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## The liberal egalitarian paradox

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# MEMORANDUM

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*Alexander W. Cappelen and Bertil Tungodden*

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# The liberal egalitarian paradox<sup>\*</sup>

Alexander W. Cappelen<sup>†</sup> and Bertil Tungodden<sup>‡</sup>

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## Abstract

A liberal egalitarian theory of justice seeks to combine the values of equality, personal freedom and personal responsibility. It is considered a much more promising position than strict egalitarianism, because it supposedly provides a fairness argument for inequalities reflecting differences in choice. However, we show that it is not possible to fulfil this ambition. Inequalities can only be justified on the basis of incentive considerations within a liberal egalitarian framework. Moreover, we demonstrate that there is a surprisingly thin line between strict egalitarianism and libertarianism, which implies that liberals easily may end up as libertarians if they weaken their egalitarian ambitions.

## 1 Introduction

Liberal egalitarian theories of justice seek to combine the values of equality, personal freedom and personal responsibility. The contemporary focus on this relationship can be traced back to the seminal work of Rawls (1971), but it has historical roots both in the US Declaration of Independence (1776) and the French Declaration of the Rights of Man and Citizen (1789). These societies developed in rather different directions, though, and as noted by

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Nagel (2002, p. 88), “what Rawls has done is to combine the very strong principles of social and economic equality associated with European socialism with the equally strong principles of pluralistic toleration and personal freedom associated with American liberalism, and he has done so in a theory that traces them to a common foundation.” The ideas of Rawls have been developed further, notably by Dworkin (1981), Arneson (1989), Cohen (1989), Roemer (1993, 1996, 1998), and Fleurbaey (1995a,b), where the main achievement has been to include considerations of personal responsibility in egalitarian reasoning. The dominating modern egalitarian view is that people, within a framework offering equal opportunities and respecting personal freedom, should be held responsible for their accomplishments.<sup>1</sup>

This perspective is also very much in line with moral intuitions present in modern societies. By way of illustration, in a recent study of moral opinions on distributive justice in Norway, the statement that we should accept inequalities due to personal choices gained the support of 87% of respondents. Equally interesting, 88% of respondents agreed to the claim that people exercising the same labour effort should receive the same income, and close to half of the sample (48%) endorsed the view that inequalities due to factors beyond a person’s control should be eliminated. In contrast, only 12% of respondents supported the view that income should be distributed on the basis of needs.<sup>2</sup> In a similar vein, based on several surveys of attitudes to welfare policies, Bowles and Gintis (2000, p. 47) conclude that “...egalitarian policies that reward people independent of whether and how much they contribute to society are considered unfair and are not supported, even if the intended recipients are otherwise worthy of support.”<sup>3</sup>

The liberal egalitarian view is considered to be a much more promising position than standard strict (or outcome) egalitarianism. Strict egalitarianism does not allow any inequality among individuals, and hence is not at all sensitive to individual differences in choices. It can be criticized on two accounts. First, it is inefficient; second, it is unfair. The former criticism is well known and shared by most consequentialistic theories of justice, but is not the only reason liberal egalitarians object to strict egalitarianism. Liberal egalitarians also find it *fair* that people are held responsible for their choices.

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<sup>1</sup>For critical reviews of this position, see Fleurbaey (1995c) and Anderson (1999).

<sup>2</sup>The study was organized by Alexander Cappelen, in collaboration with Steinar Strøm and Tone Ognedal at the University of Oslo. The sample consisted of 1062 individuals in all age groups above 15 years. Further details of the study are available upon request.

<sup>3</sup>See also Fong (2001).

The difference between these two arguments can be most easily seen in situations where there are no incentive problems. To exemplify, assume that the supply of labour is inelastic. In this case, there is no incentive argument for an unequal distribution of income (and hence the inefficiency argument against strict egalitarianism vanishes). A liberal egalitarian, however, will claim that people should be held responsible for their choices even in this situation, and thus may find an unequal income distribution fair if it reflects differences in labour effort. However, in this paper, we present the liberal egalitarian paradox, showing that this position is not compatible with reasonable liberal and egalitarian conditions. We do this by establishing that liberal egalitarianism *easily* collapses into strict egalitarianism in situations where there are no incentive problems.

