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Justice And Pareto-Efficiency (The Case Against Coase)

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Abstract

This paper will have the following logical structure. First, what will be presented is the libertarian theory of homesteading coupled with its justification. Second, I will argue for Pareto-efficiency– as opposed to Marshall-efficiency– as the only scientifically sound concept of efficiency. Then, whenever it can be detected that utilitarians resort to Marshall-efficiency, their claim to satisfactorily explain the distribution of rights can be dismissed out of hand. The attempts to rebut utilitarianism will be particularly directed against the famous Coase theorem. On the other hand, if natural-rights libertarianism proves to go hand in hand with Pareto-efficiency, it is the stronghold of the said libertarianism which will be further solidified.

1. Introduction

Our main task is to explore the relation between justice and types of efficiency. The first and foremost methodological provision that must obtain (under the pains of vicious cirle) is that justice cannot be defined in terms of efficiency and vice versa. Otherwise the whole enterprise would be question-begging. In particular, we cannot treat justice as something secondary and merely derivative of purely economic (or utilitarian) calculations. Then again, what we would end up with would be a concealed tautology (justice is economic efficiency), which, when unraveled, would assume the form of the explicit tautology: economic efficiency is economic efficiency. Furthermore, we cannot disguise justice as Pareto-efficiency. If we simply identify justice with actions that are Pareto-optimal moves; in other words, if justice is fully reducible to Pareto-efficiency, then it is no discovery to claim that justice is co-extensive with Pareto efficiency. The very co-extensiveness would derive then not from any discovery but from the fact that justice was defined solely in terms of Pareto-efficiency. In conclusion, the necessary and sufficient condition for investigating the relation between justice and efficiency is that they both must be conceptually distinct. It is natural-rights libertarianism that yields itself smoothly to our analysis, which is due to the fact that the institutions it stands for (private property being the most distinguished one) are propounded regardless of the consequences for utility. I shall later argue that natural-rights libertarianism, which provides the intuitively adequate

account of justice, is compatible with one type of efficiency, namely Pareto-efficiency.[1] Therefore, there is no logical fallacy in exploring the relation between, say, private property or freedom of exchange and efficiency. The necessary and sufficient condition is met: neither is defined in terms of the other.

On the other hand, to argue against utilitarianism, we can play their game admitting for the sake of argument that justice is conditioned on utility and then discredit the whole idea of utility as unscientific by pointing at the problems raised by Marshall-efficiency, which is after all the standard utilitarian tool.[2][3] If Marshall-efficiency is proved wrong, it must mean that utilitarianism fails to provide any coherent account of justice, and thus must be dismissed, which gives way to natural-rights libertarian account. Alternatively, we could claim that since utilitarianism perceives justice as secondary and based on utility, it stretches the notion of justice or worse, it stipulates a different concept of justice (this time defined in terms of utility). We will focus on the former strategy, while the latter seems to lead to a small and purely semantic victory. What we need now is the description and justification of the libertarian theory of justice before we examine the relation between justice as conceived of by natural-rights libertarians and the only scientifically valid concept of efficiency, which is Pareto-efficiency.

2. Some aspects of the libertarian theory of justice

Despite the seemingly large scope of this section, what we are going to focus on is the libertarian theory of appropriation (in particular, the homestead principle and the voluntary exchange). These two will serve as a benchmark by dint of which we will compare the correspondences between the idea of justice as advocated by natural-rights libertarians and Pareto-efficiency. On the other hand, we will confront the above correlations (if they prove to be ones) with the utilitarian solutions and try to examine whether the latter can be reconciled with the concept of Pareto-efficiency or only at best with Marshall-efficiency. If, as stated in the previous section, utilitarian pretenses for justice rest merely on Marshall-efficiency, which is arguably scientifically invalid, then utilitarian account of justice is to be dismissed. If libertarian theory of justice can be justified and if it proves to correspond with Pareto-efficiency, the victory will be full. So, let us embark on first describing the libertarian theory of appropriation making some methodological provisions first.

It must be noted that natural-rights libertarianism considers the just assignment of property titles not paying the slightest attention to utility or economic efficiency. Therefore, it is logically sound to study the relation between justice thus conceived and economic efficiency since

1 Incidentally, one side remark is worthy of being made. If what is at stake in the debate between utilitarianism and natural-rights libertarianism is liberty, then we might obviously argue for the justification of liberty on libertarian grounds, that is without any references to efficiency and *a fortiori* Pareto-efficiency. Still, to demonstrate that justice and Pareto-efficiency are logically equivalent would be a very welcome result indeed. On the other hand, to disclaim Marshall-efficiency, which is a representative utilitarian instrument, means to automatically refute any utilitarian pretenses to account for justice at one stroke.

