Luck: The brilliant randomness of everyday life by Nicholas Rescher (Farrar Straus Giroux, New York, 1995)

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Luck is an underrated phenomenon in Western thought. The religion of the New Testament has no place for luck at all, because it has no place for the underlying engine of luck. Nicholas Rescher is therefore to be commended for tackling luck in a full-length philosophical treatise. But sadly, while he lays many worthwhile foundations, the conclusion one draws from the work is that luck is so pervasive and important that in this case the author has lost his battle with the subject. Rescher has produced a valuable starting point for future enquiry, but failed to bring luck under any comprehensive theoretical canopy. His central thesis is that luck is a pervasive aspect of human life, and he explores several important consequences of this while failing to recognize a few of the most significant.

Rescher begins with a lengthy discussion of the nature and definition of luck, settling on the notion that "Luck is a matter of having something good or bad happen that lies outside the horizon of effective foreseeability." He contrasts this with fortune, which while it may bring things good or bad, does so "in the natural course of things" and not by wild chance. For those of us with a more mathematical bent, this is an unsatisfactory distinction: while our perception of chance is discontinuous, the fact of the matter is that the probability distributions underlying all the faces of chance are continuous, and the quantitative distinction between "the natural course of things" and "against the odds" is not clear. In a world where many starve and still more are poor, am I fortunate or lucky to have been born to well-off parents in a prosperous nation? The qualitative distinctions Rescher makes are inadequate for this determination.

The three necessary features of luck for Rescher are: a subject, an event that brings good or ill to that subject, and the unpredictability of that event. As Rescher clearly recognizes, this implies that luck embeds a normative standard: a socialist may have felt herself lucky to be born in Russia in the early years of this century. A libertarian would not have. The inpredictability of luck implies that the good or bad thing is not the intended and rationally expectable result of the subject's own choices (although such choices may be contributory factors in some cases) and so the normative standard is not strictly speaking a moral standard. Rather, any object that can experience loss or gain may be said to be lucky. To experience loss or gain one must have an interest in the future, and the only objects that have such an interest are living things. Luck is therefore the province of life (all life, not just conscious life as Rescher argues).

The sources of luck Rescher identifies are fourfold: chance, chaos, ignorance and volition. By chance he means the sort of apparently ontological unpredictability that we find in quantum events; by chaos the exponential growth of uncertainty with time in some non-linear systems; by ignorance our limited knowledge of this complex and strongly interacting world, and by volition our inability to see inside the souls of our fellows, and thereby predict their choices. Rescher rightly notes that the specific cause of chance is irrelevant to luck: for someone whose DNA has been malignantly re-arranged by a passing cosmic-ray it makes no difference if quantum mechanical laws are an expression of an

underlying causal structure or if the molecular transitions that will result in a tumour a few years hence are indeed due to ontologically irreducible acausality. In either case, the person is unlucky.

After a pair of chapters on manifestations of luck in life and history, Rescher turns toward the relationship between luck and gambling and the growth of mathematical thinking about probability that he sees as being a result of "...the gambling mania of the soldiers of the Thirty Year's War." In his chapter, Rescher propagates a common and fundamental error regarding the role of luck in human life: he fails to distinguish between cardinal and ordinal values.

Probability calculus deals only with cardinal values: with numerical quantities that have an absolute magnitude and therefore can be manipulated arithmetically. Monetary values are cardinal: four dollars is twice as valuable as two dollars. Moral values are on the other hand ordinal: my wife is more valuable to me than any one of my cats, and all of my cats, and indeed all the cats that could ever be. There is no multiplicative relationship between the value of a cat to me and the value of my wife to me. This difference means that the probability calculus simply does not apply to moral values, and as luck is simply a matter of good or bad happening unexpectedly it is as often a matter of an ordinal good or bad as a cardinal one. This explains why the probability calculus is of so little use in ordinary life, and is a far more fundamental objection than the simple difficulty of knowing the underlying probability density functions in many of life's choices. It also makes clear that Pascal's wager is incoherent. When Pascal adjures one to "Be consistent and do the same in matters of religion" as one does when "evaluating wagers by blending the chances of an outcome with the gain to be realized" he is in fact advocating a gross mathematical inconsistency: that of using a cardinal calculus on ordinal values.

