# A betting man's reflections on money[1]

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*Abstract*

Part 1 describes my life as a betting man, starting out as a teenager in Manchester and achieving some success as a student at Cambridge. When asked in 2007 why I took up economic anthropology, I replied that I want to save my family from the financial holocaust to come.  In Ghana I assumed the role of a criminal entrepreneur. Later I moonlighted for *The Economist* and worked as a development consultant. Spells of betting were intermittent – speculation on housing prices, cocoa futures, exchange-rate futures and FX trading. In all this my interest was to learn more about money at a practical level; I had no desire to get rich.

Part 2 offers some anthropological reflections on money. Popular and semi-scholarly literature on money illuminates the tragic human division between the few who make it and the many who take it (if they can). Three stories have long circulated side-by-side in money-making circles: the economists' belief that you cannot beat the markets; another that you can with inside knowledge (which is illegal); and a third that scientific methods can guarantee steady profits from gambling on asset prices. My childish experiment in scientific betting was saved by deep empirical knowledge of horse-racing. Money shares some of the features of religion and this constitutes an obstacle to introducing democracy to its organization. The essay concludes with some observations about money in a human economy.

## Part one A life of betting

### *My apprenticeship*

In 1955, when I was 12 years old, I realised that I did not want a job like my Dad's when I grew up. Most evenings he would come home and express his frustration to our mother. He knew his job better than anyone, but his bosses often made him do it their way, usually for the worse. Moreover, promotion was unfair. The surest route to advancement was to tell the bosses what they wanted to hear. My father told it how it was and this did him no favours. As the oldest of four children and with a father disabled by a war injury, he had left school when he was 14 to work in a factory. By attending night school until he was 21, he acquired the equivalent of a degree in electrical engineering from Manchester "Tech" (now UMIST) and joined the telephones branch of the General Post Office. But he remained stuck in the manual grades twenty years later. As it happened, he later won promotion to the managerial grades and retired from a relatively senior post in British Telecom during the early 1970s. But none of that seemed likely when I decided to take up betting.

I formed a fear of being owned by a single employer that has stayed with me since. I suppose I would now call it fear of being a proletarian. I was already embarked on a career of passing examinations into what I naively imagined were the free professions, a world of self-organized work, with the obvious choice being the academy, since I was already in school. I had been the first boy from our inner city district to win a place at Manchester Grammar School. I made it onto the front page of the local newspaper. But it was a lonely and competitive life and I had no precedents or home advice to draw upon. When I was eight, we visited an aunt in Bedfordshire and took a day trip to Cambridge. I asked why they had so many churches and was told that these were schools, not churches. Apparently I said, “When I grow up, I want to go to a school that looks like a church”. This became enshrined in family myth as “Keith wants to go to Cambridge”.

The trouble was I didn’t know how much I had to do to get there. As a teenager, I ended up doing 40 hours of homework a week, while travelling to and from a day school. I became obsessed with mastering the forms of being examined. I hated the impersonal procedure of being assessed in that way. There’s a scene in the film *Billy Elliot* where a miner’s kid is waiting to know if he has been accepted by the Royal Ballet School. Eventually, a buff envelope arrives with his name on it and his father tells him to open it. He refuses. That binary moment, when remote anonymous examiners say yes or no, is unbearable when measured against a child’s life and hopes. I too could not stand having no relationship with my potential executioners. I set about trying to influence them. I imagined an examiner in his 50s, on his fourth whiskey. It is 1 am and he is very tired. I knew I would do well enough to succeed, but what happens if he just passes over my paper for the sake of getting done and gives it a B? I needed to get his attention. I had already studied calligraphy and developed a handwriting style that was pleasant to read and avoided forward-sloping (extravert), backward-sloping (introvert) and big loops (psychotic). But I needed something else. I decided to insert a joke in the first paragraph. He might not like it, but at least he was now reading; and, if he liked it, I was even further ahead. This impulse to bridge the gap between impersonal society and me is what led me eventually to anthropology and much later to the study of money. But I get ahead of myself.

As a 12-year-old I was already committed to passing exams, but what if I failed the exams? The last thing I wanted was a job like my Dad’s, indeed any job in a bureaucracy. I had to find enough money to live on through something other than normal work. How do you make money without working? The only method I could think of was betting on the horses. Of course I had no money to bet with, but I set out to learn about horse-racing. My father’s *Manchester Guardian* was no good, but my grandma, who lived across the street, got the *Daily Express* which devoted several pages to the topic and had the best tipsters (The Scout and Peter O’Sullevan), so I borrowed it from her every day. I made notional bets and kept a record of the returns in a notebook. After three years I was making a regular profit on paper. I also now had some money, from a paper round and from fiddling my daily expenses for food and travel. So I started making small cash bets. In the next couple of years, I sometimes worked for wages in the holidays and my betting habit expanded accordingly. All the time I accumulated knowledge of the horses. My notebook still showed a small profit.