In the discussion of this paradox, we will not limit ourselves to any particular view on what should be the appropriate equalisandum (see, for example, Sen (1992) and Fleurbaey (1995a)). It may be utility, income, primary goods, capabilities or something else. To make things simple, though, we will refer to the equalisandum as income. What is important, is that individual income (or some other equalisandum) is affected both by factors beyond and factors within a person's control. Factors beyond a person's control are often thought of as race, educational background, social environment and talent, whereas our notion of factors within a person's control is (understandably) fuzzier. But any modern society makes judgments on how responsible a person is for particular actions, even though it is hard to delineate the metaphysical or neurophysiological basis for such an evaluation. We will have this politically revealed notion of individual responsibility in mind in our discussion.<sup>4</sup> Again for simplicity's sake, let us refer to factors considered under a person's control as *effort* and factors considered beyond a person's control as *talent*, where effort and talent may be seen as indices constructed on the basis of a broader set of variables.<sup>5</sup>

So what should a liberal egalitarian redistribution system look like? In order to answer this question, we have to define more precisely our understanding of liberal egalitarianism. Inspired by Rawls (1971), we claim that any liberal egalitarian redistributive system should (at least) satisfy the following three minimal conditions, one egalitarian and two liberal. First, the

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<sup>4</sup>The concept of personal responsibility is compatible with a naturalistic and deterministic account of the world (see, for example Dennett (2003)).

<sup>5</sup>As illustrated by Roemer (2002), there are a number of ways of operationalizing these variables in empirical analysis.

redistributive system should eliminate income differences due to differences in talent (but it might still allow inequalities due to differences in effort); second, it should not force anyone to work; and, finally, it should not discriminate among individuals on the basis of their personal choices. It turns out that there is only one general redistributive system satisfying all three demands, to wit strict egalitarianism. Hence, any liberal egalitarian redistribution system rewarding effort must violate at least one of these three conditions in some situations.

After describing the formal framework in section 2, we present the liberal egalitarian paradox in section 3. As a response to the paradox, some liberals may consider weakening their egalitarian ambitions. In section 4, we show that if, at the same time, they endorse another commonly held moral intuition, they have to endorse libertarianism. Hence, surprisingly, there seems to be a thin line between strict egalitarianism and libertarianism. Section 5 contains some further discussion of our interpretation of these results.

## 2 Formal framework

Consider a society with a population  $N = \{1, \dots, n\}$ ,  $n \geq 6$ , where agent  $i$ 's effort is  $e_i$  and her talent is  $t_i$ .<sup>6</sup> We assume that  $e_i, t_i \in \mathfrak{R}$ , where  $\mathfrak{R}$  is the set of real numbers. Let  $\Omega^E \subseteq \mathfrak{R}$  be the set of possible effort levels and  $\Omega^T \subseteq \mathfrak{R}$  be the set of possible talent levels. The pre-tax income function  $f : \Omega \rightarrow \mathfrak{R}$ , where  $\Omega = \Omega^E \times \Omega^T$ , is assumed to be non-decreasing in effort and strictly increasing in talent. Let  $a_i = (a_i^E = e_i, a_i^T = t_i)$  be a characteristics vector of  $i$  and  $a = (a_1, \dots, a_n)$  a characteristics profile of society.

Define  $\Omega_i \subset \mathfrak{R}^2$  as the set of possible characteristics vectors of person  $i$ , where for any  $i \in N$  and  $a_i, \tilde{a}_i \in \Omega_i$ ,  $a_i^T = \tilde{a}_i^T$ . In other words, we do not consider interprofile conditions with respect to talent, but assume that there is a single characteristics profile of talent in society.<sup>7</sup> In order to make the model relevant for our study, though, we assume that there are differences in talent and that there are always more than two people at each talent level, i.e., for any  $j \in N$  there exists  $k, l, m \in N$  such that  $a_j^T = a_k^T = a_l^T \neq a_m^T$ . We also assume that there exist some unproductive persons in society,

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<sup>6</sup>The framework of this paper is a modified version of the framework introduced by Bossert (1995) and Bossert and Fleurbaey (1996).

