Bioethics Outlook

Plunkett Centre for Ethics

A joint centre of Australian Catholic University and St Vincent's Health Australia (Sydney)

Volume 26, No 3

September, 2015

The 'truly seminal' work of Edmund Pellegrino: a synthesis by Daniel Sulmasy

Daniel Sulmasy is right. An exposition of the ideas of Edmund Pellegrino is the most fitting tribute one could offer to that great American doctor and scholar. Such an exposition is what Sulmasy offers in his contribution to a mini-symposium on Pellegrino's life and work which was published last year in the *Kennedy Institute of Ethics Journal*. In what follows, I sketch the main themes in Sulmasy's exposition. They reveal an inspiring, coherent and compelling account of the ethics of medical - and more generally healthcare – practice.

Many Australians would know Edmund Pellegrino as a result of attending an Intensive Bioethics Course at Georgetown University. Pellegrino (1920 - 2013) was not only an outstanding doctor but also a leader in the field of medicine and the humanities, specifically, the teaching of humanities in medical school, which he helped pioneer. He was the Chairman of the President's Council on Bioethics, under the 43rd U.S. President, George W. Bush, and was the founder of the Edmund D. Pellegrino Center for Clinical Bioethics (renamed in his honour in 2013) at Georgetown University. He was the recipient of more than 50 honorary degrees, and the author of 11 books. His research interests included the history of medicine, the philosophy of medicine, professional ethics, the patient-physician relationship and biomedical ethics in a culturally pluralistic society.

In this issue:

Bernadette Tobin sets out the main features of Daniel Sulmasy's account of the ideas of Edmund Pellegrino. Sulmasy's account is to be found in the *Kennedy Institute of Ethics Journal*, Vol 24, No 2, June 2014.

Steve Matthews adds to his recent discussion of addiction as habit by chipping away further at the sharp discussion between a medical and a moral model of addiction.

Foundational Idea

According to Pellegrino, the ethics of inseparable medicine is from philosophy of medicine. You must know 'what medicine is' before you can reasonably think about how doctors should act or make normative prescriptions about medical care. That is the foundational idea. An appreciation of medicine itself is the necessary prerequisite understanding of what doctors should do. The core of medicine, that philosophically rich, objective and universal across time and cultures core, is revealed in the phenomenology of two things: in the phenomenology of illness itself and in the phenomenology of the patient-doctor relationship.

Three things are at the core of medicine: the fact of illness, the act of profession and the act of profession. By the 'fact of illness' Pellegrino meant the experience of illness as a universal human reality. As Sulmasy says, his reference point was always 'the patient on the gurney'. He emphasised vulnerability of the sick, the restrictions that illness and injury place on the autonomy of patients, the way illness renders the sick person dependent on others for help and the way illness attacks very selfhood of the sick person. Thus, illness and injury result in 'wounded humanity'. By the 'act of profession', he meant that medicine, nursing, etc, are socially established institutions by which certain individuals receive special training and swear to use that training for the service of the patient, the one on the gurney. By the 'act of medicine', he meant a 'shared intentionality' between the sick person and the doctor to improve the patient's biomedical state. Because of this

mutual intentionality, medicine is first and foremost a relationship. The vulnerability of the patient demands trust on part of the patient and trustworthiness on part of the doctor. The patient must trust that the doctor will be true to the act of profession, the oath, in the face of the fact of the illness patient's and its attendant vulnerability. The public profession of trustworthiness therefore includes willingness to set aside self-interest for the good of the patient.

And so, the art of medicine culminates in three questions: What is wrong? What can be done? What ought to be done? That last is the moral question that permeates all of medical practice from prescribing drugs for high blood pressure to turning off ventilators. Medicine is thus an inherently moral practice. The goal of the act of medicine is the good of the patient. So, as every applicant to a medical school attests at interview, medicine is first and foremost about helping people, about 'beneficence'.

