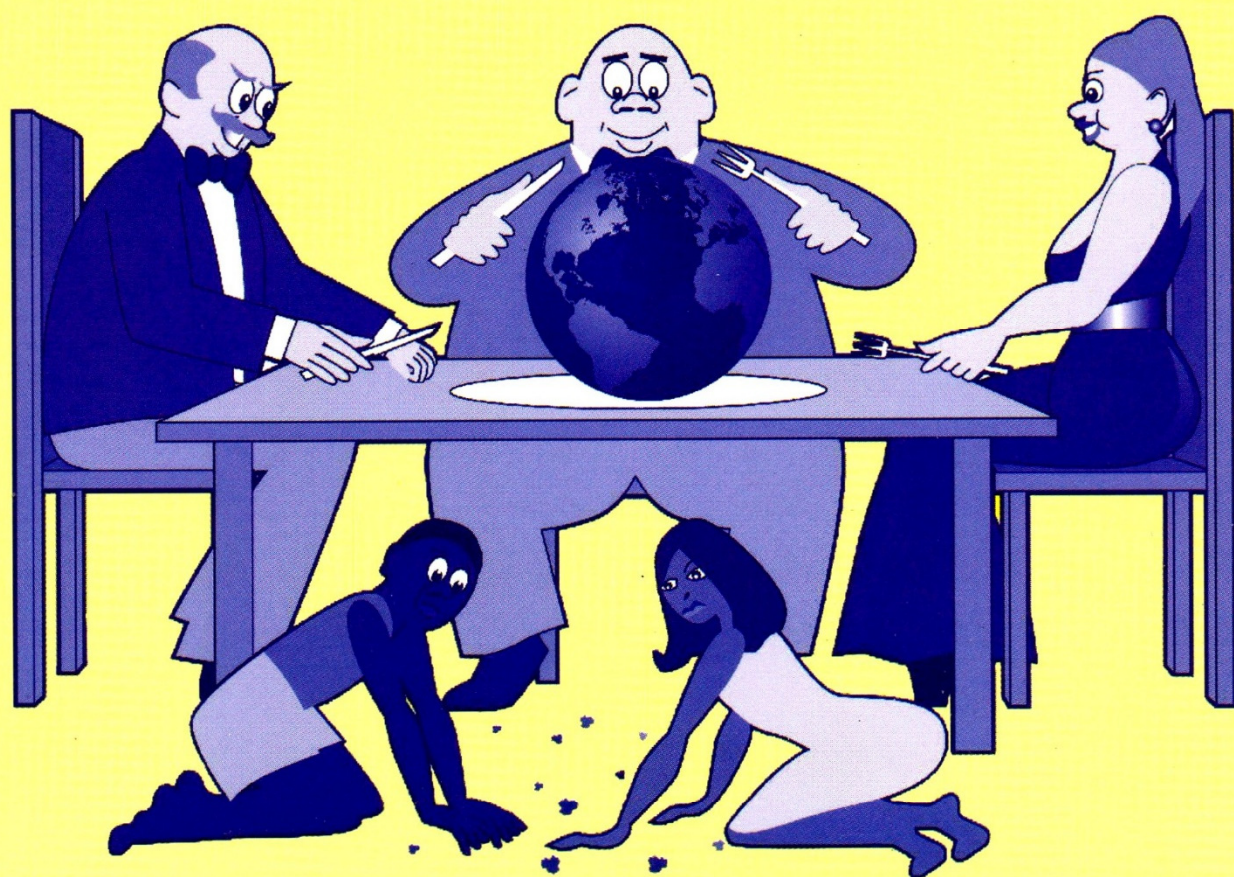


**IT'S NOT AS SIMPLE  
AS THAT**



**Julien Evans**

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*All the events herein are fictitious apart from the September 11 atrocities, Hurricane Katrina and the fatal railway accidents at Quintinshill (1915) and Harrow (1952). The railway operational procedures and systems are fictitious. The non-fiction exception is the 4-aspect colour light signal equipment. The purpose of the narrative is to highlight the importance of human factors in the operation of safety-critical systems.*

*Cover image by Mark Tattam*

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## CHAPTER 7

Let me start by introducing myself. For those of you who don't know me, I am a senior driver with South Midland, based at High Wycombe. I've been with South Mid since before privatisation. Like most of the private companies we've had our troubles and our customers still refer to us as the Sorry Mistake.

