

# Morality, Luck, and Freedom

Science Fiction and Philosophy: Course Notes | Brendan Shea, PhD (Brendan.Shea@rctc.edu)

In this chapter, we'll take a look at problems related to "moral luck" and "free will." We'll be reading two stories (by Jorge Luis Borges and Ted Chiang), along with a variety of short philosophical articles.

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## 2 READING: THE LOTTERY IN BABYLON (BY JORGE LUIS BORGES, TRANS. NORMAN GIOVANNI)

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From: <http://www.digiovanni.co.uk/borges/the-garden-of-branching-paths/the-lottery-in-babylon.htm>

Like all men in Babylon, I have been a proconsul; like all, a slave. I have known absolute power, public disgrace, and imprisonment. Behold, my right forefinger is missing. Behold, beneath this rent in my cloak my flesh bears a red tattoo. It is a beth, the second letter of our alphabet. On nights when the moon is full, this symbol grants me sway over men whose sign is a gimel but, at the same time, it makes me subject to those marked with an aleph. They, on moonless nights, owe obedience to men branded with the gimel. In the twilight of dawn, before a black altar deep in a vault, I have slit the throats of sacred bulls. For the space of a lunar year, I was declared invisible. When I cried out, no one answered; when I stole bread, I was not beheaded. I have suffered that which the Greeks did not - uncertainty. In a bronze chamber, confronting the strangler's silent cord, hope did not abandon me; in the river of pleasure, neither did panic. Heraclides of Pontus relates in wonder that Pythagoras remembered having been Pyrrhus and before that Euphorbus and before that some other mortal. In order to remember similar experiences, I have no need to fall back either on death or deception.

I owe this almost hideous alternation in my fortunes to a practice that other republics do not follow or that in them works in an imperfect, secret way. I speak of our lottery. Although I have not delved into its history, I find our sages cannot agree on it. Of the lottery's mighty purpose, I know what a man unversed in astrology knows of the moon. I come from a bewildering country, where daily life revolves round the lottery. Until now, I have given this institution no more thought than I have the behaviour of the inscrutable gods or of my own heart. Here, far from Babylon and its cherished customs, I think back in amazement on the lottery and on the blasphemous speculations about it whispered by men lurking in shadows.

My father used to say that long ago - was it centuries? years? - the Babylonian lottery was little more than a street game. He said (I do not know how true it is) that barbers sold for a few copper coins oblong bits of bone or parchment, marked with symbols. A draw was made in broad daylight, and, without further complication, winners received a handful of silver coins. It was, as you see, a simple arrangement.

Of course, these so-called lotteries failed. Their moral force was nil. They did not take into account all of man's capacities but only his hope. Faced with public apathy, the shopkeepers who set up these venal lotteries began to lose money. One of their number, introducing a reform, added a few forfeits to the winning lots. Accordingly, anyone who bought a numbered ticket faced a twofold contingency - that of winning a sum of money or of paying a fine. These fines were often considerable. Naturally, the slight risk - out of every thirty winning numbers one was unlucky - aroused the public's interest. The Babylonians threw themselves into the game. Anyone who did not buy a ticket was looked on as a coward and a faintheart. In time, this well-deserved contempt grew. Those who did not play were despised, but so were the losers, who had to pay the fine. The Company (as it then began to be called) had to protect the winners, who could not collect their prizes until almost all the fines were in the lottery's coffers. Claims would be made against the losers, and a judge would order them to pay the fine, together with court costs, or spend a few days in jail. To cheat the Company, the losers all chose jail. Out of this defiance by a few the Company's absolute power, its ecclesiastical and metaphysical basis, was born.

Soon after, financial reports gave up listing the fines and took to publishing only the number of days in custody a particular ticket imposed. The omission, which passed almost unnoticed at the time, proved to be of prime importance. It was the first appearance in the lottery of a non-pecuniary element. Success was immediate. On the insistence of the gamblers, the Company found it had to issue more unlucky numbers.

Everyone knows that the people of Babylon set great store by logic and symmetry. It was deemed inconsistent that lucky numbers should be reckoned in coinage and unlucky numbers in days and nights of imprisonment. Certain moralists pointed out that money does not always lead to happiness and that other forms of reward might be simpler.

A further concern swept the humbler neighbourhoods. Members of the college of priests, laying more bets than ever, were able to relish the thrills of impending terror or hope. Not so the poor, who knew, with inevitable and understandable envy, that they were barred from the much-touted delights of the lottery's fluctuations. The right and proper wish that rich and poor participate equally in the game sparked off an indignant protest, whose memory the years have not dimmed. A stubborn few failed to understand (or pretended to fail to understand) that a new order - an inescapable historical advance - was in the making. A slave stole a red ticket, which, when drawn, entitled him to have his tongue burned. This was the same penalty the law imposed for the theft of a lottery ticket. Some Babylonians argued that the man deserved the executioner's branding iron because he was a thief; others, more generous, because it was the luck of the draw.

There were riots, there was regrettable bloodshed, but in the end the will of Babylon's common people prevailed against that of the rich. The citizenry achieved its aims in full. First, it got the Company to take over the reins of power. (This unifying act was essential in view of the breadth and complexity of the operation's new scope.) Second, the citizenry managed to get the lottery made secret, gratis, and available to all. The sale of tickets for money was abolished. Now initiated into the mysteries of Bel, every free man was automatically entered in the sacred draws, which were held in the labyrinths of the god on each sixtieth night and which, until the next round, decided a man's fate. The possibilities were countless. A lucky draw could lead to promotion to the council of sages, to the arrest of a public or a personal enemy, or to a tryst in the hushed dark of a room with a woman who intrigues us but whom we never expected to see again; an unlucky draw, to mutilation, various types of disgrace, or death. Sometimes a single event - the murder of C in some low haunt, the mysterious deification of B - was the happy outcome of thirty or forty draws. Getting the combinations right was tricky, but it should be remembered that Company agents were (and are) shrewd and all-powerful. In many instances, the knowledge that certain lucky draws were simply a matter of chance would have lessened their attraction. To get round this difficulty, agents of the Company resorted to the power of suggestion and sorcery. Their manoeuvrings, their wiles, were secret. To find out everyone's intimate hopes and fears, they used spies and astrologers. Certain stone lions, a sacred privy called Qaphqa, cracks in a crumbling aqueduct - all these, according to popular belief, 'were pathways to the Company'. Both malicious and well-meaning people began informing on each other. Their reports, which were of varying reliability, were collected and filed away.