<sup>7</sup>See Fleurbaey and Maniquet (1999) for a related analysis using interprofile conditions with respect to talent.

and refer to their talent level as  $t^{\min}$ , where  $t^{\min} \leq t$  for every  $t \in \Omega^T$  and  $f(t^{\min}, e_i) = 0, \forall e_i \in \Omega^E$ . These assumptions should be uncontroversial to make in the study of redistribution in large societies.

Let  $\Omega_i^E$  be the set of possible effort levels for person  $i$ , where we assume that for any  $j, k \in N$ ,  $\Omega_j^E = \Omega_k^E$ . Moreover, define  $e^{\min}$  as the effort level reflecting that a person does not work, where  $e^{\min} \leq e$  for every  $e \in \Omega^E$  and  $f(t_i, e^{\min}) = 0, \forall t_i \in \Omega^T$ . We assume that everyone can, at least, choose between working and not working, i.e.,  $a_i = (e^{\min}, a_i^T), \tilde{a}_i = (\tilde{a}_i^E > e^{\min}, a_i^T) \in \Omega_i, \forall i \in N$ , but do not impose any further restrictions on the set of effort levels. Hence, the framework covers both continuous and discrete cases. Define  $\hat{a}$  as the situation where everyone exercises minimum effort, i.e.,  $\hat{a}_i^E = e^{\min}, \forall i \in N$ .

Let  $\Omega^N = \Omega_1 \times \Omega_2 \times \dots \times \Omega_n$  be the set of possible characteristics profiles of society, where  $\Omega^N \subset \mathfrak{R}^{2n}$ . The aim of the analysis is to see whether it is possible to establish an *independent* fairness argument for holding people responsible for their effort. For this purpose, it is necessary to rule out incentive considerations from the analysis, which we do by assuming that people have inelastic effort supply with respect to the design of the redistribution mechanism. This implies that all allocations of post-tax income will be Pareto optimal (as long as we assume that people have self-interested preferences and a positive marginal utility of income). We pay attention only to information about effort and talent levels when choosing among Pareto optimal allocations, and thus our object of study can be described as a redistribution mechanism  $F: \Omega^N \rightarrow \mathfrak{R}^n$ . We assume that  $F$  satisfies the no-waste condition  $\sum_{i=1}^n F_i(a) = \sum_{i=1}^n f(a_i), \forall a \in \Omega^N$ .

In our discussion of the core results of this paper, we will show the implications of slightly restricting the domain of  $F$ . We will consider  $\tilde{\Omega}^N \subset \Omega^N$ , where for every  $a \in \tilde{\Omega}^N$  and every  $j \in N$ , there exists some  $k \in N$  such that  $a_k^T = a_j^T$  and  $a_k^E = e^{\min}$ . This says that in any situation there is at least one person from each talent group in society who does not work, which should be a reasonable framework for studying redistribution in pluralistic societies.

We will be concerned with two specific redistribution functions, strict egalitarianism and libertarianism. The strict egalitarian redistribution mechanism always assigns the same post-tax income to everyone,

$$F_k^{SE}(a) = \frac{1}{n} \sum_{i \in N} f(a_i), \forall k \in N, \forall a \in \Omega^N,$$

whereas the libertarian redistribution mechanism always gives individuals what they produce,

$$F_k^L(a) = f(a_k), \forall k \in N, \forall a \in \Omega^N.$$



These are two extreme positions, and the liberal egalitarian approach may be seen as an attempt to establish a reasonable compromise between them. However, as the analysis will reveal, this is no easy task.

### 3 The paradox

A liberal egalitarian redistributive system should satisfy some minimal egalitarian and liberal requirements. The core egalitarian intuition underlying the liberal egalitarian approach is the idea that a redistributive system should eliminate effects due to differences in factors outside the agents' control: "No one deserves his place in the distribution of natural endowments, any more than one deserves one's initial starting place in society." (Rawls, 1971, p. 74).<sup>8</sup> In our setting this implies that all individuals exercising the same effort should have the same income (independent of talent).