2 On utilitarianism analysed in detail and on Scanlonian Individualist Restriction, which is aimed at avoiding interpersonal comparisons of utility, see: D. Parfit, *On What Matters* vol.II, Oxford University Press, 2011, p. 193–212.

3 On Marshall-efficiency and Pareto-efficiency, see: D. Friedman, *Law's Order,* Princeton University Press, 2000, p.19-26.

the former makes no references at all to the latter. Any discoveries then are synthetic and cannot be logically fallacious (*petitio principii* is therefore ruled out). Let's first describe homestead principle and then let's invoke its justification.

Homestead principle claims to account for the problem of who is the rightful owner of a given property. Its merits are non-arbitrariness and its simplicity. It found an exquisitely eloquent expression in Rothbard's Ethics of Liberty: "(...) But this is precisely what the pioneer– the homesteadee– does when he clears and uses previously unused virgin land and brings it into his private ownership. The homesteader– just as the sculptor, or miner– has transformed the nature-given soil by his labour and his personality. The homesteader is just as much a "producer" as the others, and therefore just as legitimately the owner of his property. (...) The pioneer, the homesteader, is the man who first brings the valueless unused natural object into production and use".[4] Obviously, that principle seems quite natural and it seems sound that the first-comer is granted the property rights; yet, we can further justify it by quoting Hans-Hermann Hoppe on the subject. Hoppean justification is teleological by nature and makes ample use of the idea of conflict-avoidance: "Further, if one were not allowed to appropriate other resources through homesteading action, i.e., by putting them to use before anybody else does, or if the range of objects to be homesteaded were somehow limited, this would only be possible if ownership could be acquired by mere decree instead of by action. However, this does not qualify as a solution to the problem of ethics, i.e., of conflict-avoidance, even on purely technical grounds, for it would not allow one to decide what to do if such declarative claims happened to be incompatible (...)Thus, anyone denying the validity of the homesteading principle—whose recognition is already implicit in arguing two persons' mutual respect for each other's exclusive control over his own body—would contradict the content of his proposition through his very act of proposition making"[5] Hoppe alludes to performative contradiction, that is that one cannot deny the principle of homesteading argumentatively because the very act of denial presupposes at least the ownership of one's vocal cords and thus the respect for the ownership of our interlocutor's body. Now we need to focus on the concept of voluntary exchange because first and foremost it sheds more light on the libertarian idea of justice and second, it will play some role when we will compare the predictions for the economic efficiency made by natural-right libertarianism and by Coasean solutions to the problem of rights distribution.

Murray Rothbard claims that any exchange of commodities is really an exchange of the rights to ownership: "(...) When Smith exchanges a bad of apples for Jones's pound of butter, he is actually transferring the ownership rights in the apples in exchange for the ownership rights to the butter, and vice versa".[6] That is the point; exchanging commodities does not after all imply any physical movement of the goods exchanged but merely the fact that the property rights in them were swapped. Thus, voluntary exchange can be traced back to the original appropriation, which means

4 M.Rothbard, *Ethics of Liberty*, New York University Press, New York 1998, p. 49.

5 H.-H. Hoppe, *The Ethics and Economics of Private Property,* Ludwig von Mises Institute, Auburn 2010, p. 199.

6 M. Rothbard, *Ethics*... p.36.

that whatever is subject to exchange must be first homesteaded (not counting the criminally derived titles[7]). So, we can conclude that the validity of voluntary exchange is fully derivative from the homestead principle, which was after all well-founded by the a priori argument by Hoppe. These two flag constituents of the libertarian social order constitute what we need for the forthcoming comparison between utilitarianism and libertarianism and their respective relations to Pareto- or Marshall-efficiency. But before we embark on that comparisons, let's clarify those two types of efficiency.

3. Two types of efficiency

There are two types of efficiency, which we are going to consider, that is Marshall-efficiency and Pareto-efficiency. These two are normally believed to make entirely different predictions. While Marshall-efficient moves occur whenever the overall utility increases, Pareto-efficient moves occur only when at least one person benefits at no expense to the others. In other words, Pareto-efficiency is about increasing at least one person's utility without decreasing anybody else's utility. To put it in terms of necessary and sufficient conditions, it is sufficient to increase overall utility for Marshall-efficiency to occur, whereas the same condition constitutes only a necessary condition for Pareto-efficiency. It is because Pareto-efficiency is supplemented with the proviso that nobody loses anything and at least there is somebody who gains something[8]. As already mentioned, utilitarianism is essentially concerned with Marshall-efficiency. As a reminder, our main weapon is Pareto-efficiency and the task is to show that what is just is Pareto-efficient but not necessarily Marshall-efficient. And if we manage to discredit Marshall-efficiency, we at one stroke discredit utilitarian account of justice (or the stipulated utility-based concept of justice). But first, let's look at the utilitarian attempts to defend Marshall-efficiency and then let's try to debunk them, thus arguing for Pareto-efficiency.