The patient's good: a complex notion

But the patient's good is a complex notion which becomes known in that 'shared intentionality' of patient-doctor the relationship. Pellegrino proposed fourfold notion of patient's good, which consisted of a hierarchy of successively inclusive goods: (1) The biomedical good of the patient, that is the restoration of physiological harmony or structural integrity of the individual as human organism. (2) The good of the patient's choice. Each patient is unique and his or her experience of illness and health will be individual and personal. Patients are free moral agents who make trade offs between the many goods from which they can choose in living their lives, and can choose

among various medical options in light of their own conception of the good. (3) The good of the patient as a person. Patients must be respected not only for their free choices but also for the value they have as dignified human beings. (4) The good of the patient's notion of the highest good, whether that is the utilitarian's goal of the maximisation of the net ratio of good to bad consequences over a society or the religious person's notion of transcendent good. Whatever it is, it needs to be incorporated in medical decisions if they are to promote the patient's overall good.

According to Pellegrino, these 'levels' of good are hierarchical: the biomedical good is on the lowest rung, always open to being trumped by a higher level good. A useful way of appreciating this is to note that, on Pellegrino's view, respect for a refusal of a blood transfusion by a Jehovah's Witness should be understood not as the triumph of autonomy over beneficence (as the 'four principles' approach would imply) but rather as an act of beneficence: what Sulmasy calls 'the normatively correct flows decision that from a fuller understanding of what it means to be beneficent'.1

Internal morality of medicine

And so did Pellegrino defend the idea that medicine has its own internal morality. Its morality does not come 'from outside' or 'from the rest of one's life' but from the nature of the activity of medicine itself: seeking the good of the sick person. This idea, led Pellegrino to champion the application of virtue ethics to medicine. A doctor can hardly seek the good of the patient unless he or she possesses those

qualities of character we know as virtues: fidelity to trust, practical wisdom, compassion, justice, fortitude, temperance, integrity, self-effacement. On this view, these qualities are necessary if an individual doctor is to practice good medicine.

In summary, medicine is to be understood as 'right reasoning about action'. Its central question is: 'What is the right and good healing act for this particular patient in these circumstances? Indeed, 'Pellegrino believed that there were correct and incorrect answers to that question'. Finding the correct answer is the shared intention of the doctor and patient. Realising the correct answer in action demands virtue on the part of the doctor.

Critiques

Sulmasy finishes with a sketch of some critiques of Pellegrino's work: that his views were antiquated, scholastic, metaphysically troubling, 'nostalgic', neopaternalistic, chauvinistically medical, too focussed on doctor-patient relationship, etc. Pellegrino had answers to these criticisms, but would insist that 'none of these other views, for all their claims to philosophical sophistication, would make as much sense as his views did to the sick patient lying on the gurney'.

I warmly recommend this overview of Pellegrino's work. Sulmasy says that it was just these ideas which brought him into medical ethics. Sulmasy himself has done us a great service in bringing his writings together in such a constructive manner.

¹ All references are to the article by Sulmasy.

Addiction, narrative and identity

Steve Matthews

According to the so-called 'moral' model of addiction, those bad acts associated with substance addiction – such as stealing to fund one's habit – ought to be dealt with by the justice system.¹ Contrariwise, according to a strong version of the so-called 'medical' model of addiction, addicted persons are ill, and ought to be treated in a medical facility. These two views, then, cannot both be true. Admittedly, this brief description is a caricature of the division between the models, but it nevertheless divides up the territory at a convenient place. What strikes anyone who has looked at the large variation within the addiction population is that we apply these models in this gross and general way at our peril. This article is an attempt to chip away further at the walls of these models to show that this level of generality is problematic, particularly in the light of our institutional responses to those with addiction problems. It will do so by focusing on two aspects: the variation in severity that addiction brings, and the narrative dimensions of addiction as it impacts the increasingly addicted self.

Different models of addiction are attempting to come to grips with the nature of that condition. What is it, then, about the condition of a person (including both her neurobiology and social situation), that leads to her becoming addicted when others do not become addicted? If the features making the difference between her becoming addicted and not, are not plausibly under her control, can we then deny that addiction is, as one recent account has it, a 'disorder of choice'?² On the other hand, if these features can be brought under the control of the person who ultimately comes to be addicted, can we not then reasonably question the position in which addiction is conceived as a medical condition? After all, what would we say in relation to the disease status of influenza if a person's decision to stop being sick with it in fact led to the cessation of that condition?