All this changed when I won a scholarship to Cambridge at the age of 18. The big shock was to get my grant cheque and scholarship in three instalments *in advance*. This came to £420 a year in 1961 (£8,700 today). I now had capital for the first time in my life and six years of grubbing around the bottom end of the market for betting on the horses now paid off. I realised that I had acquired substantive knowledge of the British "form" over a continuous and extended period. I hardly wanted to get thrown out of Cambridge for bad debts. But I knew that occasional bets made on a hunch would sooner or later have that result. I would have to make a science of betting. I knew that three variables mattered most in an extended betting sequence: the total fund available, the risk of losing it all and the size and speed of making bets. Most punters have only a little money and they try to win a lot occasionally. So they lose. The winning recipe is to have a lot of money in reserve and to bet to win a small amount often. This is in fact the recipe for capital accumulation across the board and it now drives stock markets in a computerised form.

*"Scientific" betting at Cambridge*

I devised a method from scratch that has some well-known features, but they were not well-known to me then. They also have well-known flaws (not to me at first) and I found my way past those through trial and error. My basic method was something called a *martingale*, an 18th-century French system of doubling up on bets with a 50 per cent probability of winning, such as the toss of a coin. The binomial theorem tells us that the chance of losing such a bet 10 times in a row is 1 in 512 (2 to the powers 0–9). If I placed bets to the value of a 500th of my stake on horses starting at around evens, I had a 0.2 per cent chance of losing the lot. I figured that I could reduce this risk by drawing on my knowledge of horse racing (six years' worth by now). This meant that, with a fund in the bank of £100 (over £2,000 today), my initial stake on a bet should be no more than 4 shillings (£4 today).

The next problem was to make these bets fast enough. I chose to bet on all favourites starting between evens and 2 to 1 against. This allowed for the payment of betting tax on winnings. Odds-on bets made doubling up on losses impossibly risky. Favourites in Britain win one in three races on average. I could not afford the time to select bets based on studying form, so I made them mechanically until I reached four consecutive losses. The fifth bet in a losing sequence meant placing a bet around 16 times the original stake to win it back (over £3, now £64). At this point I slowed down and picked my bets, using my knowledge and best guesses. In four years as an undergraduate, the longest losing sequence I had was seven bets, meaning that the seventh bet cost over 60 times the original stake in order to recoup my losses (£12 or an eighth of my total fund, £250 now). It wasn't a pleasant experience – my hands were shaking and I was sweating -- but I only had to endure these extended losing runs two or three times.

Operating this system wasn't even the main problem. In Britain the gatekeepers (bookmakers, casinos) have the legal right to refuse anyone a bet. They are especially likely to do so if they believe he is operating a scientific system like card counting at blackjack or using a martingale on red or black at roulette. When my system settled down, I made an average 8 per cent on turnover. I disguised the regularity of this return by spreading my custom between three betting shops and varying how much I won or lost at each, so that I came across as a high-volume punter who didn't cost them much. I stopped keeping a record after a while since I knew by then that I couldn't lose.

I made occasional bets outside my system. I had an ally in the college kitchen manager whom the students condescended to (he had a fake posh London accent that didn't conceal its working class origins) by addressing him with his surname. I called him "mister". We shared a consuming interest in betting on the horses. He would give me tips he got from Newmarket, racing headquarters only a few miles from Cambridge. Once he told me that three horses from the Jarvis stable were going to win at Yarmouth that day. They would start at short odds, so it was worth betting on them as an accumulator treble. I put £5 on the treble (which was a lot then, £100 now). The first horse won at evens, the second at 6-4 on. The third drifted out in the betting to 8-1…and won! The treble paid off at 30-1: £150 (a term's stipend or £3,000 today).

My friend liked me enough to introduce me to the Cambridge underworld which met in a large mobile home that doubled as a strip club on the Newmarket Road. The main currency of Cambridge crime then was food, supplied by college kitchen managers to Cypriot restaurateurs. Students paid for their meals in advance, but they were so bad that they sometimes paid to eat at the Cypriot restaurants instead. There was an incipient Italian mafia based on cement, construction and pizza. Otherwise the denizens of the strip club included the usual bent policemen and former jockeys from Newmarket. One of my side lines was playing cards for money: three-card brag with Northern working class students and bridge for high stakes with the rich boys. My first decade, when I learned to play cards really well for my age, paid off at this time.