First of all, to clearly realize where Marshall-efficiency fails while Pareto-efficiency stands firm, we should take a closer look at the concept of *util.* Roughly speaking, util is an utilitarian measurement of happiness (pleasure or satisfaction if it makes any difference at all).[9] Obviously, a util is not a physical unit. It cannot by any means be intersubjectively verified. What is worse, as observed within Austrian School of Economics, utility cannot be stacked on any cardinal scale even if we only want to compare the utility of the same person at two different times or across the worlds (one being the actual and the other merely counterfactual).[10] Let's imagine a consumer who has just bought a bottle of Pepsi having believed *ex ante* that it would maximize his happiness under the present circumstances. Yet, *ex post* he realizes that he missed the fact that his local shop had supplied Coke too. He goes on to bitterly whisper to himself: "I would have been twice as happy as I am now had I bought Coke instead". The idea of the distance between the utilities is a nonsense. There is no way to

7 M. Rothbard, *Ethics* ...p. 51-63.

8 On the differences between Pareto-efficiency and Marshall-efficiency at length, see: David Friedman, *Hidden Order,* HarperBusiness, 1998, p. 217-227.

9 On utility/utils and the possible gauges thereof, see: Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation,* Create Space Independent Publishing Platform, 2015.

10 M.Rothbard, *Man, Economy and State,* Ludwig von Mises Institute, 2009, p.17-33.

measure cardinal utility. The consumer knows or believes e*x post* that he would have been happier having Coke. How much happier? It is a misguided question. According to Austrians, utility can be only understood in *ordinal* sequence.

There can emerge some attempt to try to measure utility in pecuniary units, say, dollars. The choice of the currency is of course arbitrary and harmless here. If one can ever express utility in dollars while dollars can obviously be expressed in any other currency (exchange rates), then one could in principle express utility in any currency. The point is that if utility can be somehow reflected in dollars, dollars being subject to cardinal measurements, then utility could be added, subtracted, multiplied and divided at least for the same person, which would be a very desirable outcome for utilitarians. The idea is as follows: even if we agree that utilities can be only listed in the ordinal sequence, this ordinality would be practically as good as cardinality if one condition is met. What it takes is to consult a given individual with two given goals (A and B) how many dollars he would have to be paid to resign from both of his goals respectively and how many dollars wouldn't be enough to make him relinquish both of them respectively. We can potentially ask infinitely many such questions each time trying to minimize the gap between those two monetary values just to get as good an approximation as possible. Let's illustrate the method with some specific example. Let's imagine Mark cherishes two main dreams, which are within his financial reach. The first one is to travel to Australia, and the less burning plan is to buy a motorbike. Now we can go on to consult Mark and ask him how many dollars we should pay him to resign from Australia. Mark is wondering for a little while and he finally says: "100.000 dollars". Second, we could ask him whether he would resign from Australia being paid 99.999 dollars and Mark says that one dollar in this case makes a huge difference. We can enquire further on and approximate in dollars the value of going to Australia with the accuracy of the quantum of this currency, which is a cent. It should be borne in mind that what we did was not to pinpoint the exact monetary value of the trip to Australia but to discover the fragment of Mark's ordinal preference scale. It looks as shown below in the descending order of importance.

1) 100.000 $
2) The trip to Australia
3) 99.999 $

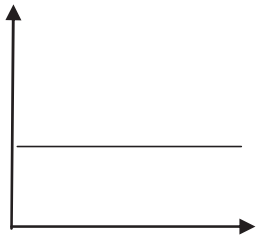
We can go on conducting the same experiment now trying to find out the approximate monetary value of Mark's buying a motorbike. Let's assume that Mark's reports indicate that for him the value of a motorbike lies between 5001 dollars and 4999 and instead of nagging Mark with further enquiries, we split the difference and complete his individual value scale with the new information. The scale looks now as follows:

1) 100.000 $
2) The trip to Australia
3) 99.999 $
…
n) 5001 $
o) buying a motorbike
p) 4999 $

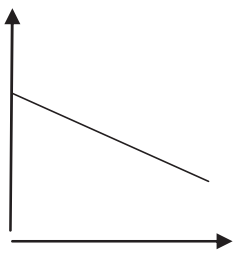
with the approximation with the accuracy of give-or-take one dollar. It seems that an utilitarian has made some progress, but it is just illusory. There are at least a few objections to the above analysis.