The good news is that the directors have come to realise that a well-trained, motivated, properly-rewarded workforce actually improves the efficiency of the railway business. It's a pity it's taken them so long to discover what a child of eight could tell you - if you treat people well they will work better for you than if you bully or threaten them. And it's pleasing to see some of the ancient rolling stock finally being carted off to the breakers' yard. But we can only give the directors two

cheers. The modernisation and new investment is still too slow. This country's railway system is a good example of the old saying that the British way is 'muddling through with inadequate resources.' For example, we lag behind most other developed countries in replacing diesel traction with electric, so we're pumping out more carbon dioxide per train mile than the others. Not good in a world that needs to decarbonise quickly.

You'll be pleased to hear that today I'm not going to stir up an argument as to whether the funding available is better spent on upgrading current rail lines rather than high speed trains. Of course the idealists will say - both!

I have two areas of concern in the activities of our Union. Firstly, most of you will know that I am Vice-Chairman of the Working Practices Committee and that I also serve on the Train Operating Companies' Arbitration Board. This work takes up about two thirds of my Union time. The rest of it is spent on Developing World problems. I'm proud to say that we're in the forefront of British Trade Union activity in this area and I'm proud to be Chairman of the Developing World Aid Committee. On which subject - we have recently been invited to join the Socrates programme set up by a group of charities. Socrates stands for Social Responsibility Awareness Training and I'll be talking about it later on.

I am standing for re-election to the National Executive so that I can continue my work on the committees I serve on. I have been involved with industrial relations work for the Union for nearly twenty years.

Improving working conditions in the Developing World is an important part of our union activity. We're doing a lot in this area but I'd like to see us do more. We've been through difficult times in this industry and maybe we've been so wrapped up in our own troubles that we've forgotten about people less fortunate than ourselves. As trade unionists we ought to be persuading the governments of the rich nations to put more effort into improving the pay and conditions of workers in the poor ones.

We also have to educate our children that it is not acceptable to think only of themselves - they must be taught that they will have to do their bit to help people who by sheer bad luck are born into poverty or ignorance.

Because that's what it comes down to - luck. Take a look at me - I've been very lucky. I was born to loving parents who weren't rich but they weren't poor either. I got a decent education at the expense of the state. I have no disabilities and I have white skin. Suppose I'd been born disabled, or a black in one of our inner cities. What sort of life would I have had? With loving,

supportive parents I might have had a chance to do well. But suppose I was the child of a single parent who was too exhausted by life to look after me properly and I went to a school with no resources, where the teachers were demoralised and academic expectation was zero. Would it be so surprising if I went outside the law to get things that I would otherwise have no chance of getting? Would it be so surprising if I resorted to drugs or alcohol to bring relief from the unremitting misery of life? What would people expect me to *do* with my life?

Now imagine that problem times ten. Imagine being born in a poor African or Asian country. What would you have to look forward to in life? Not enough food, no money, no education, no work, or even worse - slavery, nowhere decent to live. Nothing. What sort of life is that?

And now here's the really big question. Should the lucky people be expected to help the unlucky ones? Some of them will be reluctant. If you say to them, 'why don't you want to share your good luck?' they'll say why should they? They'll tell you they worked hard to get their money. Some of them even pay their taxes.

What we have to do is change the minds of people who behave in this way - not the older ones - they're a lost

cause. It's back to education - social education if you like.



