

**Uncertainty and Risk:
From Entitlement Theory of Justice to Inalienable Rights.**

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Abstract.

The following paper presents a set of philosophical arguments that extend the standard set of property rights under the classical libertarian perspective to include the individual rights to ownership, management and transfer of risk and uncertainty. The paper shows that an extension of property rights, proposed below, strengthens the libertarian arguments concerning the sufficiency of the minimal state for achievement of liberty and justice. However, as argued in the paper, property rights extension alone does not support the argument in favour of the minimal state as a necessary condition for justice. To achieve such argument, we extend the argument concerning the inalienable rights to include the rights to risk and uncertainty. We show that in presence of such rights, the infamous Nozickian assertion concerning the potential implications of continuity of the space of rationality with regards to its role in separation of the human domain from that of the other biological species, no longer holds. In addition we establish that incorporation of individual rights over risk and uncertainty into the set inalienable rights allows for resolution of the Hansson's causal dilution problem.

Introduction.

In *Anarchy, State and Utopia*¹ Robert Nozick presents three arguments in favour of the minimal state. The first argument arises from refutation of anarchism on the grounds of the state role in protecting property rights. This provides a positive justification of the minimal state arrangements that act to secure property rights against assault, theft and fraud. The second one relates to the issue of the entitlement theory of justice, the cornerstone of Nozick's theory. The entitlement theory of justice is shown to support the minimal state as a maximum possible extension of the collective power over the individual liberty. Finally, the third defence of the minimal state applies to the issue of feasibility of social structures that can support individual notions of utopia.

Since its publication in 1974, *Anarchy, State and Utopia* attracted numerous criticisms and arguments against all of the main tenets of Nozick's theory of justice. Perhaps it's most important and most frequently attacked component is the entitlement theory of justice that deals with the determination of justice in acquisition, transfer and rectification. Specifically, multiple criticisms were developed of the notion of justice in transfer along the lines of distributive justice arguments in favour of more than minimal state arrangements.

On the other hand, despite occasional references to the issue of uncertainty, risk and expectations, in most cases, the analysis of the Nozick's entitlement theory of justice ignores the explicit consideration of risk within the context of property rights and the role of the state in delivering the distributive justice². This paper briefly attempts to address this shortcoming by injecting specific considerations of risk and uncertainty into Nozick's entitlement theory of justice³. As argued below, explicit incorporation of risk and uncertainty into the set of property holdings of individuals can plausibly address a host of conventional objections to Nozick's principles of the entitlement theory of justice.

At least since the days of Bismark's reforms, modern states derive their legitimacy from policies aimed at achieving justice in distribution of wealth and income. The problem of distributive justice as a function of the state is one of the fundamental difficulties in the modern libertarian, as opposed to the *laissez faire*, theory of liberty. The postulation of this problem can be presented as follows. Suppose, for the sake of

¹ Hereinafter, page numbers refer to *Robert Nozick, Anarchy, State and Utopia (ASU), Basic Books, 1974*

² Nozick treats risk as a by-product of human activity, most commonly the one that is of negative value in individual lives. In some cases, as in his justification of the minimal state on the grounds of justice in rectification he uses risk to one' person from the actions of another as the grounds for compensatory transfer from the latter to the former (ASU, page 78) and for emergence of the supra-individual protective agency of the state (ASU, pages 142-146). In other cases, he explicitly acknowledges that risk enters productive decisions in the capitalist society (ASU, pages 255-256, 260-261). Nozick recognizes that the 'capitalist society allows for the separation of the bearing of these risks from other activities'. However, this does not imply that Nozick acknowledges that property rights also apply to individual holdings of risk and/or uncertainty. As a result, he only allows for transfer between those who accept risk and those who do not wish to accept it, i.e. rectifying transfers. In a more general treatment of risk, as proposed hereinafter, risk can be both – a property that generates economic rents (entrepreneurial dimension of risk bearing) and that generates costs to the holders (as consistent with Nozick's view).

³ Mainstream ethical theories in general fail to deal with the problems of risk and uncertainty, as pointed out by S.O. Hansson in his *Philosophical Perspectives on Risk*, keynote address at the conference Research in Ethics and Engineering, April 2002.

argument, that it is presumed that a just society is such that each person holds some specific minimal share of resources. Such an outcome is unlikely to arise from a mere chance operation of uninhibited markets. Thus, if we are to accept that a proper function of society is to achieve such distribution, we must accept a more than minimal state, in so far as the resulting state will exceed its maximum capacity to protecting inalienable rights against assault, theft and fraud. Instead, the redistributive justice function of the state will be possible with resulting rights to redistributive taxation, regulation and pricing.

Nozick's theory of justice presents a dilemma – accepting that a minimal state removes any consideration of the distributive justice, while allowing for any consideration of justice in distribution implies expansion of the state beyond the minimal definition. Nozick's solution is to present a distinct third alternative view of justice – an entitlement theory of justice that

- (a) disallows taxation for the purpose of redistribution on the grounds of the arguments that such taxation will violate property rights;
- (b) establishes that property rights are inalienable;
- (c) allows for distributive justice to be achieved within the constraints of the minimal state.

