

## What should we do with Jim? On the use of technology to prevent criminal behavior

Gabriel de Marco, Tom Douglas

[Accepted for publication in *Future Morality*, ed. David Edmonds, OUP]

### The case of Jim

Jim was arrested arriving at the house of an unattended minor, having brought with him some alcoholic drinks, condoms, and an overnight bag. Records of online conversations Jim was having with the minor give the court strong evidence that the purpose of this meet-up was to engage in sexual relations with the minor. In the course of searching his home computer, investigators also found child pornography. Jim was charged with intent to sexually abuse a child and possession of child pornography. He was given due process, and convicted, by a jury of his peers, on both counts. This is not the first time that Jim has been convicted of a sexual offence. He had been found guilty of possession of child pornography in the past, and served time for it.

What should we do with Jim? The obvious answer is that we should send him to prison. In such cases, most people think that some form of imprisonment is justified, though there would be disagreement on why it is justified: to deprive him of access to potential victims, to deter others from committing similar crimes, or just to ensure that he experiences the suffering that he deserves.

But at some point, Jim will need to be released. Most accept that there is an upper limit on how long a person can be imprisoned. At some point, the punishment will become disproportionate -- too severe for the crime committed. Yet we may be concerned with the possibility of Jim's reoffending once he is released. A stint in prison can do much to change a person, but it will not always be successful at preventing reoffending -- indeed, it may even have the opposite effect;<sup>1</sup> and remember that Jim has been here before. We might, then, think that the criminal justice system should also do something to reform or rehabilitate him.<sup>2</sup>

Suppose that Jim feels remorseful, and he felt remorse after the first time as well. Getting caught the second time has made it very clear to him that, for him, remorse isn't enough. If he is going to change, he needs more than remorse; he needs help. Should we offer him help? It is very plausible that the answer is yes. Jim did something bad, and he wants to change, but doesn't know how. If we have means available to us to help him with this, it would seem difficult to justify withholding them from him. Even if one is not concerned with helping Jim to be the person he wants to be, one is likely still going to be concerned with whether he commits further crimes, if and when he is released.

---

<sup>1</sup> See Lynne Vieiratis, Tomislav Kovandzic and Thomas Marvell, 'The Criminogenic Effects of Imprisonment: Evidence from State Panel Data, 1974-2002', in *Criminology and Public Policy* 6/3 (2007), 589-622.

<sup>2</sup> Other possible measures would include, for instance, limiting Jim's movement once he is released such that he cannot come within a certain range of a school, or requiring that he report to his neighbors as a sexual offender.

So how do we go about helping Jim change? There are a variety of things we might try to do. Suppose we were to offer Jim a device that could detect when he is about to get some of his problematic urges and release a drug meant to neutralize them. Some would find these sorts of methods strange, and perhaps intuitively problematic. Using technology to solve social problems, like crime, tends to give us pause. But in the following, we will argue that using technology to prevent crime isn't necessarily problematic; insofar as we are comfortable using more conventional means for rehabilitating Jim, we should be comfortable with using some technological methods as well.

### **What we might do with Jim**

So what might we do with Jim? Perhaps we could offer him an educational program, involving a series of courses that Jim can participate in while incarcerated. Suppose that these courses are designed to help him think through the consequences of his actions, to reflect on the type of person he wants to be, and to improve his thinking skills more generally. Suppose that during his first term in prison, Jim took these courses. They did help him a bit, but obviously not enough to prevent him from reoffending once released. When asked why the educational programs didn't help much, Jim says he doesn't know, but he has some ideas. He often found it difficult to focus during the courses, and because of this, he may not have taken the information on board, or retained it, as much as he may have liked.

Now suppose that we have an inexpensive pharmaceutical, say Adderall, which helps to solve this problem by helping him to concentrate on the courses. Were we to offer the drug to Jim to take in conjunction with the educational program, he might do better this time around. Should we offer it to him? Some might think that he shouldn't get it without a prescription from a doctor, a doctor who has assessed him as having a clinical condition for which Adderall is an approved treatment—say, Attention Deficit Hyperactivity Disorder (ADHD). Suppose he doesn't have one of these conditions, but we still think that the Adderall could help. Why not offer it to him, if it could help him get more from the courses?