'IMAGINE ALL THE PEOPLE SHARING  
ALL THE WORLD'

The Socrates programme says that what we have to do is change our philosophy. We teach gifted and talented children to share the fruits of their good luck. And to those who say we mustn't ignore poverty here while we're putting resources into the Developing World - charity begins at home and all that - well, I agree with you. Poverty does not recognise borders and nor should the people trying to eradicate it. In the words of John Lennon: 'Imagine all the people sharing

all the world' - a better impulse than that illustrated on the backdrop behind me.

It might surprise some of you to hear me say - and I hope I don't lose too many votes saying it - that socialism is not the answer - not in the old-fashioned sense of the word. The idea of 'from each according to his ability, to each according to his needs' was bound to be a failure, because it ignores human nature.

Selfishness is a natural human characteristic. We all want what's best for ourselves and our families. So what we have to say to our children is - look, you've got ability and talent - use those abilities and talents to do well for yourself, to get a good job, make a good living, nice house, nice car and so on. You don't need to feel guilty about earning wealth but while you're doing it, spare a thought for the unlucky ones, born without talent or ability or into poverty.

Again taking my cue from the Socrates programme, we must say to the next generation, your social duty is to give a little time and effort to improve the lot of the unlucky ones. We must tell them to work to ensure that every person who is born into this world is guaranteed freedom from hunger, basic education, health care, work to do, and most important of all, some happiness in their lives and a sense of purpose. It's up to the lucky

ones to make sure the unlucky ones get these basic human rights.

Some entrepreneurs will tell you they're already helping the Developing World by setting up industries there. But many of them are not really helping the local people, they're helping themselves. Ruthless competition, one of the nastier aspects of monetarism, has forced companies to relocate to parts of the world where labour is cheap and yet again it's the unlucky ones - many of them children - who lose out.

We need to see the process work in reverse, by setting global trade rules which prevent exploitation of workers. Competition itself is no bad thing and helps to increase efficiency, but that efficiency must not be at the expense of the weakest people. Rather, there must be basic rights for workers everywhere in the world and efficiency achieved through the way businesses are managed rather than by abuse of the workforce. And by removing the resentment fuelled by poverty and exploitation you'll reduce terrorism too. You cannot make a terrorist out of a contented person.

Again, forget the present day entrepreneurs and company directors. Their education was flawed - they weren't taught their social duty. They were brought up to worship the great god, money. No, the children of today are the ones who need to learn these new

responsibilities. And in turn they will pass the message on to their children and then the world may see a fairer distribution of wealth and power.

My partner, who's better educated than me, has supplied a quote from the poet Wordsworth, who said in eight words what I've been rambling on about these last ten minutes - the child is the father of the man. In other words - bring the children up right and they'll turn into good citizens and good parents. Let us be the first generation of whom our successors can say - they taught their children correctly.

Some of you may be familiar with the Winston Smith character in George Orwell's famous book, 1984. Winston Smith thought that the only hope of changing things for the better lay with the proletariat. I humbly disagree. I think that hope lies with the children, as long as we teach them how to turn the world into a fairer place, with the lucky ones helping the unlucky ones, and everyone acknowledging their social responsibilities and their duty of care to planet Earth.

A young lad who lives near me suggested that we should teach people not to hate each other but to de-hate each other. I like that word - it could catch on. When you take away hate you begin to solve many of the world's problems. When you then start thinking

about the welfare of those less fortunate than yourself you go further along the same road.

I'll now move onto my other area of union concern - industrial relations. There is a link to what I've just been talking about, and that link is welfare, in this case how people are treated at work by those in authority over them. One contentious area which is particularly significant in the public transport industry is the regulation of duty periods.

As some of you know, considerable research is being done by psychologists into how outside factors influence people's performance at work. Indeed, our union is directly involved in such a study taking place at Cambridge University. What is clear already is that although the performance of the human brain is fairly easy to measure, the ability to predict variations in performance is much more difficult. From this it follows that the current rules concerning duty periods are too simplistic.