From Nozick's point of view the following proposition holds: If the entitlement theory of justice is true, then the only justifiable state is the minimal one. Anyone advocating more than the minimal state thus faces the burden of proving that the entitlement theory of justice itself is false.

This proposition is commonly perceived to apply to economic matters alone. However, to be universal, it must hold in broader terms as well. The argument here is that once we consider the issue of risk and uncertainty in the context of property rights, Nozick's argument in favour of the minimal state acquires added strength. Specifically, we postulate that in the presence of individual property rights over holdings of risk, the distributive justice principles of the more-than minimal state violate not just the property rights over individual income and wealth. Taxation and regulations based redistribution of income and wealth also act to reallocate risk within society without regard for the original principle of redistribution⁴. In addition, it is plausible, as argued in the last section of the paper, to interpret individual rights over autonomous distribution of risk as, fundamental inalienable rights definitive of liberty and autonomy.

In a modern society, risk and uncertainty can be seen simultaneously as the inputs into production of entrepreneurial opportunities⁵ and the costs of transferring goods and wealth across time and states of

⁴ The fact that taxation and regulatory protection transfers risks is not difficult to establish. For example, when entrepreneurial returns are taxed in the presence of economic uncertainty, such as liquidity shocks, the levels of taxation burden do not account for the expected demand for liquidity by the entrepreneur. Thus, neither the standard decisions under risk (decisions taken with prior knowledge of probability distribution of risk), nor the general uncertainty (the case where no priors are given concerning the probability of the adverse events) can price the uncertainty transferred by the taxing authority to the entrepreneur. At the same time, by granting a welfare recipient a guaranteed share of income (and in case of welfare benefits indexation to inflation, of real income), the state reduces uncertainty and risk in the welfare recipient's possession.

⁵ At least a passing reference to this is provided in Younkis E. W. *The Businessman as a Moral Risk-Taker*, see www.quebecislibre.org/010303-9.htm. Apart from this and other references made in passim little literature exists on the role of uncertainty and risk in the productive process of entrepreneurs. Yet, at least in financial markets, risk is treated as a commodity tradable across agents, time and space. This implies that in a non-trivial way there is an intrinsic value attached to risk that is negative

nature. As such, these forces directly affect the economic activity and the nature of property rights outside immediate economic considerations. This is to say that risk and uncertainty can be viewed as both economic and social or ethical commodities simultaneously. Yet, in the process of redistributing economic wealth, the modern states engage in redistribution of risks away from the recipients of income transfers and beneficiaries of protective regulatory measures onto the shoulders of the productive taxpayers and businesses. Such transfers are not reflective of the actual distribution of risks in the society – ex ante the transfers both the welfare recipients and the corporate entities protected by the regulations may bear lower risks than the privately employed population. At the same time, risk transfers can be viewed as the redistribution of property (either in terms of risk allocation itself or in terms of redistribution of risk-related productive capacity). Thus, at least in the case of the modern state redistributive policies, these policies have a direct impact on broadly defined property rights over and above those implied by income transfer alone. Under the entitlement theory of justice, consideration of such risk transfers therefore falls into a category of double jeopardy vis-à-vis restriction of the property rights implied by taxation.

The notion of risk as a form of property is important in the context of Nozick's theory. Nozick uses risk as a part of his analysis of human attitudes toward uncertainty in justifying the existence of a minimal state in excess of the natural state of anarchy. The problem with Nozick's exogenous treatment of risk vis-à-vis property rights is that if risk is not viewed as a form of property itself, the libertarian concept of the minimal state cannot be used to justify risky behaviour. For example, we commonly observe the society allowing risky behaviour that not only places the agents engaged in such behaviour at risk, but also allocates some risk to those not involved in the action. Examples of such situations include any risky activities that are permitted on the basis of assessing their utilitarian benefits and costs.

In so far as Nozick's theory of justice does not permit utilitarian considerations, the risk associated with legitimate voluntary activity, such as driving, cannot be distinguished from the risk associated with such involuntary activities as being held for ransom. Yet, Nozick's theory contains a perfect tool for such distinction. If risk is viewed as property that can be derived from uncertainty and held by individuals, Nozick's principles of justice in acquisition, transfer and rectification apply to risk, allowing for distinction to be drawn between the voluntary (legitimate) ownership of risk and involuntary (unjust) transfers of risk.

We draw a handful of such distinctions in explicitly defending Nozick's theory of justice from some of the common critiques found in the literature. With this in mind the paper is organised as follows. Following an overview of the traditional theories of justice, we outline Nozick's entitlement theory. We show that at least in sufficiency argument, voluntary transfers should be considered just when risk and uncertainty are incorporated into property holdings. We proceed to defend Nozick's argument that taxation is much closer to forced labour when risk transfers are accounted for than traditional theories of distributive justice would allow.

for some agents, while being positive for others. The goal of developing an explicit model of such entrepreneurial production processes lies beyond the scope of this paper.