Unbelievably, the mutterings went on. The Company, with its usual prudence, did not reply directly. Instead, it chose to scrawl in the trash heap of a mask factory a brief explanation, which is now part of holy writ. This tenet affirmed that the lottery is an introduction of chance into the order of the world and that to accept error does not contradict but rather confirms chance. The doctrine further held that the lions and the sacred receptacle, although not unauthorized by the Company (which reserved the right to consult them), operated without official sanction.

This declaration allayed the fears of the public. It also gave rise to other consequences, perhaps not foreseen by its author. The statement profoundly changed the nature and conduct of the Company. I have little time left; we have been told that our ship is about to set sail, but I will try to explain things.

Strange as it may seem, no one so far had come up with a general theory of probability. Babylonians are little concerned with odds. They respect the dictates of chance, to which they hand over their lives, their hopes, and their wild panic, but it never occurs to my countrymen to look into the labyrinthine laws of chance or the

revolving spheres that reveal them. Nevertheless, the semi-official statement I have referred to prompted much discussion of a juridico-mathematical cast. Out of some of this discussion came the following premise: If the lottery is a heightening of chance, a periodic infusion of chaos into the cosmos, would it not be better if chance intervened in all stages of the draw and not just one? Is it not absurd that if chance dictates someone's death the details of this death - whether in obscurity or in the public eye, whether spanning an hour or a century - should not also be tied to chance? In the end, these quite reasonable reservations prompted a substantial reform, whose complexities (weighted by the practice of hundreds of years) only a handful of specialists understand. These complexities I shall try to sum up, albeit in a hypothetical way.

Let us imagine a first draw that sentences a man to death. To carry it out, we advance to a second draw, which comes up with, say, nine possible executioners. Of these, four may initiate a third draw, which will select the name of the actual executioner; two may replace the initial unlucky draw by a lucky one - the finding of treasure, for example; another may enhance the execution - either by bungling it or by enriching it with torture; the last two may refuse to carry out the sentence. This, in theory, is the plan. In reality, the number of draws is infinite. No decision is final, and all can branch out into others. The uninformed assume that infinite draws require infinite time, but the fact of the matter is that time is infinitely divisible, as the well-known parable of the hare and the tortoise teaches us. This infinitude ties in nicely with the sinuous gods of Chance and with the Heavenly Archetype of the Lottery so beloved of platonists. Some garbled echo of our rituals seems to have reverberated along the Tiber. Aelius Lampridius, in his biography of Elagabalus, relates that the emperor wrote on seashells the lots that he intended for his guests, such that one would receive ten pounds of gold, another ten flies, a third ten dormice, a fourth ten bears. It should be remembered that Elagabalus was educated in Asia Minor among priests of the divinity whose name he bore.

There are also impersonal draws, with unspecific aims. One decrees that a Taprobane sapphire be flung into the waters of the Euphrates; another, that a bird be released from a tower roof; yet another, that once a century a grain of sand be removed from (or added to) the numberless grains on a beach. The consequences are sometimes terrible.

Under the Company's benevolent influence, our customs are permeated with chance. Anyone who purchases a dozen amphorae of Damascene wine will not be surprised if one of them contains a talisman or else a viper; the scribe who drafts a contract seldom fails to work in some piece of false information. I myself, in these hasty words, have distorted some of the splendour, some of the cruelty. Perhaps also some of the mysterious sameness. Our historians, who are the shrewdest in the world, have invented a method of adjusting chance. The mechanics of this method are widely known and (generally) reliable, although of course they are never disclosed without a pinch of falsehood. Aside from this, nothing is so tainted with fiction as the Company's history. A stone tablet excavated in a temple may refer to a draw made only the other day or to one made centuries ago. Not a volume is published without some difference in each copy. Scribes swear a secret oath to delete, insert, or change. Evasion is also employed.

The Company, with godlike restraint, shuns all publicity. As is only to be expected, its agents are covert, and the directives it continually (perhaps incessantly) issues are no different from those liberally dispensed by impostors. For who would boast of being a mere impostor? The drunkard who comes out with an absurd order, the dreamer who suddenly wakes and with his bare hands strangles the woman sleeping beside him - are they perhaps not carrying out one of the Company's secret decisions? These silent workings, so like those of God, give rise to all manner of speculation. One is the heinous suggestion that the Company has not existed for centuries and that the hallowed confusion in our lives is purely inherited, a tradition. Another deems the Company to be eternal and teaches that it will endure until the last trumpet, when the last remaining god will destroy the world. Still another holds that the Company is everywhere at all times but that its influence is only over miniscule things - the call of a bird, the hues of rust or of dust, one's waking moments. Another, out of the mouths of masked heresiarchs, 'that it never existed and never will'. Another,

equally base, reasons that to affirm or deny the existence of the phantom corporation is of no consequence, for Babylon itself is nothing more than one unending game of chance.

## 2.1 QUESTIONS

1. What idea does Borges want to present by means of the allegory of a lottery determining all aspects of our lives?
2. Does the last paragraph of the story map onto the ways that different people view the role of luck in life? How so?

## 3 READING: MORAL LUCK (BY JULIAN BAGGINI)<sup>1</sup>

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Mette looked into the eyes of her estranged husband, but could find no flicker of remorse. ‘You tell me you want us back,’ she said to him. ‘But how can we do that when you won’t even admit that you did the wrong thing when you left me and the children?’ ‘Because in my heart I don’t think I did wrong, and I don’t want to lie to you,’ explained Paul. ‘I left because I needed to get away to follow my muse. I went in the name of art. Don’t you remember when we used to talk about Gauguin and how he had to do the same? You always said he had done a hard thing, but not a wrong one.’ ‘But you are no Gauguin,’ sighed Mette. ‘That’s why you’re back. You admit you failed.’ ‘Did Gauguin know he would succeed when he left his wife? No one can know such a thing. If he was in the right, then so was I.’ ‘No,’ said Mette. ‘His gamble paid off, and so he turned out to be right. Yours didn’t, and so you turned out to be wrong.’ ‘His gamble?’ replied Paul. ‘Are you saying luck can make the difference between right and wrong?’ Mette thought for a few moments. ‘Yes. I suppose I am.’

Source: The eponymous essay from *Moral Luck* by Bernard Williams (Cambridge University Press, 1981)

**Commentary:** Luck can mean the difference between success and failure, happiness and misery, riches and poverty, but surely it can’t separate the virtuous from the bad? Whether we are good, decent human beings must depend on who we are and what we do, not what happens beyond our control. That’s what common sense would suggest. But even if luck isn’t the main determinant of moral goodness, can we really be so sure that it has no role at all to play in ethics?