Now although addiction is just one *kind* of thing – namely a pattern of (apparently) compulsive consumption leading to negative consequences – its manifestations are of course various in both severity and style, depending on drug choices and socio-economic circumstances. A poor and anxious person may become addicted to cheap alcohol; a rich person may develop a secret heroin habit. The former presents to the social world as a stereotypical addict, and the latter appears to function normally. The outward signs mislead because the "down and out" person, let us imagine, is only lightly addicted measured neurobiologically relative to the rich heroin-dependent individual.

The models of addiction will miss the nuance associated with these internal and external combinations, and consequently will misplace these individuals within categories that constrain our understanding, especially when it comes to treatment approaches.

As things stand, the current public debate in Australia between those who adhere to the medical (or disease) model and those who adhere to the moral (or voluntary choice) model appears to be at a stalemate.³ What is needed is understanding and appreciation that addiction is a condition striking people who are at different biological and social starting gate positions, and the consequences this generates for moral questions concerning treatment.

There are still many community members who hold addicts responsible for their situation, and culpable for their addictive actions. The moralised position views the addict, not as a victim, or as someone with a disease, but as someone who wilfully engages in hedonistic, devil-maybehaviour. By contrast care medicalised position views the addict much more sympathetically as someone whose vulnerability led them to a life in which the compulsion to consume brought with it many negative consequences. If one is undecided about these positions it is important not to import any untested assumptions that might favour one over the other. To take an example: are addicted persons (qua addicted) afflicted by a condition the causes of which are outside their control? The addicted person, at the very least, is

not functioning normally in the same way as we might claim the person with an Obsessive Compulsive Disorder is not functioning normally. But does this commit us to the claim of pathology? It all depends on how 'in the same way as' is taken in the comparison to known examples of pathological conditions. For example, the line between harmless habit dysfunctional compulsion and is notoriously difficult to draw in real world cases. I am in the habit of cleaning my teeth three times a day, but I'm not planning on seeing a psychiatrist. If it were thirty times a day I would. At what point might it become pathological? The line seems to be vague. But the main point is that in seeking this understanding (of the nature of addiction), one cannot presuppose that addiction is pathological (and so, undermining of ordinary agency) before one has formulated a definition, because the main theoretical rivals clash on just this point.

According to the moral model addiction, addicts have opted for a lifestyle in which they make bad choices, and they are culpable in relation to the actions that figure within the ritualised sequences to secure and take their preferred substance. According to the medical model, by contrast, the neurobiology that underpins choicemaking has become diseased and so action repertoires to secure and take drugs are compelled in ways akin to those with disorders of control, such kleptomaniacs or those with eating disorders. Culpability here is reduced,

perhaps even to zero, because the relevant capacities for control have failed.

In the literature on addiction these two positions are distinguished as *models* because they divide the theoretical territory at a quite general level. So, those who adhere to, say, the medical model may, and do, vary greatly with regard to the specific details of addiction. What binds those within the medical model is an acceptance of the idea that addicted persons have an evaluable psychiatric usually because repeated condition, administration of drugs has wrought neurobiological changes that grossly compromise the addicted person's capacity for control. Their pathological condition makes them an inappropriate subject for the attribution of blame. They need treatment in a hospital, not punishment in jail.

What binds those within the moral model is a belief that those who repeatedly take drugs are acting voluntarily. A hard-edged version of the model views the addict as someone who seeks out a life of easy pleasure, facilitated by the intense hedonic effects of alcohol, cocaine, speed, heroin, and so on. They have the capacity to control what they do, a capacity to give up this lifestyle, but they choose not to. Instead, they spend most of their time seeking and securing drugs, often committing crimes in the process; they neglect their role responsibilities and fail to contribute to a society with which they have formed a parasitic relationship in order to continue their life of drug-taking. Even those who are strongly hooked on the most addictive of drugs - opiates,

crack cocaine, or alcohol – have the capacity to reform. But since they do not, they are blameworthy. Their actions are bad, and they should be dealt with within the justice system, not a hospital.

This hard-edged version of the moral model is not shared by all, and there are softer versions which view those who are addicted with more understanding. On softer accounts it is possible to conceive of the addictive lifestyle as constituting a condition of duress which excuses one's bad behaviour, at least to some extent.4 An addicted person convicted for stealing to support his habit may be regarded as responsible for the theft, but since the stressful conditions of his addiction contributed to this action, they ought to be acknowledged in sentencing. This position at least recognises that an addicted person did not deliberately become an addict, but rather fell into the lifestyle in a series of smaller steps.