Overall, I roughly doubled my grant each year. In all my time as an undergraduate, I never worked for wages, took no money from my parents (although I used their home for free board and lodging) and had enough money to pay for my drinking bills, buy a lot of books and cinema tickets and take two-month holidays in the Aegean every summer. My social anthropology supervisor, Jack Goody (see Chapter 15), suggested Newmarket horse-racing as a suitable topic for my doctoral research; but I didn't fancy ending up under a truck on the Newmarket Road and went to Ghana instead, which I laughably thought would be safer.

Spending two years on fieldwork in Ghana for a PhD in social anthropology ruined my betting career. I lost track of the British horse-racing form and no longer received a regular grant cheque when I returned to write up. I kept betting on the horses at first, but unsystematically and without a capital reserve. Eventually, I was forced to acknowledge that my net returns were under a few shillings an hour. I was also married to someone else without an income. It made more sense to write my thesis and get an academic job. A PhD required more work than my undergraduate degree in any case.

This put an end to me betting in the formal sense, although I milked the 1970s housing boom while buying and selling four houses in short order. I learned quicker than most that moving often and being indebted over your head as a property-owner was a path to riches in times of high inflation. In the United States during the early 1980s I kept a gambling stake of $25,000 which deployed for short periods in New York betting on cocoa futures and in Chicago I bet on exchange-rate derivatives for a while. Money market futures were invented at the Chicago Mercantile Exchange in 1972, a year after the dollar was unpegged from gold. Agricultural markets are the most volatile of all and the farmers who sold pork bellies to German supermarkets could not predict what they would receive some months down the line. I dabbled in dollar-deutschmark exchange rate futures, using my gambling fund. I had a front seat at what became known as 'financialization', the process whereby finance replaced production and marketing as the main preoccupation of industrial corporations, which I called 'virtual capitalism' in my book on money (Hart 2000:157-165).

*Economic anthropology*

In 2007 I was asked at a conference why I chose to study economic anthropology. I replied that I wanted to save my family from the coming financial holocaust. This was partly true. I have always considered anthropology to be a way of improving my own practical understanding of the world. When I switched from the classics, my first passion was the anthropology of religion, but for my doctoral research I opted to study migrant politics in the new West African nation of Ghana. When I got there, I discovered that it was a police state and nobody wanted to talk about politics. So I turned to the street economy of the slum I lived in. It turned out that my Manchester upbringing had prepared me more effectively to investigate the economy than I had imagined. In any case, my own economic relations gave me plenty to think about. I never set out to study an economic culture ("Tell me how you do that"), but rather entered a dialogue with individuals as an actor myself. Thus a woman approached me for a loan to start selling sugar lumps outside her front door. I asked how much she was selling them for. The answer was four lumps for a penny. I told her that she could still make a profit if she sold them five for a penny. Yes, she said, but the other women would beat me up. That is how I learned.

I lived in a criminal bad lands and my landlord was a small-time gangster. Betting in Cambridge – not to mention growing up in Old Trafford, Manchester -- had already exposed me to the seamy side of economy. As a teenager, my hero in fiction was Raskolnikov, the deracinated student in Dostoevsky's *Crime and Punishment* who believed that you have to be a criminal to do something new. So I wasn't a virgin when I decided to cross the line and join the criminal element in Nima, the Accra slum I lived in. I went into partnership with my landlord. The deal was: I put up the cash, he supplied the knowhow, I got the field notes and we split the profits 50/50. Try putting that to a research ethics committee. Our main business was receiving stolen goods. I went out with the pickpockets, became a usurer, forged receipts for stolen goods, fenced drugs seized by the police and foreign currency from the soldiers. I was one of the few people, apart from Lebanese shopkeepers, who knew the difference between hard and soft currencies.

We tried 'legitimate' speculation, such as hoarding bags of maize against seasonal price fluctuations. My partner hadn't done this before, but every year the price doubled between harvest-time and the following spring. We soon found hidden expenses and worse. First, a porters' ring took a cut just for lifting each bag from the truck onto the ground. The bags needed to be turned out periodically to avoid rot and we had to buy insecticide against the weevils. Then, just when the price had doubled, American PL480 aid flooded the country with maize and it went back to what we paid originally. To recover our costs, we had to sell the bags on credit with all the hassle that involved. There is more to trade than the headline rate of profit. Moneylending was a failure too. I learned the hard way that it isn't the rate of interest, but the default rate that counts (and a propensity for violence, which we lacked). Our core fencing business was profitable, however.

The money I made became an embarrassment. I tried to give it away. At one point I employed seven research assistants; hosted sheep, rice and beer parties; made gifts of blankets and sandals to old people. But this redistribution only boosted my renown as a big man and the flow of stolen goods increased. There were two social categories in the migrant community I studied – a floating sea of single young men and married elders whose houses were islands of stability in the tide. Without being aware of it, I moved from one class into the other. I did manage to get rid of the money before I left. It just took extra effort.