First, it might seem that since the value of the tip to Australia is estimated at about 10.000$ and the value of the motorbike at about 5.000$, we might conclude (and it is simple arithmetics) that the trip to Australia is about twice as a valuable as a motorbike. That inference is invalid due to the law of diminishing utility (REF). It is known that each consecutive dollar is valued less and less. The above utilitarian conclusion would obtain if and only if the utility of each dollar is constant.

Technically speaking, it would hold if utility as the function of the number of dollars already possessed would be constant. That is represented below with vertical axis standing for utility and the horizontal one for dollars.



The right function is a downward sloping curve. The angle of the curve depends on the individual and the way he or she values each consecutive dollar (obviously the valuations are not expressed in cardinal terms but only in ordinal terms; what we know is that we value the first dollars higher than the next ones but we cannot answer the question "how much higher?"). The graphic representation of the law of diminishing utility may looks as follows:



So, instead of concluding that the trip to Australia is about (with the accuracy to two dollars) twice as valuable as a motorbike, we must conclude that the trip to Australia is definitely less than twice as valuable as a motorbike since each consecutive dollars is less valuable than the previous one. Therefore, it is less than twice as much but how much less? We don't know and cannot know.[11] The second objection is delivered by the doctrine of the revealed preference. [12] The individual preference scales get it right but somehow backwards. The experimenter cannot fully trust the reported preferences scales until they are manifested in action. The apparent truth that the consumer is going to buy a bike for 4999$ should be bracketed until he does buy it at this price. It would conclusively demonstrate that he did value the bike more than 4999$. It leads us to our third objection. Once we conclusively showed that the consumer preferred the bike to 4999$, we can no longer test whether he would prefer to keep 5001$ to buying a motorbike. Now he has the bike, his demand for money is higher,

11 Strictly speaking, a careful reader might object that after all since the curve is continuous it cannot matter whether it is constant, linear or non-linear. In principle, having the approximation in dollars to the value of both the tip and the motorbike and a given curve of diminishing utility for a given individual, one can calculate the cardinal relation between the utility of the trip and the motorbike. The number would be an improper fraction expressed in utils. Obviously, the problem is the curves themselves. Neither vertical or horizontal axis cannot contain any cardinal numbers. What is higher in the vertical axis simply means "more" but there cannot be any indication of how much more. It stands for the transitive relation of "more than" but they cannot give us any clue about cardinal utility.

12 On the doctrine of the revealed preference, see: M. Rothbard, "Toward a Reconstruction of Utility and Welfare Economics", in *The Logic of Action One: Method, Money and the Austrian School*, London: Edward Elgar, 1997, p. 211-255.

which can change his subjective valuations. Now, when he is inquired whether he would sell the bike for 5001$, his answer might be different from the answer potentially given in the original situation when he had no bikes yet. Then again, once he bought the bike we can no longer investigate whether he would have preferred 5001$ to buying a bike in the original situation.

Since intrapersonal cardinal comparisons of utility fail, so must interpersonal comparisons. If saying: "I enjoy going to Australia twice as much as riding a motorbike" sounds very controversial what must sound monstrously erroneous is saying: "My drinking tea now gives me twice as much pleasure as your drinking coffee now" or "Given the wealth discrepancies between us (you being rich and me being poor), the utility of your marginal dollar is a millionth of the utility of my marginal dollar". Interpersonal comparisons must be even more suspicious than intrapersonal ones because in the latter there is at least the same point of view; in the former, there is not God point of view, from which one could appreciate the apparent utilities embodied in two distinct persons. So, whenever utilitarians claim that there was an increase in overall utility, we should first, to avoid confusion, ask whether what has been made was merely a Marshall- or Pareto-superior move. If it was merely the former, the result is not only far from conclusive but also it is confounding. David Friedman claims that Marshall-efficiency is a more powerful idea that Pareto-efficiency because, if wished, Marshall-efficiency is potentially Pareto-efficiency[13]. Let's focus on that assertion and evaluate its validity critically.