The medical and moral models are meant to assess the nature of addiction. But the current cultural conditions, which are highly judgemental of those who take illicit substances, have the potential to wrongly influence an evaluation of these models. It is one thing to claim that an addict has lost control, or not, and to form an opinion about their actions as related to the issue of control; it is another to believe that smoking crack cocaine, drinking alcohol, and so on, is in itself, a morally bad thing to do. (One suspects that this belief is implicated in the hardedged version of the moral model described above.) However, in considering the moral status of addictive actions I

think we should ignore the question of the moral status of drug taking in and of itself. The main reason for this is that, even if it is true that taking drugs is intrinsically morally bad, this view cannot properly inform our present inquiry, which is about morally evaluating addictive actions, whatever they may be, and nothing else.⁵ Addictive actions are actions that cannot be isolated from the pattern or sequence of behaviour related to the condition of addiction, whatever it turns out to be. Indeed, our present inquiry would be undermined by the idea that the mere act of taking a drug is, on a single occasion, wrong (or morally neutral or, for that matter, positively good!), because that thought would contaminate our efforts to evaluate such an action as part of a pattern. Evaluating a chosen act is one thing. Evaluating a pattern of addictive behaviour is a different thing.

These days it is hard to find writers in the addiction literature who hold to a pure form of either the medical or moral model, and this is as it should be if one regards the models as useful starting points only, anchor points which enable us to frame questions about addiction from within a set of assumptions that roughly identifies some normative stance we have presupposed. Having said that, the fact remains that theoreticians do indeed hold to versions of these models and in so far as they do are thereby divided starkly in this highly polarised way. What explains this? I make two suggestions. First, the set of persons we regard as falling within the category of addicted persons is not homogenous. There appear to be at least two sub-categories: a highly vulnerable group who are the hardest hit by addictions, and another much larger group whose dependence on a substance oscillates, leaving them periods of control. This is a distinction of degree, not kind, a bit like the distinction between different grades of ligament sprain. In a grade 1 sprain damage to collagen fibres might some pain and local produce inflammation; a Grade 2 sprain creates some looseness, instability and structural damage; in a Grade 3 sprain the ligament tears completely apart and surgery is required. The degrees of damage are thus mapped to the right clinical responses.

Something similar ought to apply in the addiction case. It appears that the hard core group in addiction forms a minority for whom the usual incentives of price sensitivity or life circumstances have little effect on their addictive behaviours. Recent epidemiological work on addiction apparently shows that a majority of those deemed addicts are able to control their consumption in a variety of ways.⁶ For example, they may reduce or stop their consumption in order to attenuate their tolerance so that later intoxication is enhanced. Or they may control it during periods of important employment, or during pregnancy. Most, nearly all, within this wider group, finally give up their addiction around the age of 30. Those at the high end of addiction, by stark contrast, struggle to put in place even these kinds of control measures; and many continue with their addictions into their 50s and 60s. That is significant. Why is this group so vulnerable?

If the distinction between hard core addicts and the less severe cases is right, then there is a sense in which both models discussed above apply equally well, on the further assumption that we are happy to admit that the term 'addiction' is an inherently elastic one. This seems correct – the hard core cases do not appear different in kind from the rest. Addiction treatment professionals ought to have the discretion to judge severity and act accordingly. Yet this flexibility is compatible with a recognition that the hardest hit by addiction incur more damage (physical and psychological), and have less capacity and control, over a longer period of time, to bring themselves back to where they need to be. Hackneyed metaphor as it is, nevertheless addiction is like digging a hole for oneself. No matter how deep you dig it is still just a hole, but there are dangerous threshold points such as the point at which you need someone else to get you out.