Finally, address the justification for the incorporation of risk beyond the consideration of property rights alone. In this context we extend Nozick's argument concerning rationality as a separating principle of human nature over and above biological continuum with animal world. As argued below, human capacity to make 'leaps of faith' outside the domain of rational thought or form beliefs that challenge rationality rules represent a stronger argument for separation of animal and human domains. This capacity intimately depends on our ability to appropriate and transfer risk and manage the uncertainty. Thus, our rights to independent risk become inalienable in their nature and in so far as any state in excess of the minimal state will redistribute risks in the process of achieving any distributive justice, any state above the minimal state cannot be justified.

1. Traditional Theories of Justice.

The main question arising in the context of Nozick's second line of defence of the minimal state is: How can we determine the degree of justice achieved by a particular set of economic and social holdings within a given society? In economic analysis of income distributions, inequality and poverty, the standard postulation of this question involves presentation of the existent status quo in terms of the percentage of economic assets (income) held by particular groups of population. Using a principle of distributive justice, the status quo is then analysed as being either just or unjust.

Setting aside the commonly omitted consideration of risk-adjustment in the evaluation of income and wealth shares of various segments of population, a larger issue here is that of the specific notion of distributive justice. What makes any given distribution just or unjust? According to some theories all goods should be shared equally, while others suggested that only effort or labour may confer title to goods. Alternatively, John Rawls in his *Theory of Justice* (1971) argues that the guiding principle for redistribution of economic resources must be in the maximisation of the benefit for the worst off members of society⁶. All such theories support a state in excess of the minimal state advocated by Nozick in so far as both the end-state and patterned theories of justice require some transfer of resources across population⁷.

Nozick notes that there is no 'neutral' way of postulating the problem of distributive justice. His argument is that to assume that there can be justice in distribution requires us to either assume that resources are not owned by anyone or to postulate that the distributive justice supersedes all considerations of the property rights. This neglects the fact that regardless of the social justice priorities, what non-minimal state treats as goods suitable for redistribution are the outcomes of production decisions taken by its members based on their expectations of what their efforts will yield.

⁶ The fact that Rawls' theory of justice is patterned and teleological was highlighted in his later work, *Political Liberalism* (1993). In an attempt to defend his assertion that involuntary transfers are just, Rawls argues that political philosophy is only instrumental to achieving societal objectives of stability and social unity.

⁷ Once again, it is important to distinguish which resources are being transferred in these cases. Income transfer through taxation and regulation implies simultaneous transfer of risk. For example, in case of Rawls' principle, risk is being transferred from the least advantaged population to the taxpayers. Yet, the effects of such transfer cannot be fully accounted for in the policy design.

The latter provides the second argument against the end-state and patterned theories of justice, not explicitly developed by Nozick. The notion of expectations implies that in the world of uncertainty and risk, individual production decisions will be subject to both the direct and indirect effects of redistribution. The direct effect applies to the idea that when faced with redistribution, agents will produce depending on the tax elasticity of their decisions. The indirect effect is that uncertainty about redistribution and risk transfers arising from taxation will act to distort productive decisions. The effect of risk transfers by the state can be seen as a combination of two reinforcing factors. The first factor is the role of risk in distorting agents' behaviour on the margin. Faced with higher degree of risk, private producers may scale down their efforts, increase agency problems or cease economic activity all together. The second factor is the role of risk in generating precautionary-type motives. These can take form of developing social distaste for entrepreneurship, cultural preferences for state employment and skills hedging in favour of protected professions. In both cases, the resulting non-minimal state propensity to pursue distributive justice distorts productive capacity of society *and* property rights of individuals so as to minimise productivity of risk in generation of economic and social opportunities.

Nozick makes two fundamental distinctions between the mainstream theories of justice: theories based on the end-state principle and those using historical basis for accessing extant property arrangements. The first set of theories determines the nature of a given property distribution on the basis of its structure⁸. The historical theories of justice account for the past choices and/or circumstances in assessing given property arrangements⁹. Nozick divides historical theories of justice into those based on patterns and the unpatterned. The former refer to a specific ordering of priorities in determining the nature of property holdings – they invariably appeal to some principle ‘to each according to his (labour, merit, need, etc.)’. Nozick claims that nearly ‘every principle of distributive justice is patterned’¹⁰.