Let's study an easier case first.[14] Rob steals 100$ from Patricia only to earn 200$ on them. However controversial it is (see the preceding considerations), it might be claimed that the change was Marshall-efficient (the loss of 100$ incurred on one party was outweighed by the gain of 200$ by the other party).[15] In this case, if we, however unwillingly, admit that this sort of theft is Marshall-efficient, we can conclude it is potentially Pareto-efficient. For Pareto-superior move to occur, Rob pays Patricia some amount from the range <100,200> $. Two extreme points of that range are, by definition, Pareto-efficient because one person benefits while the other is not worse off. If the range is (100,200) $, two parties benefit by sharing the utility guaranteed by 100$. Obviously, the whole scenario is by necessity oversimplified. It doesn't address the problem that there is undeniably some psychological cost to being robbed in the first place. Second, Patricia might have a rather high time preference; so, at the moment of being given the money back, no amount at the range (100,200) might be sufficient as a compensation. Still, let's take the above scenario for granted and move on.

Let's now imagine there is a rich capitalist (hereinafter referred to as Roy) and a vagabond (hereinafter referred to as Mike). What happens when Mike steals a dollar from Roy? It could be believed that Marshall-efficiency sky-rocketed. Since Roy is rich, he cannot value this

13 David Friedman, *Hidden Order*...p.217––227.

14 What follows is the instantiation of the so-called Compensation Principle. On the said principle, see: M.Rothnard,*Ethics*...p. 204 and Walter Block "Coase and Dementz on Private Property Rights", *Journal of Libertarian Studies* 1 (Spring 1977), p. 111–115.

15 Obviously since the loss incurred on the person A, while the benefit is reaped by the person B– as concluded above– we cannot even be sure that it constitutes Marshall-efficiency.

marginal dollar highly and since Mike is poor, he must value his newly-gained marginal dollar hugely. Yet, we cannot conclude by any means that the overall utility has risen. It may be the case that Roy, being a rich capitalist, values that marginal dollar more than Mike (then the overall utility would drop). After all, Mike is a vagabond; so, it may be the case that Mike values his marginal hour of free time higher than his first dollar. He may have become a vagabond due to his predilection for free time in the first place. The opposite reasoning may apply to Roy. Roy is a capitalist because he has always valued his marginal dollars more than a single hour of free time (let's imagine he doesn't consume any free time; he only sleeps five hours and works until midnight). How then can we be sure that Mike gained more (utils?) than Roy lost? As usual, there is no way to arrive at any conclusions. What is worse, even if we, by a great stretch of imagination, believe that there occurred a Marshall-superior move, how can it be turned into Pareto-superior one? There was a transfer of one dollar between two parties. When Roy was bereft of one dollar, he inevitably suffered some loss of utility and Mike gained some. How can we made it Pareto-efficient? To compensate Roy, Mike should give him one dollar back but Mike would then lose allegedly huge utility. This consideration points to the stronger thesis that any redistribution cannot be made Pareto-efficient even if (and we would also deny it) it is Marshall-efficient.

Summarizing, Marshall-efficiency is at best a feeble concept since it heavily relies on interpersonal comparisons of utility. Therefore, even if our first scenario (Rob stealing money from Patricia just to make some profit and give her back more than he had stolen) can be construed as Pareto-efficient in the end thanks to larger-than-life and very charitable assumptions (finely-tuned time preference of the robbed one etc.), the supposed Marshall-efficiency does not necessarily potentially translates into Pareto-efficiency. That claim is simply a non-sequitur for two reasons. First, when it comes to comparing utility across persons, we cannot scientifically verify whether the overall utility increased or decreased. If the antecedent, that is Marshall-efficiency, is dubitable, how can we apodictically derive Pareto-efficiency from it? That logic would be very bizarre indeed. It is like claiming that p=>q but we cannot ever be sure the condition p is met when it comes to interpersonal comparisons of utility.

Second, the weaker objection is that even if we admit that a given move constitutes a Marshall-superior move, we cannot always derive Pareto-efficiency from it, that is p=>q is not necessarily true. The counter-example to the above is our case of redistributing a dollar from a rich businessman to a vagabond, which by no means can be turned into Pareto-superior move later on. It should be kept in mind that the alleged Marshall-efficiency in this case stems from the false premise that we can compare utility of the same marginal dollar between two persons: a businessman and a vagabond; and so, this reasoning invalidly assumes the two (one for each) cardinal scales of utility on the vertical axis being a function of the number of dollars already owned by one and the other person. In conclusion, when it comes to interpersonal comparisons of utility (the one person gains and the other loses), we can never be sure whether the overall utility increased or decreased. Next, even if we assume that the change was Marshall-superior, we cannot be sure whether it can be even-

tually transformed into Pareto-superior change. On the other hand, Pareto-efficiency is uncontroversial. There is no need to resort to dubious interpersonal comparisons of utility since Pareto-efficiency is never about one person gaining and the other losing. Pareto-efficiency is about at one least one person gaining and nobody losing. In terms of dollars, when two parties to the transaction gain some dollars, the change was definitely a Pareto-superior move. There is no need to compare the marginal utility of the dollars acquired by both parties. However small the increase in dollars was, it undoubtedly translates into some increase in utility on both sides. Having discredited Marshall-efficiency as unscientific, and having defended Pareto-efficiency as uncontroversial, we shall apply our framework to criticize Coase. Whenever the reasoning is based on Marshall-efficiency exclusively, it is at best dubious. The opposite applies to Pareto-efficiency. As stated above, the exemplifications of that concepts are easy to demonstrate and if it is additionally co-extensive with the just social arrangements as conceived of by natural-rights libertarians, that would be a highly desirable discovery. [16]