This is where I'll bring in the recent Aylesbury SPAD incident. For the observers here the acronym SPAD stands for signal passed at danger - an error severely compromising rail transport safety, with potentially calamitous consequences.

The incident did not attract much media attention.

There were no fatalities and only minor injuries. The train was not derailed or damaged in any way. Let me remind you of the main points. An eight car train of two four-car multiple units operating a semi-fast Euston to Birmingham service and running at normal speed on the down main line approached a signal at danger without reduction in speed. The driver realised his error when he saw the red aspect of the signal. He immediately applied emergency braking. The train came to a halt having overrun the signal by 120 metres. Three passengers were injured during the abrupt deceleration.

The aspects of the four preceding signals were green, double yellow, double yellow and yellow. The driver cancelled the aural cab warnings at the last three, as he was entitled to do, but did not reduce speed after passing the single yellow, in contravention of standard procedure.

When questioned after the incident the driver said he thought that the last warning he had cancelled was also a double yellow and he was expecting the next signal to show an aspect other than red. When asked why he did not check the Last Signal Repeater in his cab he said he thought he had done so. He thought he saw a double yellow. Testing of the repeater equipment after the incident confirmed its correct operation.

A significant factor in this incident was that the Track Occupancy Indicator on this train was inoperative. Had it been functioning it would have shown that the block protected by the signal at danger was occupied by another train which was running behind schedule. Currently, despite union pressure to change them, the regulations allow dispatch of trains with inop TOIs as long as the aspect repeaters are serviceable. A few minutes before the incident Area Control had advised the driver by cab phone about the late running train ahead and he had acknowledged the message.

When the train had come to a halt after emergency braking the driver reported his violation to Area Control by cab phone and was given permission to proceed to Aylesbury once the signals were clear. On arrival at Aylesbury the driver was relieved of his duty and suspended from further operations pending investigation.

During the investigation, it was suggested to the driver that, given that his TOI was inop and Area Control had advised him about the late running train ahead, he should have monitored his aspect repeater more closely than usual. The driver replied that he was doing so, or so he thought. He could not explain why he had mistaken the single yellow aspect for a double yellow.

It was noted that the driver's past operational record

was satisfactory. He had no previous SPAD incidents on his record. His sickness rate was about 70% of the average. The driver stated that there were no major worries in his domestic life at the time of the incident.

Since the incident the driver has had a problem with returning to work. Despite counselling, he does not feel confident enough to resume driving. He told the investigating committee that he was worried that if he made the same mistake again there might be more serious consequences. This man is not shirking work - in fact he is doing office duties, which means his take-home pay is quite a bit less than when he was driving. I'm pleased to report that our union is making up most of the difference.

So, why did this driver overrun a signal at danger? Let's look at some possible explanations. Clearly he didn't do it on purpose - he was mortified when he realised what had happened. Was it carelessness? A more likely explanation, but this man's operational history showed a conscientious, professional approach to his duties.

What about other possibilities? Incompetence? Well, again, this driver had a good record. His performance assessments during route checks were always satisfactory or better. How about incapacitation? The evidence says no, the driver was not physically or

mentally ill at the time of the incident and was in possession of all his faculties.

So we are left with a conundrum. Why did an experienced, competent, conscientious driver in good mental and physical health ignore yellow warning signals and overrun a red?

Maybe the clues can be found in another comment in the report. I quote: on the day of the incident the driver's manager had noticed that he seemed 'not quite with it' when he booked on for his turn at 0530 and the manager queried whether the driver was alright. The driver said he was. This duty was his fourth consecutive early start.

As an aside here - the report doesn't pursue this further, but at the investigation the driver confirmed that the manager had asked him if he was feeling okay for duty. So, well done, that manager. There are still a few around in South Mid who show little consideration for the welfare of the workers they are in charge of. We need to get rid of these dinosaurs as soon as possible.