You can imagine that this hands-on approach to field research posed problems for writing up a thesis. I ended up representing my own experience in the third person. When I finished writing it, I felt that I understood Accra's street economy as well as the inmates, if not better. But, like them, I had no explanation for the great events that had shaken Ghana's political economy a decade after independence: the collapse of the world cocoa price, the ensuing scarcity of goods, the army coup which overthrew President Nkrumah. I had been surprised by how easy it was for me to make money and how difficult to get rid of it. I was ignorant of the history which might help me to account for this situation. Ghanaians wore cloth from Manchester, but I had little idea how it came about or what it meant.

So I set out to learn more about the history of colonialism and its successor, 'development'. More than anything, I wanted to enter the world of states and international agencies. So I joined an academic consultancy organisation at the University of East Anglia. Before long my conversations with development economists paid off and I was able to transform my Accra ethnography into a means of entering the debates of the day about urban unemployment in the Third World. I was helped in this by moonlighting for *The Economist*, producing regular reports on West Africa. This taught me to write in what I call 'Economese' (how to sound like an economist without any formal training in the discipline). In the process I spawned the idea of an 'informal economy' (Hart 1973) a concept whose inter-disciplinary success is still a source of wonder to me. Over the next decade I worked as a consultant on development policy in the Cayman Islands, Papua New Guinea, Hong Kong (Hart 2002) and West Africa (Hart 1982), while retaining steady employment as a university lecturer in anthropology.

When I was asked by LSE to give a Malinowski lecture, I chose the topic of money (Hart 1986). I later became a small publishing and internet entrepreneur as the digital revolution in communications took off in the 90s (Hart 2009). I agreed to write a text book, *Anthropology and the Modern Economy*, but withdrew it because its objective style left no room for my personal engagement with the economy. In choosing another project, I asked myself what future generations would find interesting about us. The answer seemed obvious enough: the rise of the internet. I recalled the minor success I had had with my Malinowski lecture and started writing about how the digital revolution was transforming money (Hart 2000). There was plenty of me in that book. At the same time, I relocated to France and South Africa, which gave me an incentive to explore the betting possibilities in FX markets. When asset markets were highly volatile and interest rates on savings near zero, I tried to take advantage of medium-term shifts in relationships between sterling, euro, US dollar, Swiss francs, yen, Norwegian krone and South African rand, all (with the exception of Japan), countries in which I had a direct interest and firsthand knowledge. On balance I did quite well.

When I retired from British universities in September 2008, my pension immediately lost 30% of its value in France. Hence my reply when I was asked why I am an economic anthropologist. I am a teacher for sure, but I learn best when I try to figure out things that directly impact on my own family's wellbeing. A youth spent passing exams and betting on the horses was the matrix for this life trajectory. In old age, I fancy myself as a prophet. Betting is fine training for that job. I also have a science fiction murder mystery on the backburner, *Futures or who killed Don Quick?*

## Part Two Some anthropological reflections on money

*Making and taking money*

Oswald Spengler's *The Decline of the West* (1918) had a major impact on American cultural anthropology between the wars, particularly on Ruth Benedict. He argued that the power of number and money to separate and depersonalize was fundamental to our understanding of the history of civilization. For the Greeks, number was *magnitude*, the essence of all things perceptible to the senses. Mathematics for them was thus concerned with measurement in the here and now. All this changed with Descartes whose new number-idea was *function* -- a world of relations between points in abstract space. Now a passionate Faustian tendency towards the infinite took hold, married to abstract mathematical forms that freed themselves from concrete reality the better to control it. In economic life, a parallel shift took place from thinking in terms of goods to thinking in terms of money. When a businessman signs a piece of paper to mobilize remote forces, this gesture stands in an abstract relationship to the power of labour and machinery, only taking the form of money numbers in a retrospective accountancy process. Thinking in money generates money. It turns the world into subjects and objects-- a few executives and those who follow their orders. Each person either joins the money force or is shaped by it as part of the mass.

According to this line of thinking, the difference between how the "masters of the universe" approach money and the cultural habits of people who have very little of it is crucial. The latter still count it carefully as a measure (when they know how to count in the first place), while the former understand that its potential is less tangible. We might make a distinction, therefore, between those who participate in what Spengler called "the money force" and their victims who don't. We could label them the 'makers' and the 'takers' of money. There is some truth in this crude bipolar model, but a focus on gambling breaks it down. For a large number of people without much money, in making bets, open up the chance to participate actively in the money force, not just as a passive bystander.