2. Nozick's Entitlement Theory of Justice.

According to Nozick, the unpatterned theory of justice must specify a set of rules that establish the legitimacy of property holdings. Thus, in the view of his own entitlement theory of justice,

- (1) A person who acquires a holding in accordance with the principle of justice in acquisition is entitled to that holding;
- (2) A person who acquires a holding in accordance with the principle of justice in transfer, from someone else entitled to that holding, is entitled to that holding;

⁸ For example in a society with n agents, total utility of an arrangement in which proportion p_1 of agents has A units of property, while $1 - p_1$ holds B units may be given by some utility value U_1 . If there exists another arrangement p_2 , such that the associated utility $U_2 = U_1$, any choice between p_1 and p_2 is an arbitrary one and does not involve unjust redistribution from arrangement 1 to 2 or vice versa.

⁹ For example the principle that only ones labour merits ownership falls into this category.

¹⁰ Nozick, ASU, Page 156.

(3) No one is entitled to a holding except by applications of 1 and 2.

‘...A distribution is just if everyone is entitled to the holdings they possess’¹¹

The core idea of the entitlement theory of justice is that any transfer of property rights is just if and only if it is voluntary. This makes Nozick’s theory historical in its nature. The fact that it is unpatterned is given by the presumed precedence of procedures (1) and (2) over any patterns of holdings that precede the present state of distribution.

The importance of the unpatterned nature of Nozick’s entitlement theory of justice stems from the observation that liberty is incompatible with patterns. Thus, if liberty is our objective, society cannot support any transfers that are not voluntary. This in turn implies that any patterned theory of justice, by imposing involuntary patterned distribution of property, will not be compatible with liberty. Nozick uses his famous Wilt Chamberlain example to illustrate his argument (after Hume) that voluntary transfers will be able to break down any pattern, making any objective distribution of property holdings impossible without coercion.

Nozick makes a claim that the voluntary nature of transfers is both necessary and sufficient for justice of property holdings and distribution, i.e. a transfer is just \Leftrightarrow a transfer is voluntary.

In terms of Nozick’s sufficiency argument, a common objection is that of the feasibility of assessing whether or not a given transaction is voluntary. For example, the Marxist critique of capitalism rests on the presumption that workers are forced to supply labour to the owners of capital in order to avoid starvation. This is an objection to the *laissez faire* or minimal state that preclude patterned redistribution of property. Nozick’s answer is that ‘Whenever a person’s actions are voluntary depends of what it is that limits his alternatives. If... facts of nature do so, the actions are voluntary. Whether (other people’s actions) make one’s resulting action non-voluntary depends upon whether these others had the right to act as they did.’¹² Thus, according to Nozick, the minimal state is justified as a protection of individual rights from force and fraud.

The latter aspect is more problematic than the former. If we are to accept the view that a fraudulent, but voluntary, transaction is not just, then voluntary transfer principle can no longer be deemed to be sufficient for justice. The only way of salvaging the Nozick’s claim of sufficiency is by expanding the definition of the property set to include information, i.e. to include uncertainty or risk. Nozick’s view of involuntary transactions is not based on the nature of the actual beliefs underlying the transaction itself, but on the way in which these beliefs are possessed. In other words, when one’s property of beliefs is altered by fraud, the voluntary nature of transaction is altered as well. The same does not take place when one’s possession of a mistaken belief results in an error in transfer. In essence, the issue here is as we shall see later the nature of conversion of uncertainty into risk and management of risk. If, ex ante a transfer, risk is distributed on the

¹¹ Nozick, ASU, Page 151.

¹² Nozick, ASU, page 262.

basis of legitimate property rights, then mistaken belief is different from fraud in so far as the latter implies illegitimate transfer of risk from one agent (fraud perpetrator) to another (the victim). This violates principle (2), i.e. justice in transfer, for it makes the initial holding of risk between two agents illegitimate. No sacrificing of the sufficiency principle of justice in transfers is required to deem a fraudulent transaction unjust.

A final objection to the sufficiency claim of voluntary transfers is the possibility of such transfers generating externalities. Nozick's argument here is that whenever a transfer is voluntary, it preserves legitimate ownership of third parties. In his 1977 article '*Robert Nozick and Wilt Chamberlain: How Patterns Preserve Liberty*'¹³, G. Cohen argues that '... a person's effective share depends on what he can do with what he has, and that depends not only on how much he has but on what others have and on how what others have is distributed. Third parties therefore have an interest against the contract...' Thus, for example inflation, keeping-up-with-the-Joneses and other links between the individual transaction and the third parties' rights are to be given consideration in assessing the justification of each transfer over and above the issue of voluntariness. Nozick himself does not provide a comprehensive response to this critique other than through the thesis of justice in rectification. In addition, in a later work, *Invariances*, he argues that at least to some extent this problem can be addressed by voluntary coordination.

