of optimal taxation. Another possible consideration is connected to the fact that Roemer argues that the equal opportunity ethic requires that effort be rewarded, i.e. that more effort should be conducive to a better outcome, which is plausible for specific outcomes like income but less so for well-being because effort is costly. There may be an optimal amount of effort beyond which additional effort is detrimental to well-being.

Incidentally, in this respect, Roemer is coming close to Arneson's view that responsibility-catering egalitarianism requires a notion of desert. There remains a difference, though. While Arneson needs a cardinal measure of desert to which well-being should in some way be made proportional, Roemer only needs an ordinal ranking of individuals in terms of effort. Effort in Roemer's approach serves a more limited purpose than desert in Arneson's.

If one thinks of individuals as seeking their greatest satisfaction, making 'effort' in that direction is not the same as spending 'effort' like working hard. The latter may be ultimately detrimental to well-being whereas the former, by definition, is always beneficial. This suggests that in the context of social justice, effort should be redefined as whatever is favourable to well-being, which automatically guarantees a positive relationship between effort and outcome.

It is an interesting question whether defining effort as 'whatever raises the outcome level' is defensible. I do not have specific arguments to offer for or against this view, which is similar to Arneson's definition of desert in terms of trying to conscientiously seek and achieve what is right. I only want to observe that if it is acceptable, and if one assumes (or posits) that the true notion of effort is independent of circumstances (i.e. the statistical distribution of effort is independent of circumstances), then measuring effort levels can be done following Roemer's statistical approach. This statistical approach consists of measuring effort by the relative rank (percentile) of an individual in the distribution of *outcome* (rather than some input variable) in her circumstance subgroup. For instance, two individuals at the median rank in their respective circumstance subgroup would be considered to have exerted the same effort. This gives a measure of effort that only has an ordinal meaning, i.e. a greater percentile corresponds to a greater effort, but such an ordinal measure is sufficient for the implementation of the main solutions one finds in the literature (in the utilitarian reward as well as the liberal reward branch).

In conclusion, it seems that Roemer is unduly modest and can propose his approach in the debates about social justice, with well-being as the relevant individual outcome.<sup>3</sup> This also suggests that the difference between utilitarian reward (possibly generalized as in Roemer's paper) and liberal reward is relevant to social justice.

### COMPARING TAXATION MODELS

The readers who read Chapter 5 of my book and Roemer's paper may have a hard time understanding the similarities and differences. Let me briefly explain. In the economic literature after Mirrlees, the earnings taxation problem is typically that individuals have different earning abilities (different wages rates on the market) implying excessive inequalities. In my book, borrowing from work done with Maniquet, I study the case in which individuals differ in their wage rates as well as their labour-consumption preferences, and the goal of taxation

<sup>3</sup> The fact that using subjective utility as the metric of well-being is problematic because it may lead interpersonal comparisons astray can even be accommodated in Roemer's approach by taking a measure of well-being that is immune to this problem.

is to eliminate inequalities due to wage differences while respecting preferences. That is, wage rates are the circumstances and preferences the responsibility characteristic. My favourite EE solution for this case takes a null wage rate as the reference, and evaluates individual situations by the amount of consumption that the individuals would accept to enjoy if they did not have to work.

Roemer's model is different. Labour is now replaced by a level of education. All individuals have the same return to education (the return to education is like the wage rate in my model), and they differ only in their preferences. There is a preference parameter that measures the psychological cost of education; the greater the parameter, the less costly education is, and the more an individual is willing to undergo schooling, other things equal. Circumstance is now the distribution of this parameter in one's social group, and the responsibility characteristic is one's rank in this distribution.

This is an unusual model of taxation because everything revolves around this preference parameter. Material circumstances are the same for all. To define EE in this model, one needs to select a reference circumstance (i.e. a distribution of the parameter), and ask what lump-sum transfer an individual would need in order to obtain the same satisfaction if he kept his rank but the corresponding preference parameter was the value corresponding to this rank in the reference distribution. This involves equating utility levels for different preference parameters (because the same rank in two different distributions, the individual's own distribution and the reference distribution, correspond to different values of the preference parameter). The 'ordinal preferences' that are needed to compute EE in this model are very special preferences, as they enable the individual to compare his satisfaction with different preference parameters.

This is a good illustration of how one would proceed if one accepted the idea that circumstances can involve preference parameters (or their distribution), so that compensation would be performed for differences in preference parameters, not just for inequalities in the objects of preferences. I must confess I remain sceptical about this way of dealing with preferences. Either preferences are respectable, in which case there is no need to ask how an individual would fare with different preferences, or they are not, and then one simply uses corrected preferences in order to evaluate the individual's situation.

### CONCLUDING REMARKS

In conclusion, there remain important open questions about the reward issue. While philosophical theories initially relied on the liberal approach, the later literature suggested that other approaches are possible. One of the lessons of economic models is that the policy implications of adopting

one approach or the other may not be negligible, and, in the paper discussed here, this is illustrated by Roemer's comparison of his criterion with the egalitarian-equivalent criterion in the context of distribution of a fixed quantity of resources as well as in the context of optimal taxation. I have argued here that Roemer's approach to reward should be considered relevant not just for specific spheres but also for social justice.

A debate about liberal reward versus utilitarian reward therefore appears useful. I believe there are good arguments in favour of liberal reward as far as utilities (as distinct from preferences) are concerned, but, beyond that, the egalitarian-equivalent approach I have proposed is not giving much weight to the principle of liberal reward, and I agree with Roemer that liberal reward does not deserve a high rank in the ladder of values. But there is no element of utilitarian reward at all in the egalitarian-equivalent approach. Moreover, it is fair to acknowledge that the economic theory of fairness, which is less narrowly welfarist than Roemer's approach because it allows the distribution of resources to be part of the description of morally relevant consequences, does give serious ethical arguments in favour of the market not as a procedure but as a way of respecting preferences and equalizing the objects of preferences across individuals. But the egalitarian-equivalent approach is less market oriented than such arguments would warrant and it appears somewhat closer to the welfarist approach without espousing it.

Roemer's generalized criterion is a nice way of softening the utilitarian reward approach. Although his generalized criterion and the egalitarian-equivalent criterion remain quite different in their construction, one sees in Roemer's examples that his generalization allows his criterion to come closer to the policy conclusions of the egalitarian-equivalent criterion.

Softening the standard reward approach to equal opportunity is a move that has been called for by the critics of luck egalitarianism. Roemer's approach to such softening is natural in the context of classical social welfare functions, as it simply involves introducing inequality aversion where there was none. The alternative softening strategy I have proposed rejects the whole responsibility logic and replaces it with respect for preferences. This turns out to justify a weak form of liberal reward, and egalitarian equivalence appears to remain a viable form of solution in this approach. Therefore, even after this softening 'reform' of luck egalitarianism, the debate between (generalized) utilitarian reward and liberal reward remains relevant.

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