4. Problems with Coase

This section is going to be divided in two. First, we will deal with Coase theorem, where the two-fold interpretation thereof is going to be presented.[17] Then, we will analyze Coasian solutions to the problem of how to distribute rights (Coasion solutions to externalities) since in the latter utilitarian calculations loom large, which is the most vulnerable point of Coase.[18]

First, I will claim that Coase theorem can be given a charitable but rather trivial interpretation or else, worse, it can be discredited on the basis of its veiled utilitarianism resting on Marshall-efficiency or, as I am going to argue, GNP maximization. The theorem basically states that if the property rights are well-defined and the transactional costs are zero, then the efficient outcome will find its way.[19] To put the consequent in other words, the right will be finally attributed (due to bargaining by both parties) to the one who values it more. Let's first embark on the charitable interpretation, already alluded to in the opening passage. Under this interpretation, Coase is saying something rather trivial, that is that whatever is the rights assignment, they will be eventually granted to the party that needs them most. If we, as Coase does, decide to be mute on how the rights were assigned in the first place and whether the said assignment is just, we can eventually accept his antecedent (whatever is the rights assignment) without questioning it. But then, what follows is truly that right-holders will bargain into the efficient outcome, although "efficient" in this positivistic context (after all we agreed along with Coase not to question the justice of the present rights assign-

16 Justice and Pareto-efficiency cannot be said to be identical since the former is normative and the latter descriptive. What is meant by co-extensiveness is that whenever the former occurs, the latter does and *vice versa*. The same applies to the property of colour and mass. They are not identical but they are co-extensive, that is whatever has the mass, has the colour and *vice versa*.

17 On the succinct and explicit formulation of Coase theorem, see: D. Friedman, *Law's*...p.39. On the original considerations on the subject, see: R.H.Coase, "The Problem of Social Cost" [in:] *The Firm, the Market, and the Law* (The University of Chicago Press,1990), 95-157.

18 On Coasion solutions to how to distribute property rights (that is to externalities) on the basis of economic (utilitarian) calculations, see: David Friedman, *Law's*...p. 47-63.

19 D. Friedman, *Law's Order*...p.39.

ment) sounds bizarre because of course in the past there might have occurred such rights transfers that were not Pareto-efficient at all. But if take all that into account what Coase theorem says under this reading is a mere restatement of the freedom of exchange, having assumed the positivistic stance with respect to rights without questioning.

Let's now allude to Coase's favourite example of the doctor and the candy man, each running his business in the building adjacent to the other.[20] Let's suppose then that the candy man earns 300$ a week and he has the right for noise (after all this business takes noisy advertising). Then the doctor comes to the adjacent building. The latter could be making 600$ a week If he were granted the right for silence. What is going to happen then? Of course, the doctor will ask the candy man to unbundle his property rights and sell him the right for silence. The price will depend on their bargaining skills and will range 300$ to 600$. If, on the other hand, the doctor is given the right for silence, the candy man cannot afford to buy the right for noise since the maximal price he is ready to bear is 300$. The latter scenario is already Pareto-efficient, while in the former, the parties make a Pareto-superior move by having the transaction. So, as was observed before, this reading of Caose theorem is nothing but a definition of the free exchange. The party A has a banana and is ready to sell it for at least 2$. The party B wants to have a banana and is ready to buy for at most 4$. Then again, however the property rights are distributed, the party who values it higher, will eventually get it. The title is going to finally go to the party B within the range (2,4)$.[21] In short, that interpretation of Coase theorem regards it as trivial but at least obeying the principle of Pareto-efficiency. The problem is that under this interpretation, Coase theorem is somehow redundant. It says nothing over and above the tried and trusted voluntary exchange.