Most fundamentally, there is what is known as constitutive luck. We are born with certain traits and characteristics, and these are developed by the way we are brought up. However, we don’t choose any of this. The result is that, by the time we become old enough to make our own choices, we may already be more or less predisposed towards good or evil than our average peers. A person who reaches this age who finds themselves liable to fly into violent rages is therefore more likely to do wrong, purely as a result of drawing an unlucky ticket in the lottery of genetics and upbringing. Even if we set aside constitutive luck, we are still familiar with the sentiment, ‘there but for the grace of God go I’. We are probably all capable of doing more wrong than we do, and it is partly a matter of luck if we manage to avoid finding ourselves in the circumstances where our darker sides come to the fore. In the case of Paul and Mette, the role of luck is even more pronounced. Mette’s argument is that two people can behave in exactly the same way, unsure of what the outcome will be, and that only when we know if that outcome is good or bad can we say if the person did right or wrong. So a Gauguin who leaves his family and becomes a great artist has made the morally right choice, whereas Paul, who made the same choice but without success, is to be condemned for doing wrong. If that seems an outlandish example, just consider how we are all careless from time to time. If that

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<sup>1</sup> Julian Baggini, *The Pig That Wants to Be Eaten: 100 Experiments for the Armchair Philosopher*, 59639th edition (New York: Plume, 2006), 289–90.

carelessness results in a serious injury, for example, the person who made the slip is seen as morally culpable. If, by chance, our lack of attention has no bad consequences, few will think much worse of us.

### 3.1 QUESTIONS

- (1) Does that suggest there is such a thing as moral luck? Or should we condemn more those whose poor judgements happily have no bad effects?
- (2) Should we say that Gauguin was in the wrong, even though we think that, on balance, it is much better that he did what he did than stayed with his family?

## 4 READING: THE JUST-WORLD THEORY (BY CLAIRE ANDRE AND MANUEL VELASQUEZ)<sup>2</sup>

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Afterwards, they said that the 22-year-old woman was bound to attract attention. She was wearing a white lace miniskirt, a green tank top, and no underwear. At knife-point, she was kidnapped from a Fort Lauderdale restaurant parking lot by a Georgia drifter and raped twice. But a jury showed little sympathy for the victim. The accused rapist was acquitted. "We all feel she asked for it [by] the way she was dressed," said the jury foreman.

The verdict of the jurors in the Fort Lauderdale rape trial may have been influenced by a widespread tendency to believe that victims of misfortune deserve what happens to them. The need to see victims as the recipients of their just deserts can be explained by what psychologists call the Just World Hypothesis. According to the hypothesis, people have a strong desire or need to believe that the world is an orderly, predictable, and just place, where people get what they deserve. Such a belief plays an important function in our lives since in order to plan our lives or achieve our goals we need to assume that our actions will have predictable consequences. Moreover, when we encounter evidence suggesting that the world is not just, we quickly act to restore justice by helping the victim or we persuade ourselves that no injustice has occurred. We either lend assistance or we decide that the rape victim must have asked for it, the homeless person is simply lazy, the fallen star must be an adulterer. These attitudes are continually reinforced in the ubiquitous fairy tales, fables, comic books, cop shows and other morality tales of our culture, in which good is always rewarded and evil punished.

Melvin Lerner, a social psychologist, has conducted a series of experiments to test this hypothesis. In an impressive body of research, he documents people's eagerness to convince themselves that beneficiaries deserve their benefits and victims their suffering. In a 1965 study, Lerner reported that subjects who were told that a fellow student had won a cash prize in a lottery tended to believe that the student worked harder than another student who lost the lottery. In another study a year later, Lerner and a colleague videotaped a simulated "learning" experiment in which it appeared that the "participants" were subjected to electric shocks. Lerner found that subjects who observed the videotapes tended to form much lower opinions of these "victimized" participants when there was no possibility of the victim finding relief from the ordeal, or when the victim took on the role of "martyr" by voluntarily remaining in the experiment despite the apparent unpleasantness of the experience. Lerner concluded that "the sight of an innocent person suffering without possibility of reward or compensation motivated people to devalue the attractiveness of the victim in order to bring about a more appropriate fit between her fate and her character."

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<sup>2</sup> Claire Andre and Manuel Velasquez, "The Just World Theory," Markkula Center for Applied Ethics, November 13, 2015, <https://www.scu.edu/ethics/ethics-resources/ethical-decision-making/the-just-world-theory/>.

If the belief in a just world simply resulted in humans feeling more comfortable with the universe and its capriciousness, it would not be a matter of great concern for ethicists or social scientists. But Lerner's Just World Hypothesis, if correct, has significant social implications. The belief in a just world may undermine a commitment to justice.

Zick Rubin of Harvard University and Letitia Anne Peplau of UCLA have conducted surveys to examine the characteristics of people with strong beliefs in a just world. They found that people who have a strong tendency to believe in a just world also tend to be more religious, more authoritarian, more conservative, more likely to admire political leaders and existing social institutions, and more likely to have negative attitudes toward underprivileged groups. To a lesser but still significant degree, the believers in a just world tend to "feel less of a need to engage in activities to change society or to alleviate plight of social victims."

Ironically, then, the belief in a just world may take the place of a genuine commitment to justice. For some people, it is simply easier to assume that forces beyond their control mete out justice. When that occurs, the result may be the abdication of personal responsibility, acquiescence in the face of suffering and misfortune, and indifference towards injustice. Taken to the extreme, indifference can result in the institutionalization of injustice. Still, the need to believe that the world is just can also be a positive force. The altruism of volunteers and of heroes who risk their lives to help strangers in need is a result of people trying to restore justice to insure that the world remains just. As Melvin Lerner writes, "We have persuasive evidence that people are strongly motivated by the desire to eliminate suffering of innocent victims."

Neither science nor psychology has satisfactorily answered the question of why the need to view the world as just exerts such a powerful influence on human behavior and the human psyche. But the research suggests that humans have a need to bring their beliefs about what is right into conformity with the objective reality they encounter--and that they will work to achieve consistency either by modifying their beliefs or attempting to modify that reality. By becoming more conscious of our own tendencies, we may be more inclined to take the latter approach.

The need to see victims as the recipients of their just deserts can be explained by what psychologists call the "Just World Hypothesis."

#### **Further reading:**

Melvin J. Lerner, *The Belief in a Just World: A Fundamental Delusion*, (New York: Plenum Press, 1980).

Melvin J. Lerner and Sally C. Lerner, editors, *The Justice Motive in Social Behavior: Adapting to Times of Scarcity and Change*, (New York: Plenum Press, 1981).

Zick Rubin and Letitia Anne Peplau, "Who Believes in a Just World," *Journal of Social Issues*, Vol. 31, No. 3, 1975, pp. 65-89.