*Equal Income for Equal Effort (EIEE):* For any  $a \in \Omega^N$  and  $j, k \in N$ ,  $a_j^E = a_k^E \rightarrow F_j(a) = F_k(a)$ .

Notice that EIEE is consistent with huge inequalities in income as long as these inequalities correspond to differences in effort, and hence it is a much weaker requirement than strict egalitarianism.

A basic liberal intuition is that society should not restrict the choices available to people as long as these choices do not place restrictions on other people's freedom to choose (see the first principle of justice in Rawls (1971) for a general expression of this intuition). A very weak version of this requirement is to demand that no one should be forced to work. In a liberal society, if people want to dedicate themselves to non-income-generating activities, then, independent of their talent, the tax system should not restrict this possibility. In our framework this can be captured by demanding that people who do not work should not pay taxes, because imposing a tax on these people would eliminate the possibility of choosing the non-work option.

*No Forced Labour (NFL):* For any  $a \in \Omega^N$  and  $i \in N$ , where  $a_i^E = e^{\min}$ ,  $F_i(a) \geq f(a_i) = 0$ .

Another basic liberal intuition is that a society should be neutral between different choices people make (Rawls 1971, p. 94). How can we capture this

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<sup>8</sup>Interestingly, a similar view is expressed by Mirrlees (1971, p. 120) in his seminal paper on optimal income taxation, where he points out the great desirability of finding some effective redistribution mechanism that offsets "the unmerited favours that some of us receive from our genes and family advantages."

intuition within the present framework? Consider a situation where we have a just distribution of income. Then one person changes her effort. Suppose she is rewarded with more (less) than her marginal productivity. This will create a deficit (surplus) that has to be shared by the others. We propose that a liberal society should distribute this deficit (surplus) equally among people with the same talent (which implies that they get the same loss (gain) in post-tax income in this situation). To do otherwise would be to discriminate between people on the basis of their choices.

*Neutrality Between Choices (NBC):* For any  $a, \tilde{a} \in \Omega^N$  and  $j, k \in N$ ,  $a_j^T = a_k^T$  and  $j, k \in \{i \in N \mid a_i^E = \tilde{a}_i^E\} \rightarrow F_j(a) - F_j(\tilde{a}) = F_k(a) - F_k(\tilde{a})$ .

Strict egalitarianism satisfies all three requirements, but violates even a minimal responsibility requirement that there should be at least one situation in which a person exercising high effort gets a higher post-tax income than a person with the same talent exercising low effort.

*Minimal Responsibility (MR):*  $\exists a \in \Omega^N$  and  $j, k \in N$ , where  $a_j^T = a_k^T$  and  $a_j^E > a_k^E$ , such that  $F_j(a) > F_k(a)$ .

Surprisingly, it turns out that it is not possible to satisfy MR within the framework of these three basic requirements. Given the ambition of liberal egalitarian theories to develop an alternative justification for rewarding effort, the following proposition can be described as the liberal egalitarian paradox.

**Proposition 1** *There does not exist any redistribution mechanism  $F$  satisfying EIEE, NFL, NBC and MR.*

**Proof.** We prove that any redistribution mechanism satisfying EIEE, NFL and NBC must violate MR.

(1) Suppose there exists  $a \in \Omega^N$  and  $j, k \in N$ , where  $a_j^T = a_k^T$ ,  $a_j^E > a_k^E$  and  $F_j(a) > F_k(a)$  (i.e.,  $F_j(a) - F_k(a) > 0$ ).

(2) Consider  $\tilde{a} \in \Omega^N$  and  $l, m \in N$ , where  $a_l^T = a_m^T = t^{\min}$  and  $\tilde{a}_l^E = a_j^E, \tilde{a}_m^E = a_k^E$ , and  $\tilde{a}_i^E = a_i^E, \forall i \neq l, m$ . It follows from NBC that  $F_j(a) - F_k(a) = F_j(\tilde{a}) - F_k(\tilde{a})$ . By EIEE,  $F_l(\tilde{a}) = F_j(\tilde{a})$  and  $F_m(\tilde{a}) = F_k(\tilde{a})$ , which implies  $F_l(\tilde{a}) - F_m(\tilde{a}) = F_j(a) - F_k(a)$ . Hence, taking into account (1), we have that  $F_l(\tilde{a}) - F_m(\tilde{a}) > 0$ .