Yet, a third resolution is possible when we extend traditional property set to include individual ownership of risk. In so far as uncertainty introduced into the property set, a voluntary transfer between two agents may remain neutral vis-à-vis other agents as long as the transfer is just with respect to their rights over risk as well as their standard property rights. Consider for example the case outlined by Cohen, whereby a transfer between two agents results in a great degree of inequality of property shares within the society. Suppose, that such inequality undermines the relative property value of the remaining agents' property. Nozick's points out that the transfer available to a pair of agents is also available to an association of agents, who through coordination can engage in a transfer that neutralises the uneven distribution of property. The possibility of such coordination is a risk born by the agent in the original transaction who stands to benefit from uneven distribution of wealth. Thus, implicit in any transfer between two agents, there is a built-in mechanism of risk transfer that neutralises the effect on non-contracting parties. As long as the risk remains both a productive input into generation of new property and a property to be owned itself, one's ownership of risk remains linked to voluntary transfers of property in a direct and compensatory way.

3. Entitlement Theory: Risk and Taxation.

¹³ Erkenntnis, 11, 1977, page 12.

The unpatterned nature of the entitlement theory of justice rests on the principle that any voluntary transaction based on legitimate priors will be just. Thus, if we are to accept a patterned distributive approach to any transaction, we must reject the idea that a transfer is just if and only if it is voluntary. If the objective of a society is to enforce a given pattern, the resulting restrictions on transactions will imply that voluntariness of transfers is not sufficient for justice. On the other hand, if we use distributive justice in order to maintain a given pattern, we reject the notion that voluntariness is necessary for justice. Nozick must establish that *any* patterned principle of justice will involve a violation of some fundamental principle of value that underlies the notion of justice itself. Nozick's response to this challenge is to argue that any enforcement of a patterned theory of justice will restrict liberty – a fundamental right of self-ownership.

This argument is hardly sufficient independently from the consideration of the severity of the restrictions on liberty implied by enforcement of a particular pattern. In other words, since the beginning of time, it was argued that it may be defensible to sacrifice some liberty in order to support other objectives. From this point, it can be argued that taxation and protective regulation by the state may not necessarily imply a constant and persistent interference with one's liberty. To defend his theory of unpatterned justice, Nozick argues that liberty acts to destroy patterns regardless of the specifics of property rights, i.e. that any enforcement of patterns, no matter how benign, will involve serious interference with liberty.

Nozick's argument is that taxation and regulatory protection represent forced labour in so far as any redistribution of income will make exogenous claim on a person supplying effort¹⁴. This is a strong argument refutable only through a reference to the specific nature of forced labour differences from the taxation system operating today¹⁵. However, Nozick's argument is strengthened by considering the issue of uncertainty and the effects of taxation in distorting risk allocation within the society. As argued above, redistributive enforcement of patterns involves unaccounted and unintended¹⁶ transfers of uncertainty and risk away from the recipients of social protection onto the shoulders of taxpayers¹⁷. This implies that taxation restricts liberty in more ways than one. Specifically, redistribution that affects distribution of risk within the society will restrict individual liberty in allocating risk. As such, taxation represents a combination of the elements of forced labour and forced acceptance of risk outside the choice of individual taxpayer. Yet, unlike income, risk serves as both the property to be held in ownership and the input into

¹⁴ Nozick, ASU, page 169-174.

¹⁵ As discussed in Wolfe, J. 'Robert Nozick: Property, Justice and the Minimal State', Stanford University Press, 1991, page 91.

¹⁶ From our definitions of uncertainty and risk provided in section 5 below it is clear that no patterned system of justice, including a system involving involuntary transfers (taxation and regulation) will be able to account for such transfers of risk. Uncertainty, by definition, involves assessment of events with no priors on probability distribution of such events. As a result, uncertainty cannot be accounted for, since no Bayesian assessment of underlying probabilities can be made without converting uncertainty into specific risk. Such conversion requires formation of a belief that lies outside the realm of rationality and thus cannot be a matter of social decision-making. Instead, formation of beliefs remains in the domain of individual. This rejects the possibility that any system of patterned transfers, other than voluntary, can account for uncertainty.

¹⁷ For example, redistribution of rents from one's talents and efforts, as sanctioned for example by Rawls' difference principle, in Nozick's view force transfer of talent and effort violating the self-ownership principle of individual inviolability. However, this statement implies that Nozick must address the issue of taxation-induced transfer and the resulting injustice from the basis different from that of the property rights violation alone. This is the subject of Nozick's argument concerning patterns and liberty and our arguments presented in the last section of the paper.

production of property. Removing from consideration one's property rights, taxation and protective regulation by the state will directly restrict one's liberty in their choice of risk allocation. This makes it sensible to conclude that taxation does indeed represent as serious and persistent infringement on liberty (over and above the issue of property rights) as forced labour.

4. Illegitimacy of Redistribution, Self-Ownership and Three Objections to the Entitlement Theory of Justice.

The first response to Nozick's entitlement theory of justice arises in the context of the external distribution of resources under the principle of acquisition. In a strong critique, G. Cohen states that Nozick's entitlement theory gives arbitrary advantage to those who hold property under the initial allocation of resources¹⁸. This critique has prompted several conflicting theories of justice to emerge¹⁹. These theories rely on the argument that there can be more plausible principles for determination of the initial endowments consistent with the principle of self-ownership. In the context of the proposition that risks and uncertainty should be included into the property set of the agents, such arguments can be refuted and the original postulation of Nozick's principle can be supported. If the initial endowment of property takes form in light of the present uncertainty concerning the value of such property, then such endowment can be viewed as (a) a risk premium collected by the original appropriators of property holdings, (b) the resulting redistribution of risk is voluntary and thus just.