This article was originally published in *Issues in Ethics* - V. 3, N. 2 Spring 1990

## 5 WHY LUCK MATTERS MORE THAN YOU MIGHT THINK (BY ROBERT FRANK)<sup>3</sup>

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*When people see themselves as self-made, they tend to be less generous and public-spirited.*

I'm a lucky man. Perhaps the most extreme example of my considerable good fortune occurred one chilly Ithaca morning in November 2007, while I was playing tennis with my longtime friend and collaborator, the Cornell psychologist Tom Gilovich. He later told me that early in the second set, I complained of feeling nauseated. The next thing he knew, I was lying motionless on the court.

He yelled for someone to call 911, and then started pounding on my chest—something he'd seen many times in movies but had never been trained to do. He got a cough out of me, but seconds later I was again motionless with no pulse. Very shortly, an ambulance showed up.

Ithaca's ambulances are dispatched from the other side of town, more than five miles away. How did this one arrive so quickly? By happenstance, just before I collapsed, ambulances had been dispatched to two separate auto accidents close to the tennis center. Since one of them involved no serious injuries, an ambulance was able to peel off and travel just a few hundred yards to me. EMTs put electric paddles on my chest and rushed me to our local hospital. There, I was loaded onto a helicopter and flown to a larger hospital in Pennsylvania, where I was placed on ice overnight.

Doctors later told me that I'd suffered an episode of sudden cardiac arrest. Almost 90 percent of people who experience such episodes don't survive, and the few who do are typically left with significant impairments. And for three days after the event, my family tells me, I spoke gibberish. But on day four, I was discharged from the hospital with a clear head. Two weeks later, I was playing tennis with Tom again.

If that ambulance hadn't happened to have been nearby, I would be dead.

Not all random events lead to favorable outcomes, of course. Mike Edwards is no longer alive because chance frowned on him. Edwards, formerly a cellist in the British pop band the Electric Light Orchestra, was driving on a rural road in England in 2010 when a 1,300-pound bale of hay rolled down a steep hillside and landed on his van, crushing him. By all accounts, he was a decent, peaceful man. That a bale of hay snuffed out his life was bad luck, pure and simple.

Most people will concede that I'm fortunate to have survived and that Edwards was unfortunate to have perished. But in other arenas, randomness can play out in subtler ways, causing us to resist explanations that involve luck. In particular, many of us seem uncomfortable with the possibility that personal success might depend to any significant extent on chance. As E. B. White once wrote, "Luck is not something you can mention in the presence of self-made men."

Seeing ourselves as self-made leads us to be less generous and public-spirited.

My having cheated death does not make me an authority on luck. But it has motivated me to learn much more about the subject than I otherwise would have. In the process, I have discovered that chance plays a far larger role in life outcomes than most people realize. And yet, the luckiest among us appear especially unlikely to appreciate our good fortune. According to the Pew Research Center, people in higher income brackets are much more likely than those with lower incomes to say that individuals get rich primarily because they work

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<sup>3</sup> Robert H. Frank, "Why Luck Matters—Much More Than You Think," *The Atlantic*, April 13, 2016, <https://www.theatlantic.com/magazine/archive/2016/05/why-luck-matters-more-than-you-might-think/476394/>.



hard. Other surveys bear this out: Wealthy people overwhelmingly attribute their own success to hard work rather than to factors like luck or being in the right place at the right time.

That's troubling, because a growing body of evidence suggests that seeing ourselves as self-made—rather than as talented, hardworking, *and* lucky—leads us to be less generous and public-spirited. It may even make the lucky less likely to support the conditions (such as high-quality public infrastructure and education) that made their own success possible.

Happily, though, when people are prompted to reflect on their good fortune, they become much more willing to contribute to the common good.

Psychologists use the term *hindsight bias* to describe our tendency to think, after the fact, that an event was predictable even when it wasn't. This bias operates with particular force for unusually successful outcomes.

In his commencement address to Princeton University's 2012 graduating class, Michael Lewis described the series of chance events that helped make him—already privileged by virtue of his birth into a well-heeled family and his education at Princeton—a celebrated author:

*One night I was invited to a dinner where I sat next to the wife of a big shot of a big Wall Street investment bank, Salomon Brothers. She more or less forced her husband to give me a job. I knew next to nothing about Salomon Brothers. But Salomon Brothers happened to be where Wall Street was being reinvented—into the Wall Street we've come to know and love today. When I got there I was assigned, almost arbitrarily, to the very best job in the place to observe the growing madness: They turned me into the house derivatives expert.*

On the basis of his experiences at Salomon, Lewis wrote his 1989 best seller, *Liar's Poker*, which described how Wall Street financial maneuvering was transforming the world.

*All of a sudden people were telling me I was a born writer. This was absurd. Even I could see that there was another, more true narrative, with luck as its theme. What were the odds of being seated at that dinner next to that Salomon Brothers lady? Of landing inside the best Wall Street firm to write the story of the age? Of landing in the seat with the best view of the business? ... This isn't just false humility. It's false humility with a point. My case illustrates how success is always rationalized. People really don't like to hear success explained away as luck—especially successful people. As they age, and succeed, people feel their success was somehow inevitable.*

Our understanding of human cognition provides one important clue as to why we may see success as inevitable: the availability heuristic. Using this cognitive shortcut, we tend to estimate the likelihood of an event or outcome based on how readily we can recall similar instances. Successful careers, of course, result from many factors, including hard work, talent, and chance. Some of those factors recur often, making them easy to recall. But others happen sporadically and therefore get short shrift when we construct our life stories.

Little wonder that when talented, hardworking people in developed countries strike it rich, they tend to ascribe their success to talent and hard work above all else. Most of them are vividly aware of how hard they've worked and how talented they are. They've been working hard and solving difficult problems every day for many years! In some abstract sense, they probably do know that they might not have performed as well in some other environment. Yet their day-to-day experience provides few reminders of how fortunate they were not to have been born in, say, war-torn Zimbabwe.

Our personal narratives are biased in a second way: Events that work to our disadvantage are easier to recall than those that affect us positively. My friend Tom Gilovich invokes a metaphor involving headwinds and tailwinds to describe this asymmetry.

*When you're running or bicycling into the wind, you're very aware of it. You just can't wait till the course turns around and you've got the wind at your back. When that happens, you feel great. But then you forget about it very quickly—you're just not aware of the wind at your back. And that's just a fundamental feature of how our minds, and how the world, works. We're just going to be more aware of those barriers than of the things that boost us along.*

That we tend to overestimate our own responsibility for our successes is not to say that we shouldn't take pride in them. Pride is a powerful motivator; moreover, a tendency to overlook luck's importance may be perversely adaptive, as it encourages us to persevere in the face of obstacles.