When people object to the use of Adderall by those who do not have a prescription or a diagnosed condition for which it is a licensed treatment, they are normally thinking about cases very different from that of Jim. For instance, one concern is that the use of Adderall without a prescription is illegal. But this would clearly not be a problem here, since we are discussing what the state should do, and the state could simply make it legal for Jim to take Adderall. Some argue that the use of drugs like Adderall to improve, say, a college student's performance, is problematic because one of the goals of the educational system is to evaluate students on their merits, and the use of so-called 'smart drugs' interferes with this. This might make it difficult for future potential employers to make reliable assessments of job candidates. Also, it may simply be unfair that some students get an advantage over others not through hard work or ability, but through using a drug. And we might worry that the achievements students make while using Adderall are not as worthy as those of others who achieved the same without the use of enhancers.<sup>3</sup>

---

<sup>3</sup> For an overview of this debate, see Alberto Giubilini and Sagar Sanyal, 'The Ethics of Human Enhancement', *Philosophy Compass* 10/4 (2015), 233-43.

We don't wish to get into that debate here; however, it is important to note that, in the context of rehabilitating individuals, merit does not have the significance that it does in the general education system. Here, we're not primarily concerned with Jim getting the evaluation that he merits, with whether he is getting an unfair advantage over others in the education programme, with whether his achievement, if he manages to refrain from further offending, is worthy, nor with whether his performance on the programme will be a good marker for future employers. Our main goals are to prevent Jim from reoffending and, perhaps, to help him become a better person. If giving him Adderall can help with this, then it's not clear why we shouldn't offer it; the typical arguments against the use of Adderall without a medical need won't apply here.

Would this be enough - an educational program and a smart drug like Adderall? Sure, Jim might get better at recognizing the consequences of his actions, including the long-term effects his behavior might have on his victims, for instance. But another big problem is his motivational states; his urges and desires are a significant driver of his behavior, and seem to be a big part of the problem. Even if he knows what the consequences of his actions are, he may just not care enough about those consequences to overcome some of his urges. Or perhaps he cares enough most of the time, but sometimes has lapses. Maybe, then, we could offer him help in changing or better controlling his motivational states, such as his paedophilic urges and his concern for the consequences of his actions.

Suppose then that the educational program, intended to improve his general thinking skills, is supplemented with therapy, intended to help him with his motivations, including his paedophilic urges. Some forms of therapy aim to improve patients' control over their thoughts and feelings; for instance, by helping patients to recognize and block a thought process before it causes problems. Perhaps using these tools, Jim could learn to recognize the urges and desires that may often lead him to unwanted behavior, and nip them in the bud. This would give Jim more control over his own mind by helping him to prevent situations where the urges continue to strengthen and dominate his thinking.

Consider, for example, one self-control strategy that we sometimes use when we recognize that our thoughts, feelings, or urges may be getting away from us, or when we feel overwhelmed: we close our eyes, take a few deep breaths, and perhaps count to ten. Doing so can help us to calm down, refocus on the bigger picture, or simply interrupt a vicious circle. There is presumably a complicated story as to how this works, and here we offer some speculations. Studies suggest that there is a limit to the amount of attention we can sustain at any given time; forcing ourselves to perform a task that requires a large amount of this attention means that there is much less attention to devote to other things. By taking deep breaths, we may be taking attention away from the strengthening desire, and the process that leads to its strengthening. Perhaps, instead, the change in oxygen levels is doing some significant work. Or, such a strategy might enable us to take a third-person perspective on some of our mental states, allowing us to have more control over them, in the moment. The complete story is not all that relevant for our purposes, and nor is it important whether Jim is aware of the full story. Many of our strategies for resisting desires are of this sort. They do not involve a careful reasoning process; rather, they involve our triggering some process, the inner workings of which we are unaware, that gets us the result we want.