The money-makers, at least since Frank Knight's *Risk, Uncertainty and Profit* (1921), have been able to distinguish between future threats that are calculable (risk) and those that are not (uncertainty). Whereas to you or me a barn burning down is an unpredictable disaster, insurance companies can assess quite closely the probability of such an event in a given area and share the risk between those willing to pay a premium. This elementary principle was forgotten in the decades of the credit boom, so that the insurance giant AIG undertook liabilities that its assets were unable to cover in the event of a crash. The computer programs of some banks issuing mortgages could not even simulate a downturn in housing prices.

Yet we were told that capitalism had entered a new and eternally progressive stage, where rational calculation of financial outcomes was rapidly making a unified world market. 'Quants', often with physics degrees, created formulas to take advantage of minor discrepancies in markets (*arbitrage*).

Thus insurance against bad weather for Caribbean hotels and against injury to major league baseball stars are two separate things. But a quant might find a mathematical connection between them. A derivative would then be constructed on that basis and the corporation issuing it would make a lot of money until others noticed and joined in. Soon where two markets had existed, there would be one. And this process was multiplied on a massive scale.

Alexandra Ouroussoff (2010) identified the rating agencies as the principal source for a belief that the risk of future losses could be known in advance and factored into share prices, whereas corporate executives tend to be empiricists who know that all futures are uncertain. They prefer to float a number of lines and hope that one of them scores big. But their need for investment capital led them to cook their books in conformity with the agencies' expectations. In this climate, the investment banks came to think of themselves as invincible and Western capitalism took an unsustainable form. Well-established truths, such as what goes up always comes down in real estate markets, were forgotten in the rush for fat salaries and bonuses. Belief in the efficiency of the 'free market', as propagated by an army of economists, journalists and politicians, took hold in the money-maker class especially. Gillian Tett (2009) tells how she was denounced as unpatriotic by leading figures in the City of London, as well as by her employers at the *Financial Times*, for expressing doubts about the soundness of the market for credit derivatives.

Sometimes books written for the popular market are more revealing than most academic texts. One of them was Nassim Nicholas Taleb's *The Black Swan* (2007). Taleb is a homespun philosopher and successful trader in financial instruments. He holds that unexpected events of large magnitude and consequence play a dominant part in history, especially in the history of markets. Such events, considered to be extreme outliers in terms of probability, play much larger roles than regular occurrences. High-impact, hard-to-predict events with disproportionate consequences go beyond the realm of normal expectations in history, science, finance and technology. The probability of such rare events is not computable using scientific methods; but it is possible to hedge against them. The psychological biases that make people blind to uncertainty and unaware of the massive role of rare events in history have already been discussed systematically in books like this that span popular and academic markets.

Elie Ayache (2010) seeks to refute Taleb in *The Blank Swan: the end of probability*. According to him, there is no point in seeking to calculate trends in market prices or even to hedge against rare events. The swan is neither black nor white, but a blank sheet on which the proactive trader writes his derivative. Ayache follows Quentin Meillassoux (2008) in arguing for the reinstatement of contingency over probability, a position I have some sympathy for.[2] The book is undeniably difficult. Some reviewers have suggested that it is a philosophical joke (but then French intellectuals do like to entertain). A short article, "I am a creator" (the reference is to the movie, *Barton Fink*), is more accessible (Ayache 2008). Most traders use the Black-Scholes-Merton model when pricing options, a practice that Taleb thinks is simply wrong. But Ayache has a more dialectical approach. What matters is to make the market while being in it, to be a "dynamic trader". Such a person "both makes the market and is dictated (*sic*) the market. He can both be an original author and yet be-in-the-market." (Ibid: 37). "Market-makers are thinkers and creators … (They) need both the model and the market. Because they make markets, they need to produce prices as outputs of pricing models. However, because the market is the outside (and cannot be their fabrication) that they should as market-makers-thinkers always be reaching for, they also need prices to be the inputs of their models…A market-maker makes a price only in so far as the market makes it." (Ayache 2008:46). I will return to this paradox at the end.

William Poundstone is another popular writer whose theme is close to our own. His book, *Fortune's Formula: The untold story of the scientific betting system that beat the casinos and Wall Street* (2006), appeals to me because its central message is congenial. His impressive canvas covers the last half of the twentieth century, taking in the inventor of information theory, the Chicago mob's racing scams, Paul Samuelson, Rudy Guiliani's crusade against insider trading, junk bonds and, of course, Black-Scholes-Merton. He reminds us that three stories have long circulated side-by-side in money-making circles: the economists' belief that you cannot beat the markets; another that you can with inside knowledge (which is illegal); and a third that scientific methods can guarantee steady profits from gambling on asset prices. There is plentiful material here for a novel on betting. Poundstone may not meet Ayache's philosophical standards, but he offers much support for the thesis that the rich rely heavily on personal relations for knowledge and contacts, even if the intellectual disciplines that dominate public education represent society as being governed by impersonal forces.