'Not quite with it.' What does that mean? I've got no training in psychology but I think I know what they're talking about. You know the feeling, we've all been there. You find yourself making more mistakes than usual and it seems that your mind is drifting when it

should be concentrating on things and concentration itself is difficult. Sometimes it's after a long duty or when you get up after a sleepless night. Sometimes it's because you're not fully fit and sometimes . . . there's no apparent reason at all. It's just a random human anomaly.

But perhaps in this case there is a reason. Let's revisit the report. As I just said, this duty was the fourth consecutive early start for this driver, although he stated afterwards that he was adequately rested and not suffering from fatigue as far as he was aware.

There are two big problems with fatigue. One is legal and one is physiological. If you look in the Train Operators' Procedures Manual you will find the following:

*A person shall not undertake driving duty if they know or suspect that they may suffer the effects of fatigue during the course of that duty.*

This is one of the most controversial rules in the book. You will have heard of drivers worried about repercussions if they report unfit for duty through fatigue. Some drivers take to reporting sick when they are just over-tired. Needless to say, most of the cases are genuine and only a tiny minority are malingerers. But if there is a climate of fear, the possibility arises

that trains are being driven by men and women whose judgement is impaired by fatigue because they're worried about sickness reports on their records.

As I said before, there are signs that the climate is improving in this area. But there is still the remaining problem - how can a driver blame fatigue if he or she is involved in an incident? The legal bods will say - you've broken the law by driving when fatigued. So what will drivers say? Let me remind you again what the driver in this SPAD said: He was not suffering from fatigue as far as he was aware. What else could he say without being accused of breaking the rules?

As I mentioned previously, there is another consequence of fatigue and that is that it impairs judgement. This means that a person suffering from fatigue might not even realise it. They may not realise that they are not in a fit state to do driving duties. Having eliminated other possible causes, my guess, although there is no proof, is that the driver in this SPAD incident was suffering from some form of fatigue, perhaps caused by having to report for work before 6 o'clock on four consecutive mornings.

I read somewhere recently that machines are now more reliable than humans. If this is true then the weak link in transport safety is the human being. Machines can be improved almost to the point of infallibility, but

humans have taken millions of years to evolve into their current form and they still have minds and bodies naturally suited to pre-industrial life. The only safe way of allowing humans to operate safety critical machinery is to develop operating strategies that minimise the likelihood of human error and also minimise its impact when it occurs, as occur it must. It's important too to remove the blame culture still prevalent in some industries and some countries, which deters people from admitting to errors they've made and so prevents others from learning how to avoid these errors.

This means that the whole area of human performance and variation in performance needs more research so that we can replace the current rules with something better, especially in the areas of maximum permitted duty periods, minimum rest periods and fatigue-inducing roster patterns. Which is where our research project at Cambridge fits in. Again, a bit of good news - the practice of rostering four consecutive earlies has now been discontinued. It took a fair amount of pressure from the union to achieve it but finally the directors agreed, maybe because they didn't want more SPADs - or worse.

Perhaps someone reminded them that the two worst disasters in the history of this country's railways both occurred early in the morning. In the first, during the First World War, incorrect procedures were carried out

by signalmen during a shift change at a signal box, partly through negligence, it has to be said. The result was a three train pile-up, with smashed wooden coaches catching fire and burning for many hours. In the second, a few years after the Second World War, the crew of an overnight express ran through a red signal and hit the back of a stationary commuter train boarding passengers at a station. Again a train running on the adjacent track hit the wreckage of the first two. In this case fog was a contributory factor. The combined death toll in these accidents was over 300. We've made technical progress in so far as carriages these days are built more robustly and operations in fog are much safer. But the weak link - the human being - is still not error proof.