Second, addiction is a dynamic condition with, typically a narrative structure. Every addiction story begins with a description of a person consuming a substance, who is not addicted then, and ends with a description of one who is. The person at the start is in control, the person at the end has very little control. As theoreticians wondering about the question of addictive control and responsibility we should occupy the perspective of the addict in our thinking, but which one? Perhaps we should try to occupy all of the temporal perspectives by compressing the narrative and seeing how the life of the addicted person has unfolded. What we should not do is restrict our view of the narrative life of an addiction story to a point that favours some biased or pre-existing account (of the medical or moral variety outlined above). Those who favour a version of the moral model may tend to focus on points in the story where control was still there and addiction not inevitable. Those who favour a version of the medical model may tend to focus on points of full blown addiction where almost no control is present. The lesson here is to avoid cherry-picking segments of an addiction story that support one's preferred account. Once this requirement is in place the focus shifts to the story itself.

No one deliberately acts for the purpose of becoming an addict. Early stages of addiction feature individuals consuming a substance for a variety of reasons, and although they may from time to time be cognisant of the risks of developing a habit, the typical trajectory is such that addicted persons develop insight (or partial insight) into their condition only once they have that condition. Of course this is an argument for greater awareness of knowing one's vulnerabilities and responding prudently to them. But in the absence of that awareness it is a powerful argument against the claim that a person can be held responsible for their addictive state.

Those who become addicted do so as their drug dependent behaviour comes to be patterned, as the habit takes hold. Perhaps it was all initially motivated by pleasure and reward, by anxiety, a desire

for artistic inspiration, some or combination of these, and so on, but ultimately it is the patterned nature of the behaviour that becomes dissociated from the agents' sense of control over their life. As these patterns become cemented, tolerance drops, the intensity withdrawal increases, and life comes to be planned around the securing and taking of the drug. All these experiences lay down memories of what life is like: it is now centred on the single end of securing and taking the favoured substance. So one learns to live a life filled with the monotonous focus on the drug, and as that "story" comes to be enacted with no end in sight one is further taken away from what may formerly have been a life of diverse interests.

Accompanying this aspect of addiction is a story about what is happening to one's body and brain. According to several welldeveloped neurobiological accounts of addiction habitual highs create the dopaminergically driven need to focus on the same thing each day: something better than expected in the form of one's next hit.⁷ These neurobiological models are able to account for the shifting role of rewards in different phases throughout the life of an addicted person. Although substance use at the start releases dopamine in large quantities, re-orienting the addicted person towards a betterthan-expected outcome, repeated substance use leads to neural changes in the reward pathways. The resulting tolerance for the substance has two effects. One is that it leads to a higher threshold for experiencing the rewards that come from other (non drug-related) activities such as sports, food or social connectedness. The other is a more long-term motivational withdrawal, accompanied by anhedonia, a negative emotional state. This disposes the addicted person, during periods of abstinence, to be highly sensitive (and so vulnerable) to relapse when in the presence of people, places, paraphernalia, even bodily feelings associated with their former habit.⁸

In recent times the dopaminergic account of addiction has been supplemented by an understanding of the way consumption of certain substances over time in addictive quantities has effects on systems in addition to those associated with the mesolimbic pathway. So, for example, Steven Hyman (2005) has presented a review of the evidence supporting the idea that repeated use of certain drugs has an effect on the fundamental building blocks of personal identity: learning and memory. He summarises the position this way (2005: 1414):

Here I argue that addiction represents a pathological usurpation of the neural mechanisms of learning and memory that under normal circumstances serve to shape survival behaviors related to the pursuit of rewards and the cues that predict them.

Hyman is careful to emphasise that the evidence is incomplete and other pieces of the puzzle remain to be assembled. Still, having the neuroscience presented as an accompaniment to the phenomenological, behavioural, and

social accounts is of great significance. The link here to memory is important when we reflect on the philosophical accounts of personal identity that have emphasised the psychological connections in constituting (or partly constituting) what it is to be a person and to persist over time.9 So this is an important connection, for at the nadir of an addiction cycle, many addicted persons are simply unable to see themselves in the future as being drug free. In addition to the way addiction brings about this constitutive orientation towards the addictive lifestyle, it also constitutes an attack on the integrity and structure of a person's will. So for addicted persons, to that extent addiction is a disorder in their sense of themselves as agents, particularly as social agents. The damage to capacities for control and agency, then, re-sets the boundaries for one's self assessment.