And yet failing to consider the role of chance has a dark side, too, making fortunate people less likely to pass on their good fortune.

The one dimension of personal luck that transcends all others is to have been born in a highly developed country. I often think of Birkhaman Rai, the Bhutanese man who was my cook when I was a Peace Corps volunteer in Nepal. He was perhaps the most resourceful person I've ever met. Though he was never taught to read, he could perform virtually any task in his environment to a high standard, from thatching a roof to repairing a clock to driving a tough bargain without alienating people. Even so, the meager salary I was able to pay him was almost certainly the high point of his life's earnings trajectory. If he'd grown up in a rich country, he would have been far more prosperous, perhaps even spectacularly successful.

Being born in a favorable environment is an enormous stroke of luck. But maintaining such an environment requires high levels of public investment in everything from infrastructure to education—something Americans have lately been unwilling to support. Many factors have contributed to this reticence, but one in particular stands out: budget deficits resulting from a long-term decline in the United States' top marginal tax rate.

A recent study by the political scientists Benjamin Page, Larry Bartels, and Jason Seawright found that the top 1 percent of U.S. wealth-holders are “extremely active politically” and are much more likely than the rest of the American public to resist taxation, regulation, and government spending. Given that the wealthiest Americans believe their prosperity is due, above all else, to their own talent and hard work, is this any wonder? Surely it's a short hop from overlooking luck's role in success to feeling entitled to keep the lion's share of your income—and to being reluctant to sustain the public investments that let you succeed in the first place.

And yet this state of affairs does not appear to be inevitable: Recent research suggests that being prompted to recognize luck can encourage generosity. For example, Yuezhou Huo, a former research assistant of mine, designed an experiment in which she promised subjects a cash prize in exchange for completing a survey about a positive thing that had recently happened to them. She asked one group of participants to list factors beyond their control that contributed to the event, a second group to list personal qualities and actions that contributed to it, and a control group to simply explain why the good thing had happened. After completing the survey, subjects were given an opportunity to donate some or all of their reward to charity. Those who had been prompted to credit external causes—many mentioned luck, as well as factors such as supportive spouses, thoughtful teachers, and financial aid—donated 25 percent more than those who'd been asked to credit personal qualities or choices. Donations from the control group fell roughly midway between those from the other two groups.

Experiments by David DeSteno, a psychologist at Northeastern University, offer additional evidence that gratitude might lead to greater willingness to support the common good. In one widely cited study, he and his co-authors devised a clever manipulation to make a group of laboratory subjects feel grateful, and then gave them an opportunity to take actions that would benefit others at their own expense. Subjects in whom

gratitude had been stoked were subsequently about 25 percent more generous toward strangers than were members of a control group. These findings are consistent with those of other academic psychologists. Taken together, the research suggests that when we are reminded of luck's importance, we are much more likely to plow some of our own good fortune back into the common good.

In an unexpected twist, we may even find that recognizing our luck *increases* our good fortune. Social scientists have been studying gratitude intensively for almost two decades, and have found that it produces a remarkable array of physical, psychological, and social changes. Robert Emmons of the University of California at Davis and Michael McCullough of the University of Miami have been among the most prolific contributors to this effort. In one of their collaborations, they asked a first group of people to keep diaries in which they noted things that had made them feel grateful, a second group to note things that had made them feel irritated, and a third group to simply record events. After 10 weeks, the researchers reported dramatic changes in those who had noted their feelings of gratitude. The newly grateful had less frequent and less severe aches and pains and improved sleep quality. They reported greater happiness and alertness. They described themselves as more outgoing and compassionate, and less likely to feel lonely and isolated. No similar changes were observed in the second or third groups. Other psychologists have documented additional benefits of gratitude, such as reduced anxiety and diminished aggressive impulses.

Economists like to talk about scarcity, but its logic doesn't always hold up in the realm of human emotion. Gratitude, in particular, is a currency we can spend freely without fear of bankruptcy. Indeed, if you talk with others about their experiences with luck, as I have, you may discover that with only a little prompting, even people who have never given much thought to the subject are surprisingly willing to rethink their life stories, recalling lucky breaks they've enjoyed along the way. And because these conversations almost always leave participants feeling happier, it's not hard to imagine them becoming contagious

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This essay is adapted from Robert H. Frank's new book, *Success and Luck: Good Fortune and the Myth of Meritocracy*.

Robert H. Frank is an economics professor at Cornell University. He is the author of *Success and Luck: Good Fortune and the Myth of Meritocracy* and *Under the Influence: Putting Peer Pressure to Work*.

## 5.1 QUESTIONS

1. Robert H. Frank invokes Tom Gilovich's analogy of tailwinds and headwinds to explain why we tend to discount luck in our successes. Explain.
2. If our successes are not all due to talent or hard work, but to a large part also to luck, then does this give us more of a reason to be grateful? Why shouldn't we be equally grateful for our talents and the opportunity to put in hard work?
3. Robert H. Frank argues that with the realization that our successes are largely due to luck comes public-spiritedness. Why might this be the case?

## 6 BRENDAN’S NOTES: THE LOTTERY IN BABYLON AND THE PROBLEM OF MORAL LUCK

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In the lesson, we’re going to be thinking about **Jorge Luis Borges’** short story “The Lottery in Babylon” (originally published in 1941), and what it can tell us about the problem of **moral luck**.

**About the Author** (adapted from Wikipedia). Jorge Francisco Isidoro Luis Borges Acevedo 24 August 1899 – 14 June 1986) was an Argentine short-story writer, essayist, poet and translator, and a key figure in Spanish-language and international literature. His best-known books, *Ficciones* (Fictions) and *El Aleph* (The Aleph), published in the 1940s, are compilations of short stories interconnected by common themes, including dreams, labyrinths, philosophers, libraries, mirrors, fictional writers, and mythology. Borges's works have contributed to philosophical literature and the fantasy genre, and influenced the **magic realist** movement in 20th century Latin American literature. M. Coetzee said of him: "He, more than anyone, renovated the language of fiction and thus opened the way to a remarkable generation of Spanish-American novelists." His short stories are full of various philosophical/ethical puzzles.

### 6.1 THE STORY: A SUPER QUICK OVERVIEW

Here are the main elements of the story:

**Character:** There is only one character—the narrator of the story. He tells us right away that he has occupied basically every possible position within his society, from leader to slave. He seems to have no consistent job, relationships, or even “sense of self.” What’s going on?