(3) Consider  $\hat{a} \in \Omega^N$ , where  $\hat{a}_l^E = \tilde{a}_l^E, \hat{a}_m^E = \tilde{a}_m^E$  and  $\hat{a}_i^E = e^{\min}, \forall i \neq l, m$ . By NFL and the no-waste condition,  $F_i(\hat{a}) = 0, \forall i$ . This implies  $F_l(\hat{a}) - F_m(\hat{a}) = 0$ . Hence, taking into account (2), we have that  $F_l(\hat{a}) - F_m(\hat{a}) \neq F_l(\tilde{a}) - F_m(\tilde{a})$ . But this violates NBC and thus the supposition in (1) is not possible. The result follows. ■

The paradox shows that no liberal egalitarian theory can justify rewarding effort among equally talented people. If people have the same talent, then they must always receive the same post-tax income. This implies, as we will return to shortly, that strict egalitarianism is the only viable alternative. Notice, however, that both the egalitarian and the two minimal liberal requirements are needed in order to violate MR. If we drop EIEE, then libertarianism (among other mechanisms) becomes available. If we drop either NFL or NBC, we may adopt a number of egalitarian redistribution mechanisms.<sup>9</sup>

Let us now show that liberal egalitarianism easily collapses into strict egalitarianism if we strengthen our domain restriction slightly.

**Proposition 2** *Given restricted domain richness, a redistribution mechanism  $F$  satisfies EIEE, NFL and NBC if and only if  $F = F^{SE}$ .*

**Proof.** The if part is trivial, and hence we will prove only the only-if part.

(1) Let us show that the proof of Proposition 1 is valid within the restricted domain. In order to do that, we have to show that each of the characteristics profiles used in the proof is also a member of the restricted domain. First, consider  $\tilde{a}$ . By restricted domain richness, we know that there exists some  $r \in N$  such that  $a_r^E = e^{\min}$  and  $a_r^T = t^{\min}$ . If we assume that  $l, m \neq r$ , which is admissible because by definition there are more than two individuals at each talent level, then it follows that  $\tilde{a} \in \tilde{\Omega}^N$ . Second, by the fact that the only difference between  $\tilde{a}$  and  $\hat{a}$  is that more people exercise minimum effort, it follows immediately that  $\hat{a} \in \tilde{\Omega}^N$ . Hence, we know that for any  $a \in \tilde{\Omega}^N$  and  $j, k \in N$ , where  $a_j^T = a_k^T$  and  $a_j^E = e^{\min}$ ,  $F_j(a) = F_k(a)$ . We will now show that also for any  $s \in N$ , where  $a_s^T \neq a_j^T$ ,  $F_s(a) = F_j(a)$ .

(2) By restricted domain richness, there exists  $u \in N$  such that  $a_u^T = a_s^T$  and  $a_u^E = e^{\min}$ . By EIEE,  $F_u(a) = F_j(a)$ . Moreover, by Proposition 1,  $F_s(a) = F_u(a)$ , and the result follows. ■

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<sup>9</sup>The so-called egalitarian equivalent mechanism, introduced by Bossert and Fleurbaey (1996), giving people the same fixed reward for each effort level and then distributing the net deficit (surplus) equally among all individuals, satisfies EIEE, NBC and MR, but violates NFL. The proportional egalitarian equivalent mechanism, introduced by Cappelen and Tungodden (2003b), which is equal to the egalitarian equivalent mechanism except for the fact that it distributes the net deficit (surplus) proportional to post-tax income, satisfies EIEE, NFL and MR, but violates NBC. See Cappelen and Tungodden (2003a,b) for other examples.

In sum, the two propositions show that it is not possible to provide an independent fairness argument for rewarding effort within a liberal egalitarian framework. If egalitarians do not want to discriminate between choices or restrict people's freedom, then they have to consider strict egalitarianism as the fair solution. Any deviation from strict egalitarianism has to be justified on the basis of incentive considerations.