A more fundamental critique of Nozick's entitlement theory comes from the egalitarian view that one must distinguish various forms of self-ownership rights. At least two major forms of self-ownership are distinguished: self-ownership over one's body and abilities and self-ownership over property rights. The egalitarian view concerning the first set is that a person indeed has self-ownership rights over her/his body and abilities. With respect to the second set, in libertarian world, an individual has a right to receive full market return on her/his efforts and property owned less tax to finance the minimal state. However, from an egalitarian perspective, redistributive taxation is compatible with the protection of the rights to self-ownership when such taxation supports the dominant self-ownership rights to body and ability of some without violating these rights of the others.

Nozick's argument against the egalitarian position is the argument against taxation as a forced labour, presented above. However, the sufficiency of this argument rests on the assumption that property rights are inviolable with respect to the self-ownership rights²⁰. An argument that taxation redistributes risk, combined with the assertion that risk ownership is intrinsic to the self-ownership over one's body and ability makes Nozick's argument irrefutable. Yet this requires a formal discussion of the role that risk plays

¹⁸ G.A. Cohen *Self-Ownership, World-Ownership and Equality*, Social Philosophy and Policy, 3 (1986), pages 77-96.

¹⁹ See H. Steiner's essay *An Essay on Rights* for a theory of left-libertarianism and M. Otsuka's theory of redistribution in inverse relationship to talent in *Self-Ownership and Equality*.

²⁰ This point is strongly argued by M. N. Rothbard in his lecture *Robert Nozick and the Immaculate Conception of the State*, available at www.mises.org/rothbard/ethics/twenty-nine.htm

in determination of the fundamental rights to self-ownership, a subject we consider in the next two sections of this paper.

5. Risk and Uncertainty: Beyond the Property Rights Argument.

To make the argument concerning the nature of risk holdings as fundamental determinants of self-ownership, we must establish that risk and uncertainty are intrinsic determinants of human nature vis-à-vis any other form of life. If such an argument can be made, then individual rights over holding, transferring and managing risk and uncertainty become the primary set of rights even in the conception of egalitarian theory of justice. We begin by defining what we mean by risk and uncertainty. Then we proceed to establish that extending Nozick's claim that human uniqueness is determined simultaneously by our rationality to include ability to accept a belief beyond immediate constraint of rationality. The latter part of the argument links to our ability to exercise our rights over risk and uncertainty.

5.1. Are Risk and Uncertainty Sufficient for the Domain of Inalienable Property Rights?

Following S. O. Hansson²¹ we can provide the following definition of risk: (1) the decision made under conditions of known or estimated probabilities. We define uncertainty as (2) the decision made under conditions of unknown probabilities²². Thus, encountering uncertainty, individuals who are allowed ownership rights over it can convert uncertainty into risk. It is crucial here to note that such conversion can only take place under the condition that individual owns the uncertainty and risk.

Hansson makes a powerful argument, supported by the empirical analysis of the effects that risk has on decision making of the agents. He notes that under the conditions of risk, there arises a causal dilution problem defined as: (3) Given a specific appraisal of a moral theory T by the value-carriers with well-defined properties, what moral appraisal does T make of probabilistic mixtures of such value-carriers. The fundamental question that Hansson asks of ethical theorists is 'How can major moral theories deal with the causal dilution problem?'

This question is non-trivial. If the presence of uncertainty introduces risk into decision-making of the agents, as defined in (1) or (2), then both risk and uncertainty may change valuation of any moral theory under (3). Furthermore, the fact that uncertainty is alterable into risk by an agent's beliefs, choice of estimation, analysis and perception of probabilities, the moral valuation itself is alterable by such choices. Nozick does not address this problem. In his view 'Imposing how slight a probability of a harm that

²¹ Sven Ove Hansson *Philosophical Perspectives on Risk*, keynote address at the conference Research in Ethics and Engineering, April 2002.

²² Our modification of Hansson's definitions of risk and uncertainty involves two alterations. First, we drop his term 'unwanted' from consideration of risk since risk and uncertainty are neutral in their value ex ante realisation of payoffs. Second, we downplay the distinction between actual and estimated probabilities, since as Roy Childs points out, 'the only risk that can be measured is found in those rare situations where the individual events are random, strictly homogeneous, and repeated a very large number of times. In almost all cases of human action, these conditions do not apply...'

violates someone's rights also violates his rights'²³. Thus if we are to accept the mainstream view of risk as a *unwanted* (or negative utility generating) good, then a prohibition on actions that increase risk without retribution will be justifiable.