The same error - failing to distinguish cardinal and ordinal values - is made by those who see the marketplace as the model for all human interactions; for instance those who see the relationship between parents and children as fundamentally a contractual one. The market deals with monetary value, a strictly cardinal quality. Moral behaviour deals almost exclusively with ordinal values, and the two are simply not commensurable. The interface between ordinary life and the market is therefore always likely to be a source of friction, as we try to accommodate two incompatible value systems with each other.

To take a trivial example: suppose one of my cats is ill, and the veterinary fee is equal to one month's fees as at my son's school. Furthermore, there is only a 50% chance the cat will be cured by the procedure. On the other hand, there is only a 25% chance that one particular month at school will have any impact on my son's education. Is the money better spent on the cat or my son? Probability calculus cannot help us here, because my son's education is not "X times as valuable" as my cat. It is simply more valuable. How much more cannot be expressed as a multiplicative factor because the values are ordinal. If I were to take my son out of school for a month and take the cat to the vet, the odds favour the cat getting well and my son not being harmed. But in the worst case, which only occurs 12.5 percent of the time, the cat will die and my son will be harmed by the missed schooling. There is no sensible way of quantitatively comparing this outcome to the more positive outcomes, yet in a sense it must be the ruling factor. Moral outcomes often must

be judged in terms of the worst possible result rather than the weighted average of results that applies in the case of cardinal values, simply because the weighted average of ordinally valued outcomes is undefined.

Rescher's subsequent discussion of moral luck is the most deeply flawed section of the book. By taking the view that morality is an intrinsic property of individuals (so that a person may be said to be inherently dishonest, for instance) he requires that there be a god-like observer who is capable of seeing into one's soul and determining one's moral status independently of one's actions. This requirement is clearly both uninteresting and unnecessary if one takes the view that morality is no different from any other property of human individuals. There is no such thing as an inherently strong man: just a man who trains to lift heavy weights versus one who does not. It is true that one's genetic endowment will ultimately determine the maximum weight one can lift. But no one would describe a person who has the genetic endowment of a Hercules and the muscles of a parlour-maid as strong, and it makes no more sense to describe someone who has the intent to steal but not the ability as dishonest. At worst we could say that such a person is potentially dishonest, or more likely than average to become dishonest (just as a genetic Hercules may be more likely than average to become strong).

Rescher never askes: why-ever would one want to judge someone's morals independently of actions? I cannot offhand think of any empirically justifiable reason why this would be important. Nor can I think of any way I could possibly form such a judgment: actions - including for the moment words - are all that are available to me in forming any moral judgment of my fellows. Some clue to Rescher's position may be found in the rather odd moral standard he adopts, in which morality is apparently for some reason identified with "benign self-sacrifice" and is strictly a matter of one's relations with others (Rescher is unaware, for instance, that Robinson Crusoe is more in need of morality than anyone else, for if he is dishonest, he can only misrepresent reality to himself, with very probably fatal consequences). Such a quaintly antiquated view of morality is all very well for third-rate television dramas, but is a little surprising coming from someone described on the flyleaf as one of America's "most eminent philosophers."

There is no more reason to decry the moral condition of the man who behaves morally for lack of opportunity to do otherwise than there is to respect the strength of the genetic Hercules who is, through lack of exercise, a weakling. Gray was correct to elegize "Some Cromwell guiltless of his country's blood" as more worthy than the original. Those who are by circumstance "Forbad to wade through slaughter to a throne, And shut the gates of mercy on mankind," are innocent of these acts, and in justice must be judged as such. To make his case, Rescher must show that morality is different in kind from all other properties of individuals - it simply won't do to assume it without argument, no matter what the historical precedents for doing so.

The book closes with some advice on how to cope with the pervasiveness of luck - a nicely Aristotelian call for prudence - and a summing up that tries to integrate some of the themes of the book into a broader social, epistemological and evolutionary perspective. There is no doubt that luck is central to the human condition, to the extent that everyone reading this comes from a very long line of lucky organisms. But the relationship between

the luck of the individual and the statistically iron laws that arise from it is only touched upon, here and elsewhere in the book with regard to thermodynamics. For most of the past three hundred years a misbegotten notion of Newtonian determinism has set the framework for philosophers' attempts to understand the world. Today we are seeing the rise of evolutionary biology as a new framework that is perhaps better suited to the task: the operation of chance within law, and law via chance, is fundamental to both the biological and social realities of human life. One hopes that others will follow where Rescher has lead, and explore the role of luck in our lives even more broadly and deeply.