There is almost no public education about money in Western schools; and middle-class parents do their best to shield their children from direct experience of it for as long as possible. Paul Samuelson used to say in the introduction to his best-selling textbook *Economics* (Samuelson 1989) that 10 million New Yorkers go to sleep every night confident that the economy will still be there the next morning; but how do they know? In *Money: Whence it Came, Where it Went* (1975), J.K. Galbraith tells a story from the 1960s about a member of Kennedy's administration being paid off with a directorship of a bank. After his first meeting, he was seen walking down Wall Street in a daze, muttering "I never knew. I never knew." What had he not known? Galbraith surmises that he may have learned the first principle of modern banking: take money from one party and lend it to another, then persuade both that they still have it.

Perhaps money truly is a phantom conjured up by unscrupulous wizards (Baum 1900). In which case, most of us would rather not know. We prefer to believe that we are standing on solid ground, that the money we live by is real and will not go away. Failing that, we pay experts to look after the problem and are reassured by the sound of their technical jargon. In either case, understanding is unnecessary. That is why inflation is so upsetting: when the value of money refuses to stand still, what else is there to rely on? Fear of the unknown leads us into a crippling search for certainty in monetary affairs; and this is as much an obstacle to effective understanding as was the old-time religion it so closely resembles.

Perhaps for this reason most people are extremely tenacious of their ill-formed views of the money system they have grown used to. I know from personal experience that they refuse to be told that there are viable alternatives to working for wages and pensions, such as scientific gambling or do-it-yourself trading circuits such as LETS (Hart 2000). Successful capitalists draw on large reserves and make small bets often; but most punters lose in the long run by trying to win a lot with a little occasionally. This is the source for the dogma that the bookie or the casino must always win. Perhaps believing that makes it more tolerable to sacrifice our lives to an economic system stacked against us. It is the same with resistance to community and complementary currencies (Blanc 2010). When told that we can produce our own money with its own trading circuit, without earning wages in order to spend it, most people would rather turn away.[3]

*The religious obstacles to democratizing money*

To understand the social force of religion, one has to enter the minds of believers. Searching for the source of money's power is like asking how God gets us to believe in Him. Of course we made him up, just as we made and make money up. Since all we can ever know is the past, why would anyone accept a claim to guarantee an unknowable future? But we do, because we have to--and faith is the glue sticking past and future together in the present. Simmel (1900) made a good case for why money is able to make this spurious claim. Since all the ephemeral transactions we wish to calculate are made in terms of it, money seems to be more stable than the rest, even though we know it is not really. The river bank seems to be solid and yet in reality it is just slower-moving deposits thrown up by the fast-moving water. But, if we are drowning, we settle for its presumptive stability. The physicist may have worked out what is going on at an abstract level, but for practical purposes we do not need to know what he knows about the movement of particles.

Given the cultural longevity of money in its present form and the powers of indoctrination held by ruling institutions, it is not surprising that most people are initially reluctant to embrace new approaches to finance; but the situation is psychologically complex. Conventional money flatters our sense of self-determination: with some money, we can exert power over the world at will, moving from infinite potentiality to finite determination, back and forth. Yet there is another kind of comfort in the notion that money, as presently constituted, is not in our control at all. The fact that it embodies an exogenous force of necessity serves, in a manner analogous to number, to generate clarity of judgment and action where otherwise things might be frighteningly wide open. Similarly, if they issued their own currencies, people would not only be freer, but would have greater responsibilities also.

There is a strong parallel with slavery. People feel that the monopoly claimed by national money must be inevitable, since no-one would freely choose it. To be told that there is an alternative we could choose makes nonsense of a lifetime's enslavement to an unrewarding system. So we cling to what we know as the only possibility. We often talk about wanting to be free, but we choose the illusion of freedom without its real responsibility. This is perhaps why we prefer money not to be of our own making. We spend it, but we never have enough of it because 'they' keep it scarce. This is perhaps the underlying reason why eminently sensible schemes for do-it-yourself money get such a poor reception. It is not enough to develop a superb design for exchange circuits employing community currencies. People have to be sold the idea; and this involves engaging with their most cherished beliefs.

The word 'belief' originally meant 'something held dear', which is to say that exchanges involving money entail at some level a vision of humanity bound by mutual love (Hart 1988). This is how the young Marx ends his remarkable essay on "The power of money" in the 1844 manuscripts: "If you love without evoking love in return, i.e. if you are not able, by the manifestation of yourself as a loving person, to make yourself a beloved person, then your love is impotent and a misfortune" (Marx 1844).