The problem with this is that *uncertainty* as defined in (2) is neutral in value, at least as long as its presence does not violate self-ownership on individuals vis-à-vis their rights to body and ability. This neutrality is implied by the fact that uncertainty (2) can be transformed into risk (1). The risk, itself, can be either a 'bad' or a 'good', depending on whether possession of risk yields positive returns (risk premium) or negative returns (costly errors or realisations of losses) depending on (a) the type of risk, (b) individual ability to appropriate and manage risk, (c) actions of other agents. Thus *risk* possesses all elements of other forms of property. Nozick's example in which society allows some risky activities, such as driving cars, illustrates this point.

Hansson suggests a solution to this problem: 'The most obvious way to achieve (a balance between risk and rights) is to associate to each right (prohibition) a probability limit'. Nozick's objection is that probability limits are arbitrary in nature. Hansson concludes that 'Probability limits do not solve the causal dilution problem (for the rights-based theories). As far as I am aware, no other solution of the causal dilution problem for these theories is available.' Yet, from the above discussion it is clear that the problem can be fully resolved when individuals are permitted to possess, transfer and manage risk and uncertainty within the set of their inalienable rights to self-ownership. Indeed, the conflict between rights and risk, established by Nozick and analysed by Hansson can only arise if the uncertainty cannot be (a) converted into risk, and (b) risk cannot be appropriated by the agents at their own free will²⁴. Thus, in a free society the proper possession of risk can be only made in the context of individual property rights. This implies that no individual should be coerced into accepting risk when faced with any form of uncertainty as long as possession of this uncertainty does not belong to his inalienable rights. As Childs pointed out, any involuntary transfer of risk shifts societal distribution of risk away from the optimal²⁵.

Our arguments above establish the sufficiency of incorporating risk and uncertainty into the domain of inalienable rights. Yet, the case for risk and uncertainty as the members of the domain of inalienable rights is not complete without establishing such property as a necessary condition for existence of such rights. This is done in the following.

5.2. Risk and Uncertainty as the Necessary Determinants of Inalienable Rights.

²³ Nozick, ASU, page 74.

²⁴ Or as M.N. Rothbard puts it, '... no one has the right to coerce anyone not himself directly engaged in an overt act of aggression against rights. Any loosening of this criterion, to include coercion against remote risks, is to sanction impermissible aggression against the rights of others'.

²⁵ M.N. Rothbard, op cited.

Egalitarians and libertarians agree that there exist some inalienable rights that all human beings possess that are not endowed to any other species. Regardless of a precise definition of such rights, ethically, they introduce a cardinal division into the otherwise continuous line of differentiation between us and the other inhabitants of the biological kingdom of *Animalia*. These rights are determined not by a singular social construct or reference to a specific meta-human condition (such as the case of property rights), but by a belief that certain human capacity (to thought, rationality or language) infinitely exceeds the capacities of the other biological agents (a metaphysical context). For example, Nozick asserts that our ‘rationality... defines the distance we have come from mere animality’²⁶. Such views introduce a notion of the existence of a rule R_0 such that the following are simultaneously true:

- (1) by its presence, R_0 distinguishes humans (h) from animals (a): hR_0a ;
- (2) in its degree of variability, R_0 supports a definable metric (μ) that distinguishes individuals i and j amongst the humans: $i_{\mu}R_{0\mu}j$.

In other words, the rule R_0 is sufficient to establish the variation amongst individuals along some metric, and variation between humans and the animals. A general problem with such rules is that the mere existence of a metric separating individuals from each other generates a possibility for applying such metric to argue that if any trait distinguishes people from animals and if people differ in degree along this trait, then some people are closer to animality than others. Nozick argues that resolution of this puzzle rests in the assumption that although rationality supports a metric, it is wrong to assume that animals and humans share the same continuum over which this metric applies. According to Nozick, the separating trait of language makes the differences in rationality negligible amongst all humans in comparison to the differences between humans and others. Yet, Nozick fails to provide a comprehensive proof of his assertion.

The problem with Nozick’s argument is that by our ability to use language he understands the cultural ability of humans to behave as rational animals. At the same time, recent studies outline new evidence that shows that culture and culture-based rationality are not exclusive to humans. Thus, culturally-based explanations for the source of a cardinal discontinuity between men and animals are not sufficient. The argument we must defend in order to refute Nozick’s puzzle is the following: due to our possession of trait R_1 , the set of humans, regardless of the internal heterogeneity amongst the members of the set, cannot be deemed closer to the set of other animals. The modification of the rule required for this is:

There exists a rule R_1 such that the following are simultaneously true:

- (1’) R_1 distinguishes the set of humans (H) from the set of animals (A): HR_1A ;

²⁶ R. Nozick (NR) *The Nature of Rationality*, Princeton University Press, 1993, page 181.