The second interpretation of Coase theorem is, as noted above, less charitable indeed. Now the problem involves the fact that Coase theorem is mute whether the rights were attributed justly. That is the crucial point because if they were not, Pareto-efficiency ceases to operate, which presages the doom of the theorem. Let's analyze what we mean more diligently. Let's suppose that the candy man is running peacefully his business earning 300$ a week. Then, the doctor arrives and he is given the right for silence. The spot was already homesteaded by the candy man, so (according to libertarian theory of appropriations (see section 2 for references), he should be given the right for noise. Instead, it is the doctor who is granted the right for silence. This is quite a plausible scenario since Coase makes no reference to the history of how the rights were acquired in the first place. To carry our scenario further to its logical implications, once the doctor (although he did not come first to the spot) is granted the right for silence, the candy man can make no profits, while the doctor starts thriving earning 600$ a week. What happened? Instead of the candy man earning his 300$, we have the doctor earning 600$. The move is not

20 R. H. Coase, "The Problem of the Social Cost", [in:] *The Firm, the Market and the Law...*

21 We can even use Coasian vocabulary and speak, as he does, about rights in this case. What is a transaction if not the transfer of the title for a given good? The good at stake does not have to be even physically carried over to the recipient B. What matters is the transfer of the property title after all.

Pareto-superior at all. And, as claimed, whether it is a Marshall-superior move is highly controversial. What can be said beyond the shadow of a doubt is that GNP was maximized. Yet, we cannot justifiably jump to the conclusion that the overall utility increased for that would involve the interpersonal comparison of utility, which was after all put into question. In conclusion, since Coase theorem is blind to the problem of on what basis the rights were assigned, it might, unfortunately, be compatible with the scenarios in which one party gained at the expense of the other, which cannot by definition be a Pareto-superior move, Pareto-efficiency being after all our scientific benchmark.

For the sake of clarity, let's now confront the above Coasian implications with the implications of the libertarian theory of justice. What we basically need is the premise that the first-comer acquires the property rights. Under libertarian theory of justice, what we have are two scenarios. The first-comer is either a candy man or a doctor, and it is either the former or the latter who gets the property rights respectively. Note, under libertarianism, unlike under Coasian arrangement, there is no possibility for a late-comer to be granted the property rights. The following table is the illustration of the said possibilities.

Persons	Homesteading	
	First-comer	Second-comer
DOCTOR	The right for silence	No property rights under libertarianism
CANDY MAN	The right for noise	No property rights under libertarianism

Since Coase, on the other hand, is mute on the history of the rights acquisition and so, the question of coming first or second to the spot is irrelevant to rights assignment, the table would assume the following form:

Persons	Homesteading	
	First-comer	Second-comer
DOCTOR	The possible right for silence	The possible right for silence
CANDY MAN	The possible right for noise	The possible right for noise

For Coase, property rights are then independent of the question who came first there. This problem is not even hinted at by Coase theorem. The fixed property rights constitute one the conditions of Coase theorem and the author does not address the problem of on what basis they were assigned in the first place. The first table differs from the second one in one crucial respect. If, in the second table, the first column is instantiated, that is the possibility of the first-comer to be granted property rights materializes, the table is indistinguishable from the first table (illustrating the libertarian theory of justice). Unfortunately, the second column (second-comer) in the second table can be instantiated, that is the second-comer instead of the first-comer can be granted property rights. Let's now see what bearing it has on Pareto-efficiency. Let's first study the first table and show

that it closely corresponds to Pareto-efficiency. What we need to consider is only two scenarios. Let's still assume that the doctor is able to earn 600$ when he has the right for silence and the candy man earns 300$ providing he is granted the right for noise. Let's look at the top-left column. The doctor comes first and thus he has the right for silence. He earns 600$ and when the candy man comes he realizes he cannot buy the right for noise being able to earn only 300$. This arrangement is already Pareto-efficient. With these possible gains, there is no improvement imaginable. The candy man is going to look for a different spot or for a different business activity. What if the candy man comes first to the spot and he peacefully earns 300$ and then the doctor comes realizing that he could earn at this spot 600$ were he able to acquire the right for silence? They both quickly realize that they can strike a mutually beneficial deal. The candy man unbundles his property rights and sell the right for silence to the doctor within the range (300,600). They both get some value in dollars; so it makes a Pareto-superior move. So, as predicted, the libertarian theory of appropriation corresponds closely to Pareto-efficiency. Let's now study the critically different right column in table 2. The first scenario is that the doctor comes second but he is given right for silence. Then, the candy man earns zero and the doctor earns 600$. It is true that GNP was maximized; yet, the doctor benefited at the cost of the candy man and thus we cannot even be sure whether the overall utility went up. The bottom right cell is another undesirable outcome. The doctor was earning 600$ and then the candy man came and was granted the right for noise. Now, the doctor earns nothing and the candy man is earning 300$. What matters for us is that again Pareto-superior move does not materialize here and thus we cannot know for sure whether the overall utility increased or not.