Let us take alcohol as a working example. A person who at first uses alcohol as a social crutch may find that this social habit spreads into other domains, so that over time the alcohol forms a needed accompaniment to all kinds of personal exchange. In a recent study into how drug addicted persons view their lives one respondent gave a detailed account of how he filled his days. In all the scenarios he described - including his penchant for rising early and sitting on a beautiful beach to watch the dawn sun...with glass of wine in hand - it turned out that alcohol was always present. When asked if he could imagine himself engaging in activities without a glass a wine, he replied reflectively, that no, he could not imagine himself without it. Figures vary, but western countries lifetime in prevalence rates for alcohol dependence problems are about 1 in 20 people, and around 7 in 10 people consume alcohol. So if we expose people to alcohol we can say, very roughly, that 1 in 14 of those persons will later develop an alcoholrelated disorder. Why do the other 13 not develop a problem? A consensus is emerging in some circles that there is a vulnerability to alcoholism formed from a combination of social, genetic and neurological causes and circumstances. There is no dominant allele for addiction (which might have implied that, say, becoming an alcoholic is as certain as having blue eyes), but it is claimed a genetic predisposition to alcoholism may increase the risk of dependence by up to 50 percent. ¹⁰ More generally, then, the environmental factors for addiction are complex and heterogeneous: prolonged loneliness, rejection, abuse, extreme stress, or self-medication, may implicated. Other pathways exist such as intellectual curiosity, an artistic interest, an early pattern of peerreinforced abuse of alcohol or drugs, and so on.

What is common here is that the drug of use provides a combination of hedonia, relief, escape, or connection to others, and so a recognition from perhaps only one or two exposures of the means to repeat the experience. In Marc Lewis's memoir (2011) – Lewis is a neuroscientist who describes his former life as an addict – he describes his first experience getting drunk as a young teenager as providing

knowledge of how to deal with his miserable life. It gave him an escape hatch from the horrible reality of being mercilessly bullied at a military boarding school. The experience gave knowledge that from within a prison-like external environment where he had no control, a lever existed - selfadministration of a substance - providing him access to an internal environment (altered consciousness) where freedom could be found.

Some addiction researchers – of varying stripes, from those who emphasise voluntariness, to those who focus on the social determinants of behaviour - tend to downplay, or reject altogether, the idea that addiction is a disease of the brain. A key sticking point seems to be that since at least half of those addicted used willpower to change their behaviour, and so overcome their addiction, the condition is not a disease. For, after all, no one really beats a cold just by acting differently – one may relieve symptoms but the viral infection must run its course. Still, this assessment of the situation is surely too simple. I think each approach, taken as monolithically authoritative, is mistaken. The word 'disease' is certainly problematic; however, no word is really perfect here. The word 'disorder' is an improvement, which may be why it is favoured by the writers of the DSM.

So, certain vulnerabilities are causally implicated in addiction and then the question is: why do some vulnerable people end up compulsively consuming? The answer is that because of their social situation and biological makeup, as

discussed above, they have *learnt* to do so to the exclusion of all else. It takes time and a certain kind of dedication. Once a person is in an addicted state, the odds of recovering are stacked. A person with a history of addiction is far more vulnerable than a non-addict to relapsing into the cycle of wanting, getting, and taking drugs, through exposure to their drug of choice, and this is accounted for by the neuro-adaptations wrought from years of consumption. Addiction neuroscience has proven exceptionally helpful in explanation of the mechanism of relapse and this equips treatment professionals with an added understanding when their clients are at special risk. In addition, knowing the identifiable neuro-features of addiction is surely helpful if it permits an immediate internal means for an intervention. For example, Fowler (2007:4) et al write that "[c]linicians may one day - perhaps sooner rather than later – use brain imaging to assess addiction, to assign patients appropriate care interventions, and to monitor response to therapy." Even if this sentiment turns out to be overly optimistic, the understanding and treatment of addiction is greatly advanced when neuroscience informs our understanding of the narrative stages that characterise the addiction cycle.

Understanding addiction requires acquaintance with a range of complex phenomena. I have here identified these phenomena in an endeavour to avoid the mistaken reductionism or simplification one sees in naive medical models or in harsh and primitive just-say-no versions of

the moral model that pervade the social consciousness. There is good reason to emphasise a plural approach to policy and lawmaking, one that is sensitive to the complexities addiction presents. A full understanding of addiction recognises its diachronic effects and the way changes within the dopaminergic pathway have a destructive effect on a person's conative competence, that is, the willpower they need to regulate their activities in a way that sustains a modicum of rational agency over a significant period of time. In addition, and as Hyman hints, addiction comes almost to "arrogate" itself as a power over a person's sense of who they are; in proper recovery the addicted agent learns to take back control over who they are. A full theory of addiction will recognise the global losses to narrative identity which accompany the process of lost control in the most severely addicted individuals.