**Setting.** The answer lies in the setting, which is a fictional version of “Babylon” where citizens fates are decided by the actions of the “Company.” The Company decides whether you will be poor or rich, powerful or powerless, and whether you will murder or help people. Everyone does exactly what the Company wishes them to, which may change from moment to moment. As we proceed through the story, we discover that it’s not actually clear (a) how the Company communicates with the citizens or (b) if the Company even exists.

**Plot.** There is no traditional “plot.” Instead, the narrator tells about the history of how the company evolved. It seems to go something like this:

1. In the beginning, it was just an ordinary lottery run by the Company, where some people won money.
2. People thought it was more exciting if people could LOSE something by playing. So, the lottery board began taking people’s money, and then imprisoning them, etc.
3. Eventually, the poor rise up against the rich, and demanded the Company take over the government.
4. The lottery is made *completely free and secret*, in part because certain sorts of good outcomes (such as meeting the love of your life) wouldn’t feel as “good” if people knew they were the result of the lottery. Similarly, bad outcomes might be easier to deal with if you thought “I can avoid this next time!” rather than having to know “it was just the random chance of fate.”
5. By the end of the story, no one has ever seen or interacted with the Company, and it’s not even clear if the Company really exists. It’s unclear whether the story we’ve been told to this point is *true*, or whether it’s just some sort of religious myth. Some (but not all) people like to think that the Company has *reasons* for the things it does, and that you can perhaps influence the Company’s decisions by behaving in certain ways.

6. The narrator closes by noting a few different “theories” people in his society have about the Company. These theories are pretty clearly meant to be analogues of the way people in *our world* have attempted to make sense of things. The fact that none of these theories “work” is thus a pretty big problem.

## 6.2 THE PROBLEM OF MORAL LUCK IN BABYLON

One problem suggested by the story is that what philosophers have sometimes called **moral luck**. Here’s the basic idea.

**Introducing the “Control Principle.”** Most people (including most people who’ve written or thought about ethics, from philosophers to religious leaders to lawmakers) have the strong intuition that *people can only be responsible for what they are in control of*. Philosophers call this the **control principle**. For example:

1. If you hit a person with a car because you were texting back your sister, you are *responsible* for that. You were in control of your decision to text. You might even get sent to prison.
2. If you hit a person with car because they suddenly jumped out from behind a tree in front of your car (far too quickly for you to stop), you are not responsible. You weren’t in control of this! You should legally be in the clear, even if you feel badly.
3. The control principle is pretty central to the way we think about morality!

In Babylon (at least from what we can tell), things don’t quite work this way. Instead, punishments are handed out randomly. But why is this? Does their world actually work differently than ours? Or have they just realized something that we don’t/can’t admit is true of our own world as well?

**Why “Moral Luck” Raises Problems For the Control Principle.** In the late 1970s, the philosophers Bernard Williams and Thomas Nagel presented a series of arguments that seemed to show that the control principle is false. In particular, they gave a number of examples that seemed to show that the “morality” of an action often depends on factors that are out of our control. So, let’s return to the example of the text-messaging driver. The following sorts of “luck” all seem to be involved:

- **Resultant Luck.** Sometimes the morality of our actions depends on “how things turn out.” For example, the text-messaging driver has no control over how quickly the pedestrian can move out of the way. However, there is a big moral (and legal) difference between (a) narrowly missing a pedestrian, (b) hitting and injuring a pedestrian, and (c) hitting and killing a pedestrian.
- **Circumstantial Luck.** Other times the morality of our actions depends on circumstances beyond our control. For example, in the era before mobile phones were invented, the text-messaging driver might well have been a perfectly responsible driver. This circumstance (the invention of mobile phones) is obviously beyond the driver’s control.
- **Constitutive Luck.** The way we act is partly a function of “who we are”, in terms of both our genetics and how our parents raised us. The text-messaging driver was born with a sister that loved to text-message, a background/worry of love/care about this sister, and a predisposition (based on genetics and/or upbringing) to have “poor impulse control.”
- **Causal Luck.** Finally, there is the fact that we ultimately live in a world governed by the “laws of nature.” We are all made of atoms, electrons, quarks, etc., and there is *absolutely nothing we do to violate the “laws of nature” that govern the behavior of these particles*. At this level of description, it looks like we have no control of anything we do. It’s ALL a matter of “luck.” (This is closely related to the **problem of free will**).

In Babylon, people seem to have *accepted* the idea of these different types of moral luck, and have entirely jettisoned the Control Principle. They see all human actions are being entirely a matter of luck (or fate).

- Did Jones murder Smith? That must be what the Company willed. You can't blame Jones, and there's probably no point in punishing him (since punishment is itself a matter of "luck.")
- Why is Tracy richer than Sam? That was just the role of the dice—it has nothing to do with "hard work" or "desert."

**The Big Question: Is the Babylonian way of understanding the world *better* or *worse* than our own way of understanding it?**

### 6.3 JUST WORLD FALLACY

The failure to recognize the fact of "moral luck" is closely related to what psychologists have called the **Just World Fallacy** (or "**Just World Hypothesis**"). This fallacy has the following form:

1. A bad (or good) thing has happened to Person/Group X.
2. Therefore, Person/Group X must have done something to *deserve* X. After all, the world is a "just" or "fair" place.

This fallacy can, at times, be useful. For example, suppose that I get a D on an exam (this is bad!). If I think to myself "I deserve this because of my poor study habits" this might cause me to work harder in the future. The problem is that "just world thinking" can easily lead to **victim-blaming** when we start applying it more broadly. (This has been backed up by numerous psychological experiments). For example:

1. Many bad things (over many, many years) have happened to Jewish and African American people. It must be that they *somehow* *deserved this*.
2. My partner is abusive toward me. It must have been something I did.
3. I'm super-duper rich! I'm clearly more talented than everyone else, and deserve everything I got. It would definitely be unfair to ask me to share my wealth with others.
4. My child is so well-behaved and my brother's child is so naughty. It's clear that I am an awesome parent and he is a terrible one.

The problem with this way of thinking is that it ignores that huge rule that luck/chance plays in all of these things. For example, there is no "good reason" why certain groups have been singled for horrible treatment (other than the "accidents" of history). The same thing holds in the case of the abusive partner, the super-duper rich person, and the well-behaved child. While it's certainly true that we have *some* control over these things, we have lots and lots (and lots and lots) of evidence that much of this lies *outside of our control*. Failing to recognize this can make us insensitive to the suffering of others (and even to our own suffering!).