## 4 Libertarianism

Liberals in general are not necessarily committed to egalitarianism, and hence may, on the basis of the paradox, consider weakening their egalitarian ambitions and seek alternative redistributive mechanisms within the framework of NFL and NBC. But what alternatives are there? The minimal liberal conditions are consistent with a wide range of redistribution mechanisms, including strict egalitarianism and libertarianism. It turns out, however, that if we combine this framework with a commonly shared moral intuition that individuals not exercising any effort should not be subsidized, we do not have much choice.<sup>10</sup>

*No Subsidy without Effort (NSE):* For any  $a \in \Omega^N$  and  $i \in N$ ,  $F_i(a_i^T, e^{\min}) \leq 0$ ,  $\forall i \in N$ .

It follows immediately that by combining NSE and NFL, we have the following condition.

*No Income without Effort (NIE):* For any  $a \in \Omega^N$  and  $i \in N$ ,  $F_i(a_i^T, e^{\min}) = 0$ ,  $\forall i \in N$ .

NIE is clearly compatible with a wide range of liberal positions, including a number of egalitarian redistribution mechanisms satisfying EIEE. But together with NBC, it implies that the difference in post-tax income between two individuals with the same talent equals the difference in their pre-tax income.

**Proposition 3** *If  $F$  satisfies NBC and NIE, then for any  $a \in \Omega^N$  and  $j, k \in N$ , where  $a_j^T = a_k^T$ ,  $F_j(a) - F_k(a) = f(a_j) - f(a_k)$ .*

**Proof.** (1) Suppose there exists  $a \in \Omega^N$  and  $j, k \in N$ ,  $a_j^T = a_k^T$  and  $F_j(a) - F_k(a) \neq f(a_j) - f(a_k)$ . In this case, given our framework, there also exists some  $l \neq j, k$  such that  $a_l^T = a_j^T$ .

<sup>10</sup>See also Moulin and Roemer (1989) and Fleurbaey and Maniquet (1999) for analyses of the link between strict egalitarianism and libertarianism.

(2) Consider  $\tilde{a} \in \Omega^N$ , where  $\tilde{a}_j^E = a_j^E, \tilde{a}_k^E = a_k^E, \tilde{a}_i^E = e^{\min}, \forall i \neq j, k$ . From NBC we know that  $F_j(\tilde{a}) - F_k(\tilde{a}) = F_j(a) - F_k(a)$ . From NIE we know that  $F_i(\tilde{a}) = 0, \forall i \neq j, k$ , and hence that  $F_j(\tilde{a}) - F_l(\tilde{a}) = F_j(\tilde{a})$ .

(3) Suppose  $F_j(\tilde{a}) = f(a_j)$ . From (2) and the no-waste condition,  $F_j(\tilde{a}) + F_k(\tilde{a}) = f(\tilde{a}_j) + f(\tilde{a}_k) = f(a_j) + f(a_k)$ , and hence  $F_k(\tilde{a}) = f(a_k)$ . But this implies that  $F_j(\tilde{a}) - F_k(\tilde{a}) = F_j(a) - F_k(a) = f(a_j) - f(a_k)$ , which violates the supposition in (1). Hence, given the supposition in (1), the supposition in the beginning of this paragraph cannot be correct, and we have that  $F_j(\tilde{a}) \neq f(a_j)$ .

(4) Consider  $\hat{a} \in \Omega^N$ , where  $\hat{a}_j^E = a_j^E, \hat{a}_i^E = e^{\min}, \forall i \neq j$ . From NIE we know that  $F_i(\hat{a}) = 0, \forall i \neq j$ , and hence from the no-waste condition,  $F_j(\hat{a}) - F_l(\hat{a}) = f(a_j)$ . Taking into account (2) and (3), we have that  $F_j(\tilde{a}) - F_l(\tilde{a}) = F_j(\tilde{a}) \neq f(a_j) = F_j(\hat{a}) - F_l(\hat{a})$ . But this violates NBC, and hence the supposition in (1) is not possible. The result follows. ■

It follows immediately that the framework of Proposition 3 violates EIEE if people differ in marginal productivity. More interestingly, by adopting the stricter domain restriction, we can see that the two conditions leave us with no other option than libertarianism.