So suppose we offer Jim a form of therapy that includes teaching and encouraging him to employ self-control strategies like the deep-breaths technique. This might give Jim better chances of reforming. But there's no guarantee it will work. There are many people like Jim out there, many of them receive therapy, and many of them still reoffend after being released from prison. We will just consider two reasons why such strategies might fail.

One reason is that people like Jim might not recognize the urge until it is too late for the strategy to have a significant effect, or may not recognize the urge at all. Now suppose that scientists' understanding of how the brain works has continued to progress to the point that they can monitor the brain and reliably detect the onset of such urges. Making use of this technology, they have created a device that Jim can wear, a device which warns him that the urges are about to arise. While Jim is wearing this device, it can detect precursors of his urges, and give him a warning; say, by making his watch vibrate. Using this device, Jim can avoid the risk of failing to recognize or react to the urge in time, since the device gives him a clear signal that he is probably about to get one.

Offering this device to Jim, we think, would be permissible. We can suppose that the device does not share information with anyone, and that the vibration on the watch is noticeable only by Jim. This sort of device would simply be an aid in improving the efficacy of the strategies he learns through the therapy; it would make Jim more effective at controlling his own urges.

The second reason why strategies like the deep breaths technique might fail is that, *even if* Jim recognizes the urge in time, and implements the strategy, the strategy may not be effective. Perhaps the urge this time around is too strong for the technique to significantly alleviate it. Or perhaps parts of the environment that triggered the onset of the urge persist, and maybe get more intense, thereby overwhelming the strategy. So suppose that there's more to the device; suppose that not only does it give Jim a signal when it detects a precursor of the urge, it also has a button that Jim can press. When Jim presses this button, the device releases a drug that is reliably effective at neutralizing these urges.<sup>4</sup> Thus, when his watch vibrates, Jim can choose to press the button and give himself a small injection of the drug. Alternatively, Jim can set the device to 'automatic' mode. In this mode, it releases the drug whenever it detects precursors to the urges, with no input required from Jim. We can further suppose that the drug is safe, and does not have significant side-effects.

Offering this amplified device to Jim, we think, would be permissible as well. Obviously, there is an important difference between these devices; the first device lets Jim know when the urge is likely to arise, allowing him to implement his preferred technique. The second device lets him use a drug in combination with, or in place of, this technique. But, we will argue, it's doubtful that this difference is in itself morally significant.

Let's begin by focusing on the similarities between the two devices. Both devices only 'kick in' when the problematic urge is about to arise. The goal of both devices is to prevent the urge from getting stronger,

---

<sup>4</sup> If it helps, one can think of this device as using a similar mechanism as an insulin pump, intended for use by diabetics.

or leading to problematic behavior. You might think that there's an important difference in the way in which the devices achieve their goals. The drug, you might think, is problematic because it doesn't work by getting Jim to appreciate his reasons not to engage in inappropriate or illegal sexual behavior. However, it is not clear that self-control strategies like the deep-breaths technique do so either; we might just use such a strategy because of its results.

You might instead object to the drug-device in ways that some object to so-called 'motivation enhancers'. Motivational enhancers are intended to change a person's motivations for the better; for instance, by helping a person to achieve her goals, including the goal of being a better person. Many of the objections to them look quite a bit like the arguments against the use of smart drugs that we considered above. Consider motivational enhancements that increased students' motivation to study, or athletes' motivation to further develop their skills. One might worry that the use of such enhancements would devalue the achievements of these students or athletes, or that their use would be unfair to other students or athletes. But when we're considering rehabilitating Jim, he isn't in a competition with anyone, and we're not concerned with whether he deserves some accolade, or whether his achievements have merit. In the context of prisoner rehabilitation, it's reform that we want, so these arguments don't hold sway.