In sum, I have long held that rationality works best backwards, as rationalization. We are surrounded by uncertainty because the future is unknowable and, to an unprecedented degree, modern societies train their members to expect to nail down future time. Precise calculation of future financial outcomes is a chimera, one of the principal causes of the recent collapse. What we can do is to apply reason to explaining past events and this is scientific method. Extrapolation from the past to the future is where it all breaks down. Knowledge and experience can play a more subtle role when we seek to manage uncertain futures on a looser empirical basis. Betting is one way that such experience may be acquired

Looking back at my childish experiment in scientific betting, it seems barely credible that I survived, even less that I prospered a little. What saved me from the martingale was my empiricism. I knew a lot about the horses. I would probably have made more money without my system, but we all need props to judgment. I have learned, however, never to bet on something I don't know very well. More important, those early forays into gambling gave me a different attitude to money. I did not accept that I was inevitably a victim of the market economy and I took that attitude to my excursions into economic anthropology. It has been central to a lifetime of learning by doing. I would now emphasize how betting teaches us about money; and that leads me finally to money practices as a form of religious life (Hart 2011).

Religion belongs to a set of terms that also includes art and science. It is a measure of the declining intellectual credibility of the established religions that science, which began as a form of knowledge opposed to religious mysticism, is now more often opposed to the arts. If science may crudely be said to be the drive to know the world objectively and art is mainly a means of subjective self-expression, religion typically addresses both sides of the subject-object relationship by connecting what is inside each of us to something outside. Religion binds us to an external force while empowering us to act as a subject; it stabilizes our meaningful interactions with the world, providing an anchor for our volatility.

Durkheim's last book, *The Elementary Forms of the Religious Life* (1912), is his most neo-Kantian work. Compared with his reductionist sociological approach of the 1890s, this study of religion conforms quite closely to my definition above. He divided experience into the known and the unknown. What we know well is everyday life, the mundane features of our routines, and we know it as individuals trapped in a sort of private busy-ness. But this life is subject to larger forces whose origin we do not know, to natural disasters, social revolutions and, above all, death. We desperately wish to influence these unknown causes of our fate which we recognize as being both individual and collective in their impact. At the very least we would like to feel they were less uncertain and to establish a connection with them. For Durkheim, religion was the organized attempt to bridge the gap between the known and the unknown in our lives, between a profane world of ordinary experience and a sacred, extraordinary world located outside that experience. What is ultimately unknown to us is our collective being in society. Through ritual we worship our unrealized powers of shared existence, society, and call it God. Society lies within each of us as well as outside. The chaos of everyday life attains some stability to the degree that it is informed by beliefs representing the social facts of a shared collective existence. Ritual instils these collective representations in each of us.

Assisting with the publication of Roy Rappaport's *Ritual and Religion in the Making of Humanity* (1999) sharpened my appreciation of Durkheim's perspective, since it is an extended reflection on ritual as the ground where religion is made. Rappaport's own definition starts from an emphasis on formality, invariance and tradition to build an analysis of ritual which, for comprehensiveness and consistency, has no parallel in the literature. He did not believe that a Durkheimian approach to religions must rest on a sharp division between the spheres of the sacred and the profane; nor do I. The project of achieving our potential to be collectively human is, in a sense, barely begun. It is entailed, however, in our origin as a species, according to Rappaport in the discovery of language and with it religion. Religion, which is constantly being made and remade through ritual, is how we get in touch with the wholeness of things ('holiness'). Human society has a precarious unity defined by our common occupation of this planet. Rappaport considered money to be a false religion, preferring ecology to economics as cosmological grounds for a new world religion that is compatible with scientific law.

*Money in a human economy*

In contrast, I have come to recognize some of money's redemptive qualities (Hart 2000) and to link them to the idea of a "human economy" (Hart 2017).[4] Ethnographic particularism lies at the heart of the idea of a human economy. The basic assumption is that we have to start with people where they live and what they do, think and want; but somehow also take into account that all human beings share a common predicament, as humanity.

Lindiwe is a woman of late middle age from Durban, South Africa. She once worked in a factory and is now a domestic worker; rents accommodation from the municipality; travels to and from work in informal minibuses; looks after her mother who receives a state pension and her brother's young daughters since he has AIDS; her teenage sons are unemployed and drifting into crime; her husband disappeared over ten years ago; she sells cosmetics to neighbours in her spare time; attends a prosperity church and has joined a savings club (*stokvel*) there; she owes money to loan sharks, but doesn't have a bank account; she shops once a week in a supermarket and at local stores the rest of the time. Note the complexity of her economic arrangements and the variety of sources she draws on, few of them directly linked to South African capitalism. Lindiwe understands her own life better than anyone else. But there are questions she doesn't know the answers to: Why are there no longer mining jobs for the men? Why are the schools failing? Why has a Black government done so little to alleviate poverty and inequality?