In Babylon, by contrast, people seem to have entirely reject just-world thinking. For example, they have clearly rejected the idea that some people "deserve" to be rich and powerful, while others "deserve" to be poor and powerless. This, however, leads to its own complications, and they seem to take no "ownership" over their own lives, and the things that happen to them.

**Question: To what extent do you think *you* are prone to "just-world thinking"?**

### 6.4 REVIEW QUESTIONS

1. How do you think the citizens of Babylon *should* think about the Company, if they want to lead good/happy lives? Should they agree it is "real"? Should they accept its judgements as "fair"? Is it

better to think as everything due to “chance”? Or is it better to think of things as reflecting some secret plan of the Company?

2. Explain the “control principle” in your own words, and give an example of how it functions in moral reasoning. Do *you* accept the control principle?
3. Give an original example of each of the following types of moral luck: (1) resultant luck, (2) circumstantial luck, and (3) constitutive luck.
4. Explain the Just World Fallacy, and give an original example of it.
5. Besides the issues mentioned above, what did *you* find interesting about the “Lottery in Babylon”?

## 7 READING: WHAT'S EXPECTED OF US (BY TED CHIANG)<sup>4</sup>

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This is a warning. Please read carefully.

By now you've probably seen a Predictor; millions of them have been sold by the time you're reading this. For those who haven't seen one, it's a small device, like a remote for opening your car door. Its only features are a button and a big green LED. The light flashes if you press the button. Specifically, the light flashes one second *before* you press the button.

Most people say that when they first try it, it feels like they're playing a strange game, one where the goal is to press the button after seeing the flash, and it's easy to play. But when you try to break the rules, you find that you can't. If you try to press the button without having seen a flash, the flash immediately appears, and no matter how fast you move, you never push the button until a second has elapsed. If you wait for the flash, intending to keep from pressing the button afterwards, the flash never appears. No matter what you do, the light always precedes the button press. There's no way to fool a Predictor.

The heart of each Predictor is a circuit with a negative time delay — it sends a signal back in time. The full implications of the technology will become apparent later, when negative delays of greater than a second are achieved, but that's not what this warning is about. The immediate problem is that Predictors demonstrate that there's no such thing as free will.

There have always been arguments showing that free will is an illusion, some based on hard physics, others based on pure logic. Most people agree these arguments are irrefutable, but no one ever really accepts the conclusion. The experience of having free will is too powerful for an argument to overrule. What it takes is a demonstration, and that's what a Predictor provides.

Typically, a person plays with a Predictor compulsively for several days, showing it to friends, trying various schemes to outwit the device. The person may appear to lose interest in it, but no one can forget what it means — over the following weeks, the implications of an immutable future sink in. Some people, realizing that their choices don't matter, refuse to make any choices at all. Like a legion of *Bartleby the Scriveners*, they no longer engage in spontaneous action. Eventually, a third of those who play with a Predictor must be hospitalized because they won't feed themselves. The end state is akinetic mutism, a kind of waking coma. They'll track motion with their eyes, and change position occasionally, but nothing more. The ability to move remains, but the motivation is gone.

Before people started playing with Predictors, akinetic mutism was very rare, a result of damage to the anterior cingulate region of the brain. Now it spreads like a cognitive plague. People used to speculate about a thought that destroys the thinker, some unspeakable lovecraftian horror, or a Gödel sentence that crashes the

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<sup>4</sup> Ted Chiang, “What’s Expected of Us,” *Nature* 436, no. 7047 (July 2005): 150–150, <https://doi.org/10.1038/436150a>.

human logical system. It turns out that the disabling thought is one that we've all encountered: the idea that free will doesn't exist. It just wasn't harmful until you believed it.

Doctors try arguing with the patients while they still respond to conversation. We had all been living happy, active lives before, they reason, and we hadn't had free will then either. Why should anything change? “No action you took last month was any more freely chosen than one you take today,” a doctor might say. “You can still behave that way now.” The patients invariably respond, “But now I know.” And some of them never say anything again.

Some will argue that the fact the Predictor causes this change in behaviour means that we *do* have free will. An automaton cannot become discouraged, only a free-thinking entity can. The fact that some individuals descend into akinetic mutism whereas others do not just highlights the importance of making a choice.

Unfortunately, such reasoning is faulty: every form of behaviour is compatible with determinism. One dynamic system might fall into a basin of attraction and wind up at a fixed point, whereas another exhibits chaotic behaviour indefinitely, but both are completely deterministic.

I'm transmitting this warning to you from just over a year in your future: it's the first lengthy message received when circuits with negative delays in the megasecond range are used to build communication devices. Other messages will follow, addressing other issues. My message to you is this: pretend that you have free will. It's essential that you behave as if your decisions matter, even though you know that they don't. The reality isn't important: what's important is your belief, and believing the lie is the only way to avoid a waking coma. Civilization now depends on self-deception. Perhaps it always has.

And yet I know that, because free will is an illusion, it's all predetermined who will descend into akinetic mutism and who won't. There's nothing anyone can do about it — you can't choose the effect the Predictor has on you. Some of you will succumb and some of you won't, and my sending this warning won't alter those proportions. So why did I do it?

Because I had no choice.

## 8 READING: FREE WILL AND MORAL RESPONSIBILITY (BY CHELSEA HARAMIA)<sup>5</sup>

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### 8.1 LIBERTARIAN FREE WILL

Those who claim that we have libertarian free will argue that we make free choices when it is possible that we could have done otherwise than what we actually did.<sup>2</sup> When this condition obtains, we are justified in blaming (or praising) the person who made the choice, i.e., holding that person morally responsible for the action.

The idea that we possess free in this sense will has a lot of intuitive force behind it, but philosophers have struggled with the question of what could allow for free will in the face of concerns about the causal laws of the world.

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<sup>5</sup> Chelsea Haramia, “Free Will and Moral Responsibility,” *1000-Word Philosophy: An Introductory Anthology* (blog), June 2, 2014, <https://1000wordphilosophy.com/2014/06/02/free-will-and-moral-responsibility/>.