¹ This paper focuses on substance addiction. To avoid cumbersome usage I will use 'addiction' as shorthand for 'substance addiction' from here on.

http://rstb.royalsocietypublishing.org/content/363/1507/3137. full. See also G. F. Koob, & N. D. Volkow, (2010: 217-238).

References

Berridge, K. C., Robinson, T. E., Aldridge, J. W. 2009. 'Dissecting components of reward: 'liking', 'wanting', and learning', *Current Opinion in Pharmacology*, 9 (1), 65-73.

Ducci, F., and Goldman, D. 2008. 'Genetic approaches to addiction: genes and alcohol', *Addiction*, 103 (9), 1414-28

Heyman, Gene. 2009. Addiction: a disorder of choice. Cambridge: Harvard University Press.

Hyman, Steven. (2005). 'Addiction: a disease of learning and memory'. *American Journal of Psychiatry*. 162, 1414-1422.

Koob, G. F., and Volkow, N. D., 'Neurocircuitry of addiction', *Neuropsychopharmacology*, 35 (1), 217-238. Lewis, David 1976. 'Survival and Identity' in A. Rorty (ed.), *The Identities of Persons* (Berkeley: University of California Press), pp 17-40.

Lewis, Marc. 2011. *Memoirs of an addicted brain: a neuroscientist examines his former life on drugs*. Public Affairs: New York.

Locke, John. 1694/1984. *An Essay Concerning Human Understanding* Glasgow: Collins.

Morse, S. 1994. 'Culpability and control', *The University of Pennsylvania Law Review*, 142, 1587-1660.

Nozick, R. 1981. *Philosophical Explanations*. Cambridge, Mass.: Harvard University Press.

Parfit, Derek. 1984. *Reasons and Persons*. Oxford: Clarendon.

Robinson T. E., and Berridge, Kent C.,

http://rstb.royalsocietypublishing.org/content/363/150 7/3137.full.

Watson, Gary. 1999. 'Excusing addiction', Law and Philosophy, 18 (6), 589-619.

Acknowledgments

This research was made possible by funding from the Laurdel Foundation and an Australian Research Council Grant titled 'Addiction, moral identity, and moral agency: integrating theoretical and empirical approaches' (DP1094144).

Bioethics Outlook

A quarterly bulletin of the Plunkett Centre for Ethics

The Plunkett Centre is a centre of Australian Catholic University and St Vincent's Health Australia, Sydney

www.acu.edu.au/plunkettcentre/

Telephone: +61 2 8382 2869 Fax: +61 2 9361 0975 Email: plunkett@plunkett.acu.edu.au

Subscriptions: \$99 Institutions; \$55 Individuals; \$27.50 Pensioners & Students

² See Gene Heyman (2009).

³ This is less true of the state of the debate in academic and scientific circles where the nuance I point to is generally understood.

 $^{^{\}rm 4}$ See Gary Watson, (1999: 589-619); and S. Morse (1994: 1587-1660), for a contrary view.

⁵ There is a view that addicts are bad people because they are motivated by socially irresponsible pleasure-seeking. This is a false and highly damaging position that distorts public debate. For a critique of this view see Jeanette Kennett, Steve Matthews, Anke Snoek, "Pleasure and value in addiction", Frontiers in psychiatry, 4 – 117. Doi: 10.3389/fpsyt.2013.00117 (2013).

⁶ Gene Heyman op cit.

⁷ See K. C. Berridge, T. E. Robinson, J. W. Aldridge, J. W. (2009: 65-73).

⁸ Terry E. Robinson & Kent C. Berridge,

⁹ There is almost no psychological account of personal identity that does not feature memory. A snapshot of some main influences would include David Lewis (1976), John Locke (1694/1984), R. Nozick (1981), and Derek Parfit (1984).

¹⁰ See F. Ducci and D. Goldman, (2008: 1414-28).