The human economy approach does not assume that people know best, although they usually know their own interests better than those who presume to speak for them. An economy must be based on principles to be discovered and articulated. In origin the word focused on budgeting for domestic self-sufficiency; political economy promoted capitalist markets over military landlordism; national economy sought to equalize the chances of a citizen body (Hann and Hart 2011: chapter 2). The idea of a human economy is a way of envisaging the next stage linking unique human beings to humanity as a whole, synthesizing the historical sequence, house-market-nation-world, in an on-going process of extending society through the economy. Lindiwe could not juggle all the institutional facets of her life without money. Money and markets are intrinsic to our human potential, not anti-human as they are often depicted. Of course they can and should take forms that are more conducive to economic democracy. Her unanswered questions require a new kind of political education for answers, but one grounded in the circumstances she knows well.

I am still struggling with these issues. But I do know that an economy, to be useful, should be based on principles that guide what people do. It is not just an ideology or a description. The social and technical conditions of our era -- urbanization, fast transport and universal media -- should be at the heart of an inquiry into how the principles of human economy might be realised now. I suggest to readers of this book that gambling may often be a ritualized form of engagement with society through money. The difference between a gambler and Elie Ayache's dynamic trader may just be one of degree, not kind. Betting inserts a person into money and markets as an agent who takes and makes them at the same time. There is some satisfaction in that, regardless of profit and loss. Most card games, whether played for money or not, offer a similar experience which, with repetition, may become a source of knowledge and skill with applications well beyond the card table.

I cannot resist ending reflexively with the source of this essay itself – writing. If you recall, writing lies at the heart of Ayache's account of pricing an option. If I once inserted myself as an agent into the world of money through betting, no practice of mine now conforms more closely to Durkheim's social model of religion than writing. This is first a struggle to get something out that was previously an undifferentiated part of our internalized experience. It then becomes a sort of two-way traffic between inside and outside, as we read and correct the object that our subjectivity has made, add new elements and revise some more. Later, we circulate it privately to readers and eventually to the anonymous world of a print or online text. It is a lonely occupation. Nothing ever comes back that remotely matches our effort in excavating a text. Writing is at once a deeply personal introspective act and a ritual that joins us to society as a meaningful actor. I often think of money practices this way and it was betting that taught me that.

As the man said, we make history, but not under circumstances of our own choosing.[5] I am a creator. So are we all creators. I said that.

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[2] Having lost my grandfather, mother and sister to statistically remote probabilities in NHS hospitals, I need no reminding about the power of contingency. I was offered a prostate operation and declined on the grounds that I could end up dead. On being told that the chance was small, I replied yes, but I would be dead.

[3] I once saw a documentary about millenarian movements in the Backlands of Brazil. A communist agitator from Sao Paulo meets a peasant who expects Saint Sebastian to lead an army out of the sea that will overthrow the landlords. He asks him "How can there be God when he makes you suffer so much?" The peasant replies "How can there not be God, for without him our suffering is meaningless?"

[4] See Hart (2008), Hart, Laville and Cattani (2010), Hann and Hart (2011), http://web.upa.c.za/humaneconomy.

[5] "Men make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly encountered given and transmitted by the past" (Marx 1852).

Every man and his dog is betting on basic football arbs (the type I showed above where you place a back bet at the bookie and lay off the same team at Betfair) and it is very easy for bookies to spot the mass traffic. But if you are the only person placing a bet on that specific arb opportunity you may avoid their notice.Â  Bet as part of a team and make money arbing together. You can only have one account at each bookie. And if you lose that one account it is terrible. You have been cut off from all those beautiful arbs with no chance of reprieve. To avoid this you could team up with a small group of likeminded arbers. Together you can pool your money and profits while each person tries a different tactic on their personal accounts. One member then getting gubbed isnâ€™t the end of the world. Now, I'm not a gambler by any means. But I have made enough money from bookmakers in just six months to pay for an Â£860 flight (return) to Australia using matched betting. And I've got some company too after walking a good friend through this risk-free technique. The result is this guide, where I'll share the exact steps with you too, including screenshots and a free oddsmatcher tool. Why should I trust this guide? What I'm teaching you here is a completely legal, tried-and-tested method called 'matched betting'. Matched betting basically allows you to turn the ta Build your betting bankroll, steadily increase the amount you bet on each game, and soon enough you'll find you're making some decent pocket money on the side, and maybe, just maybe, if you stick with it long enough, you can make a living wage out of it. Never forget: Betting, like any other form of serious investment, is a marathon, not a sprint.Â  If you want to make money, you need to start with a betting bankroll capable of absorbing losses. If you're going to bet in units, with an average bet of 1 unit, we would recommend a bankroll of at least 50 units. Minimum.