**Proposition 4** *Given restricted domain richness, a redistribution mechanism  $F$  satisfies NBC and NIE if and only if  $F = F^L$ .*

**Proof.** The if part is trivial, hence we prove only the only-if part.

(1) Consider any  $a \in \tilde{\Omega}^N$  and  $j \in N$ . By restricted domain richness, there exists  $k \in N$  such that  $a_k^T = a_j^T$  and  $a_k^E = e^{\min}$ . By NIE,  $F_k(a) = 0$  and hence  $F_j(a) - F_k(a) = F_j(a)$ .

(3) Consider  $\tilde{a} \in \tilde{\Omega}^N$ , where  $\tilde{a}_j^E = a_j^E$  and  $\tilde{a}_i^E = e^{\min}, \forall i \neq j$ . By NIE,  $F_i(\tilde{a}) = 0, \forall i \neq j$ . By the no-waste condition,  $F_j(\tilde{a}) = f(\tilde{a}_j)$  and thus  $F_j(\tilde{a}) - F_k(\tilde{a}) = f(\tilde{a}_j)$ . By NBC,  $F_j(\tilde{a}) - F_k(\tilde{a}) = F_j(a) - F_k(a)$ . Taking into account (1), this implies  $F_j(a) = f(\tilde{a}_j) = f(a_j)$ , and the result follows. ■

The intuition behind this result is straightforward. By the restricted domain richness assumption, for any talent represented in society, there is always someone with minimum effort. According to NIE, this group should not be affected by a change in the effort level of someone else. NBC, however, demands equal treatment of people with the same talent in these cases and thus no-one can be affected when another person changes her effort. Consequently, it follows from the no-waste condition and NIE that all individuals must receive exactly what they produce.

Notice that the propositions in this section provide a justification for the libertarian position without taking into account incentive considerations. If we do not want to discriminate between people's choices and find it reasonable to neither subsidize nor tax people who do not exercise any effort, then we have to endorse libertarianism.

## 5 Concluding remarks

The liberal egalitarian paradox illustrates a basic tension between liberal and egalitarian ideals. It shows that if we combine the egalitarian ideal of equal opportunity with the liberal aim of holding people responsible for their choices, then we sometimes will infringe on people's freedoms and liberties. This conflict will, of course, not be present in all situations. However, the fact that there exists no other mechanism than strict egalitarianism respecting three minimal liberal egalitarian requirements within a reasonable set of first best economies, proves that it is impossible to establish an independent fairness argument for rewarding effort within a liberal egalitarian framework. Notice that each of the three conditions, independently, is consistent with a wide range of redistribution mechanisms. It is only in combination, as a minimal expression of liberal egalitarianism, that they leave us with no other choice than strict egalitarianism

In establishing this result, we have assumed that there are some unproductive individuals in the economy. This assumption should be reasonable within large societies, but is not at all essential. If we drop it, then it follows straightforwardly from the analysis that the marginal productivity of the least advantaged still seriously restricts the possibility of rewarding effort within a liberal egalitarian framework. Moreover, we have worked within first best economies, which often is seen as a limitation of the analysis. But this is not the case in the present context. On the contrary, to focus solely on first best economies is necessary in order to separate fairness and incentive considerations in a discussion of how to justify rewarding effort.

In sum, in line with Rawls (1971), the analysis demonstrates that only incentive considerations can provide a rationale for deviating from strict egalitarianism within a liberal egalitarian framework. At the same time, we show that even though strict egalitarianism and libertarianism represent completely opposite views on how to reward effort, they share a common liberal core. None of the positions forces people to work or discriminate be-

tween life plans. This explains why there is a surprisingly thin line between strict egalitarianism and libertarianism, and why liberals may easily end up as libertarians if they weaken their egalitarian ambitions.

Taken together, the results in this paper illustrate that it is inherently difficult to fulfil the liberal egalitarian ambition of establishing a middle way between strict egalitarianism and libertarianism.

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