Some people by nature are better than others at working efficiently and safely during unsocial hours. So a new union initiative which we'll shortly be presenting to the company is introduction of preference rostering so that drivers can state their preferred booking on times. Incentives to work during unsocial hours should not be financial - for obvious reasons. Rather, turns could be significantly shortened for unsocial booking on times, more so than the present rules. Another option is two-crew operation for these turns, to allow rest periods during the turn. If the company balk at the resulting increase in payroll cost, we'll point out that these strategies will help to improve safety by keeping

fatigue at bay. Watch this space!

And here's a related factor which needs attention. Besides our working conditions, we're naturally concerned with our welfare and our quality of life outside of work, which sadly are not high on the list of priorities for some of our directors and managers. Fatiguing operating practices are likely to have long term detrimental effects on our health and longevity. As we frequently remind those we work for - it's not just about money!

In summary you can see that the main theme of this speech is how people treat other people. My view is that I would like to see Britain following a more European code of social behaviour. By this I mean the countries disparaged by some right-wing Americans as 'old Europe'. In these countries, the harshness of capitalism is tempered by the citizens' obligation of social provision for the less fortunate. It's the 'make money for yourself but don't forget about others' idea I mentioned earlier, and it's far superior to the American 'make money for yourself and don't bother too much about anyone else' where hire-and-fire is governed purely by economics without regard for workers' welfare.

That's an oversimplification, of course. I don't want to be accused of anti-Americanism here. I like America

and I like the Americans I've met. Many Americans show concern for others, and there is a tradition of philanthropy in the US in which those who have amassed fortunes redistribute some of it in charitable foundations and the like. But there is a difference in basic philosophy which was clearly exposed in the devastation wreaked on New Orleans by hurricane Katrina, which the fortunates escaped and the unfortunates did not. At the risk of oversimplification again, the American way could be summarised as 'money before people' and the European way 'people before money'.

In Britain over the last few decades we have drifted towards the American model. For many people - the clever, talented ones - that means greater material wealth. But for many others it means the opposite. The much vaunted 'freedom of opportunity' is about as achievable as a flight to Mars for deprived, undereducated families living in squalor in sink estates. I would be saddened to see the governments of enlightened European countries following Britain along this uncaring path in their obsession with economic competitiveness. You can predict the response of a sink estate inhabitant when they were informed that the country in which they lived was the world's fifth largest economy - 'What do they do with the money?'

It's a good question - what do we do with the money? Some people will tell you that we waste money which the country can't afford on asylum seekers and illegal immigrants. You read it in some of the more rabidly xenophobic newspapers. You know the sort of thing - 'the reason the NHS is struggling is because the money that would pay for improvements is being paid out instead in benefits to people too lazy to work or asylum seekers and illegal immigrants.' It's a distortion of the truth of course and it deflects attention away from mis-spending of tax revenue by incompetent government. But wastage of taxpayers' money has been a complaint of the populace ever since taxes were first raised, often with some justification. Government has a duty to make sure that those claiming benefits are genuinely entitled to do so. Even so, I would contend that a welfare state that protects the unfortunates, even though it is also sometimes abused by benefit fraudsters, is better than an inadequate welfare state.

I was recently involved in a radio programme comparing industrial relations in Britain with those in other countries. I mentioned the anomaly that although Britons work longer hours than their continental cousins their productivity was often lower, partly because of inadequate investment in new technology and processes but partly because the quality of work will suffer if people are forced to carry on working when they're tired.

I also pointed out that Europeans tend to run their railways as public services rather than commercial businesses, with subsidised fares to encourage their use instead of cars. I have to tell you that at this point in the programme I was interrupted by a member of the audience, who shouted: 'Why don't you go and live abroad then if you think it's so much better?' The rest of the audience responded with a mixture of applause and jeers - it was difficult to say which was greater. When the hubbub died down I said that I was born in England and I loved England, but I wish England could be a bit more civilised. I think the applause for that comment just about beat the jeers.

Well, I can see some of you yawning, which tells me it's time to shut up before you start jeering me yourselves. So my closing words are: please give me your vote so I can continue my work in these fields.

Thank you.

**THE END**

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