Alternatively, you might be concerned that Jim could come to rely on the device, and thus become worse at controlling his urges on his own. We have two points to make in response. First, in terms of avoiding recidivism, this would not be a problem if Jim has the option of using the device indefinitely. Relying on the device would only be problematic if the device might be taken away. Second, we wouldn't think this was a particularly powerful objection if Jim had an alternative strategy. Suppose, for instance, that instead of using a device, Jim develops a friendship, or a relationship with a counselor or priest, such that he can count on this person to help talk him down whenever his urges start to become strong. Few would think that this is a problematic way of preventing recidivism. And few would think that he should avoid forming the relationship because he might come to rely on the other person too much.

Another concern you might have is that the drug-device, when set on automatic, somehow leaves Jim's agency out of the process; and this is somehow a problem. When the device is on the automatic setting, Jim doesn't do anything; it is just the device detecting precursors of the urges and neutralizing them with the drug. We concede that, at the time at which the device neutralizes the urges, Jim is passive with regard to the process. However, we do not think that this means that Jim, as an agent, is no longer involved. In order for the device to be on the automatic setting, he needs to have changed the setting earlier. Compare this to some other strategies agents might use. Suppose that Jack, in order to prevent himself from driving drunk later, gives his keys to his friend, who agrees not to give Jack the keys if he is drunk. Or suppose that Jill is often late to lunch with her friends because she is sometimes distracted by the new devices at the electronic store on her way to the restaurant. She might decide, as she is leaving her house, to take a slightly different route which avoids the electronics store, thereby avoiding the temptation. Jack and Jill both do things to ensure that they don't have, or don't act on, certain urges or motivations later on, when they know that it will be harder to resist them. Jim's setting the device on automatic, we suggest, is similar.

It is a case where he acts now to avoid certain actions later. Thus, we reject the view that the device, when set to automatic, somehow excludes Jim's agency in any important way.

## Conclusion

Starting with a type of education programme that we think few would find problematic, we have progressed step-by-step through a range of interventions that might be offered to Jim. In each case, we have tried to show that it is hard to see why the intervention should not be offered, at least, if we accept the previously mentioned interventions. This pushes us towards a view according to which, if we accept the education programme, then we ought to accept all of the other interventions that we have discussed as well (as and when they become safe and technologically feasible). This would mean accepting a greatly expanded role for technology in our criminal justice systems, compared to what we see at present.<sup>5</sup>

Some might wish to resist this conclusion. How might they do so? One strategy would be to appeal solely to intuition. For example, someone could hold that, intuitively, the drug-based intervention with which we ended our discussion is so much more problematic than the educational intervention with which we began that we simply *must* accept that there is an ethical difference between them, even if we cannot say what the rational basis for this difference is. We find this strategy unappealing. After all, many people previously had the intuitions that slavery was unproblematic and some people now have the intuitions that mix-race couples are objectionable or that women ought not to be allowed to work outside the home. Few of us would be willing to take these intuitions, without a rational basis, as indicative of what is actually morally acceptable or unacceptable--most of us would hold that, since they cannot be given any rational basis, these intuitions are mere prejudices. Perhaps our intuitions against the greater use of technology in criminal justice are mere prejudices too.

A second strategy would be to identify some morally significant difference between some of the interventions that we have proposed and others--some difference that we have overlooked. This strategy is more promising. Still, we find it hard to see what the neglected difference might be. So let us end by posing the reader with a challenge: either offer a good argument for drawing a line somewhere along the spectrum of interventions that we have discussed, or accept that there is, potentially at least, an expansive role for technology in crime prevention.

## Acknowledgments:

We would like to thank the Wellcome Trust [Wellcome Investigator Award 100705/Z/12/Z] and The European Research Council [ERC Consolidator Award 819757 (ProtMind)] for their financial support.

---

<sup>5</sup> We have not, in this chapter, considered the possibility that technological interventions might be used to help criminals' rehabilitation *without their consent*. For a discussion of this possibility, see Jonathan Pugh and Thomas Douglas, 'Neuro-Interventions as Criminal Rehabilitation: An Ethical Review' in J. D. Jacobs and J. Jackson (eds.) *The Routledge Handbook of Criminal Justice Ethics* (Routledge, 2017).