Having seen that Coase theorem is at best trivial and at worst presupposed the invalid interpersonal comparisons of utility, let's proceed to Coasian solutions applied to the problem of how to distribute rights. Unfortunately, this part of Coasian theory is even more susceptible to criticism. The problem is that now the suggestion is that the rights should be assigned on the basis of utility. As long as the utility increases for all the actors involved, the move is by definition a Pareto-superior one and no problems arise. Yet, supposedly (and this is something we dispute), overall utility can rise (according to Marshall-efficiency theory) even if one party loses and this is the point where Coase goes wrong majorly.

To illustrate the problem, let's imagine the following scenario. You live in the block of flats and in the adjacent flat your neighbour is practicing the violin. The would-be violinist is definitely imposing the external cost on you while he is bearing none whatsoever; after all, he is enjoying the violin and the sound of it. The property rights are not fixed now because now we are looking for the way of assigning them. Coasian solution is that the *lowest-cost avoider* should bear the cost. Let's now come back to our imaginary scenario. If the amateur violinist is ready to resign from practicing the violin when paid 400$ a month and you are ready to pay at most 300$ to terminate your suffering, then the efficient outcome is for the violinist to continue practicing. The only possible justification (but still the invalid one) is the belief that the overall utility is maximized when the violinist keeps practicing. It is because if he ceases to practice he would lose the val-

ue of 400$ (roughly speaking) and what the poor neighbor loses is the rough value of 300$ by being exposed to the unbearable noise emitted by the violin. It would apparently maximize the overall utility, the measure of which would be roughly 100$. Yet, the same pervasive mistake looms large, that is the interpersonal comparisons of utility. We cannot claim that 400$ for the violinist is somehow (how?) worth more than 300$ for the suffering neighbor. That is simply an unjustifiable conclusion without any scientific foundation. Let's now consider the other scenario, in which the violinist would be able to resign from torturing the neighbor for as much as 200$ and the neighbour would be able to pay him as much as 300$ still to buy silence. Now the poor neighbour would simply pay the violinist within the range (200,300)$ and apparently they would achieve the efficient outcome. But how such a transaction be a Pareto-superior move? After all, the neighbour is losing some money while the violinist is gaining some. If we only imagine that the violinist comes second and thus does not have the right for noise, the poor involuntary listener would be better off not paying a single penny to a disturbing violinist than when he has to pay quite an amount just to enjoy silence. The poor neighbour would have been much better off if the violinist had not come there at all – especially if the former came to the spot earlier than the latter. It is the violinist that imposes the external cost on his neighbour and it is the latter who is supposed to bear it fully merely because he has apparently the smaller cost to avoid. With this sort of Marshall-like criterion serving to assign the property rights, we could justify almost any state of affairs. Our scenario bears much resemblance to racketeering, which is a paradigm case of unproductive activity. You are running a business and a gangster "offers" a racket service to you saying that if you disagree he is going to burn your office within the next few days. You agree because you value your office more than the money paid to the gangster. Still, given that the property rights are fixed (you are a rightful owner of the office), paying money to the gangster is not a Pareto-superior move. You would be better off without his "service" by all means. Who profits exclusively is the gangster himself. As we noted before, Pareto-inefficiencies do not occur when the property rights are fixed on the basis of *homesteading principle*. Then, there are only two options. The distribution of rights is already efficient or the parties can bargain into the mutually beneficial outcome, which constitutes a Pareto-superior move (freedom of exchange). Then ultimately, there seems to be no conflict between Pareto-efficiency and justice; more, they are co-extensive while Coasian solutions would constitute merely Marshall-superior moves, which are not always translatable to Pareto-superior moves and are thus far from conclusive and highly controversial.

5. Conclusions

The present paper proceeded as follows. We succeeded in justifying the key libertarian homestead principle and the derivative voluntary exchange. They both served as a benchmark against which we considered and judged the relative merits of the utilitarian conceptions of rights assignment. In the meantime, we criticized Marshall-efficiency as invalid and we concluded that whatever reasoning rests on Marshall-efficiency (as opposed to Pareto-efficiency) it must be scientifically null and void. Eventually, we showed that Coase theorem and is

trivial at best and otherwise it makes an ample use of Marshall-efficiency type of reasoning, which cannot defended at all. Then, we showed that the libertarian principle of homesteading and voluntary exchange correspond closely with Pareto-efficiency, which is a very welcome result for it is only Pareto-efficiency and not Marshall-efficiency, which stands up to scientific scrutiny.

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