## 8.2 HARD DETERMINISM

Hard determinists appeal to the causal laws of the world in order to challenge the claim that we have free will, in the sense of ‘free will’ that both they and libertarians accept. Everything that happens can be fully explained by the causal history of what happened before. Though it seems as if we have choices, it is always the case that, for any choice we are faced with, only one of the seemingly available paths will ultimately be taken, and the other paths were never truly available: we cannot do otherwise.<sup>3</sup> To suggest that we have free will is to suggest that we are somehow outside of and unaffected by the causal chain of events—that we can be the sole source of our actions—and the hard determinist argues that this is unsupported by facts about how the world works.<sup>4</sup>

## 8.3 COMPATIBILISM

The hard determinist may then find this to be proof that moral responsibility is an illusion, or she may attempt to retain a viable sense of moral responsibility in the face of determinism. Compatibilists argue for the latter: they claim that determinism and moral responsibility are actually compatible.<sup>5</sup> By appealing to claims about an agent’s internal states, compatibilists argue that people can be held responsible when they are acting according to certain sorts of dispositions, e.g., their own beliefs and desires. And others have pointed out that we still have strong intuitions of responsibility even about cases that are explicitly deterministic.<sup>6</sup>

## 8.4 REVISIONISM/ILLUSIONISM

The power of these intuitions of responsibility cause some hard determinists to argue for a revisionist approach. They accept that appeals to moral responsibility are theoretically unjustified, but they nonetheless assert that we are pragmatically justified in accepting the illusion that people actually have moral responsibility, because practices of praising and blaming are still useful, and abandoning them could lead to chaos.<sup>7</sup>

## 8.5 INCOMPATIBILISM

Finally, there are those who maintain that determinism and moral responsibility are utterly incompatible. Importantly, both hard determinists and libertarians about free will may hold this view. The libertarian can then tout this incompatibility as a virtue of his view. If the two really are incompatible, then only libertarian free will allows us to retain our very commonsense intuitions of moral responsibility.<sup>8</sup> The hard determinist will bite the bullet and claim that, if the two really are incompatible, we are being intellectually dishonest by maintaining practices of moral responsibility, given that we can always trace the causes of an action to something that is ultimately fully outside of the control of the agent.<sup>9</sup>

This is an ancient philosophical problem that has given rise to an expanding and ever more nuanced set of views. But we can all agree that anyone who grapples with the problem of free will must also take seriously questions of moral responsibility.

# 9 BRENDAN’S NOTES: CHIANG’S PROBLEMATIC PREDICTOR

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Ted Chiang’s story “What’s Expected of Us” (included in this chapter) is a very short story about a technology that can predict human behavior with 100% accuracy. It was published in *Nature*, which is major scientific journal (this is pretty unusual for a short story). It raises important philosophical, scientific, and practical problems about both the possibility of free will and the importance of the human *belief* that we have free will.

**About the Author (adapted from Wikipedia):** Ted Chiang (born 1967 in New York) is an American science fiction writer. His work has won four Nebula awards, four Hugo awards, the John W. Campbell Award for Best New Writer, and four Locus awards. His short story "Story of Your Life" was the basis of the film *Arrival* (2016). Both of his parents were born in Mainland China and immigrated to Taiwan with their families during the Chinese Communist Revolution before emigrating to the United States. His father Fu-pen Chiang is a professor emeritus of mechanical engineering at Stony Brook University. His Chinese name is Chiang Feng-nan (姜峯楠). He graduated from Brown University with a computer science degree. He had been submitting stories to magazines since high school and after attending the Clarion Writers Workshop in 1989 he sold his first story, "The Tower of Babylon", to the *Omni* science magazine.

## 9.1 SUPER-SHORT STORY SUMMARY

Chiang describes a fictional machine/toy that lights up exactly one second BEFORE someone decides to push a button. Here's the deal:

- It never lights up if you never decide to push it. You can't "fool" it by pretending to push the button.
- It will ALWAYS light up exactly one second before you push the button.
- It is a "perfect predictor", and the scientists hope/expect to improve on it, so that it can predict human behavior further and further in advance. (So, instead "you will push a button in one second", it might be "you will decide to stand up in exactly 22.1 minutes.").
- After playing with the machine for a few weeks (and presumably trying and failing to "beat it"), many people have a bad emotional reaction to it, as they come to see they don't "really" have free will.

That's it!

## 9.2 DETERMINISM, FREE WILL AND MORAL RESPONSIBILITY

You might think "Well, what's the big deal? Chiang's story is about a fictional device. It has nothing to do with MY life." Unfortunately, things aren't so clear cut. After all, so far as we know, there's nothing physically *impossible* about Chiang's hypothetical device. Scientists ARE getting better at predicting (and even controlling the behavior of animals and humans by looking at brain activity. In fact, the sort of device described by Chiang—which predicts a specific bodily movement before you consciously "decide" to do it, seems very much within the realm of possibility.

This all relates closely to what philosophers have called **the problem of free will**. Roughly this problem goes as follows:

1. Most people believe that they have "control" over their own actions, and thus have "free will". This include both trivial actions (such as choosing what to eat for breakfast) and much more important issues (I choose who to marry, or whether to drink and drive).
2. The assumption of free will is pretty central to the way we hold other people *morally and legally accountable* for their actions. For example, most people assume that murderers *deserve* punishment in large part because they *chose* to do this action. For example, driving a car into someone intentionally (because you are angry with them) is very different from hitting someone with a car because your breaks failed.
3. The naïve picture of free will is threatened by **determinism**, which is the thesis that everything that happens in our world is the result of physical processes. "Free will" seems to have no place in this picture. While the basic idea behind determinism is pretty old (going back to at least the ancient Greeks), the main argument for it is the *success of science and technology*. Sciences such as physics, chemistry, biology, and neuroscience are much, much better at predicting and explaining the world around us than our ancestors dreamed possible.

- a. In Chiang's story, it is the continued advance of technology that convinces people to abandon free will.
- 4. There are few main "solutions" to the free-will problem, each with its own problems:
  - a. **Incompatibilist** accounts of free will claim that "Determinism and Free Will can't both be true. One must be abandoned." The incompatibilists who choose free will are called **libertarians about free will**. The ones who choose determinism are called **eliminativists about free will**. The problem for both views is to explain why it's OK to abandon idea they dislike (determinism or free will).
  - b. **Compatibilist** accounts of free will claim that there's actually no contradiction between free will and determinism. They claim, for example, that we can have "free will" even if our actions are "determined" by the laws of physics. Free will, on this view, is only threatened by things like external threats ("He pointed a gun at my head and *made* me do it") or internal problems ("I was so drunk that..."). The problem for compatibilists is to explain why most people DO feel that their free will is threatened by determinism (as evidenced by Chiang's story!).
  - c. **Revisionist** account of free will claim that our *current* ideas about free will (and about moral and legal accountability) are broken, since they don't agree with modern science (and determinism). So, we just need to come up with "revised" ideas about how free will, morality, etc. work. The problem: How?

### 9.3 QUESTIONS

1. Do you think that the device in Chiang's story is really possible? Why or why not?
2. How do you think YOU would react to playing with the device that Chiang describes? Why?
3. In what ways might society change if people stopped believing free will? Do you think this would improve society? Make it worse? Make no difference at all?