(2') R_1 supports a metric of difference (μ) that distinguishes individuals i and j amongst the humans:

$$i_{\mu}R_{1\mu}j \text{ for all } i, j \in H$$

(3') For any $i, j \in H$ and any $h \in A$ such that $i_{\mu}R_{1\mu}j$, then $i_{\mu}notR_{1\mu}h \wedge j_{\mu}notR_{1\mu}h$.

Such a rule does indeed exist, but it cannot be rationality itself for animal behaviour does exhibit some rational, or at least *rationalisable*, patterns. In other words, animal behaviour can be understood in the context of being able to define objectives, place true assignments and carry out conscious actions that support Bayesian notions of probability. In terms of our previous discussion, when chance of nature converts uncertainty into risk through assignment of Bayesian probability to cause-effect relation between an action and its outcome, animals do appear to possess some capacity to learn the pattern. The only thing that appears to separate us from the animals that is capable of putting an infinite distance between human and animal behaviour is the difference that while we are capable of converting uncertainty into risk by will, animals have to rely on the chance occurrence of such conversion. This is what Nozick calls the capacity of the humans to form *beliefs*. 'The very set up of theories of personal probability... involves the existence or attribution of beliefs to the person whose choices are taken to indicate... probabilistic judgements'²⁷.

Connecting this argument with our discussion of differences between risk and uncertainty, Bayesian theory assigns numerical probabilities to the outcomes, thus acting as a specific, but not universal, mechanism for management of risk. On the other hand, the system of beliefs, perhaps axiomatic, acts to transform uncertainty (lacking prior assignment of probabilities) into risk in a unique autonomous way. Nozick comes close to this realisation when he argues that rationality bears at most an evolutionary function of enabling us to cope with changing reality, i.e. to make conclusions on the basis of our experiences. Yet, according to Nozick, humanity possesses ability to alter the rules of rationality itself. In our view, this requires a wilful reformulation of experiential uncertainty into manageable risk. And this capacity cardinaly changes our relation to risk and uncertainty in such a way as to present a discontinuity in the plane between human and animal domains.

The importance of this assertion in the context of this paper is fundamental. If, as argued here, human ability to convert uncertainty into risk (at will and via the system of creating prior beliefs) differentiates the human domain from that of the animals, then our ownership of uncertainty and risk becomes an inalienable right definitive of self along the lines with the right to body and ability²⁸.

²⁷ R. Nozick, NR, page 95.

²⁸ In his work since the *Anarchy, State and Utopia*, Nozick hints at this possibility. For example 'Perhaps the most effective procedures for arriving at... truths will yield a set of beliefs that is inconsistent. Hence, if truths (are) to be maintained, the set of beliefs had better not be deductively closed' (R. Nozick, NR, page 77) is a statement that opens up a possibility for arguing that in so far as transfers of risk under taxation act to close the set of beliefs (at least in part), such actions of the state must be viewed as a restriction on the basic fundamental right of humanity – the right to form a belief.

Conclusions.

The following paper presents a set of philosophical arguments that extend the standard set of property rights under the classical libertarian perspective to include the individual rights to ownership, management and transfer of risk and uncertainty.

The arguments presented above establish the following. First, we argue that a simple extension of the property rights to include possession of risk and uncertainty with the resulting right to voluntarily manage and transfer risk yields plausible grounds for reinforcing Nozick's entitlement theory of justice. We show that in sufficiency argument, voluntary transfers should be considered just when risk and uncertainty are incorporated into property holdings and transfers of risk under patterned theories of justice are taken into account. We then proceed to defend Nozick's argument that taxation is much closer to forced labour when risk transfers are accounted for than traditional theories of distributive justice would allow.

However, as argued in the paper, property rights extension alone does not support the argument in favour of the minimal state as a necessary condition for justice. To achieve such argument, we extend the argument concerning the inalienable rights to include the rights to risk and uncertainty. We, therefore, address the justification and the implications of the potential incorporation of risk beyond the consideration of property rights alone. In this context we extend Nozick's argument concerning rationality as a separating principle of human nature over and above biological continuum with animal world. As argued, human capacity to form beliefs outside the domain of rational thought represent a stronger argument for separation of animal and human world than a direct reference to rationality alone. This capacity to form beliefs intimately depends on our ability to appropriate and transfer risk and uncertainty. Thus, our rights to independent risk become inalienable in their nature and in so far as any state in excess of the minimal state will redistribute risks in the process of achieving any distributive justice, any state above the minimal state cannot be justified.

We show that in presence of such rights, the infamous Nozickian assertion concerning the potential implications of continuity of the space of rationality with regards to its role in separation of the human domain from that of the other biological species, no longer holds. In addition we establish that incorporation of individual rights over risk and uncertainty into the set inalienable rights allows for resolution of the Hansson's causal dilution problem.

As the result of these arguments, the paper defends classical libertarian postulation that a minimal state with the rights to only minimal consensual taxation for the purpose of defence of the inalienable and property rights is both sufficient and necessary condition for attainment of justice in acquisition, transfer and rectification.

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