

Pharmacology

Edited by Dave Boothroyd

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Introduction: Drugs are us

The popular trope which depicts the origin of life on earth as emerging from a ‘chemical soup’ continues to have an enduring hold over the imagination. Of course, whether this ‘soup’ was a prebiotic puddle on the surface of this third rock from the Sun, originally ‘canned’, superheated and pressurised in one of its internal faults, or a kind of extraterrestrial material reheated in some way after having reached the early Earth from elsewhere in universe, may not be known for sure. Nevertheless, advances in sciences such as paleogenomics and paleohistology have shown us that at least a part of the story of the origin of life can be traced in each and every cell of our living bodies.

Given that this is the case, it perhaps warrants thinking of the human creature as a highly evolved, walking, talking, sentient form of chemical soup. The puddle made good! Chemistry might not *be* life, but if we define life as the capacity for a chemical process to ‘involute’, become organismic and reproduce itself, then clearly questions concerning ‘life’ and ‘what we are’ can at least be concretely answered in terms of the discourses of

biochemistry, the organism, the species, genomics – and with reference to other concepts formulated within the natural and life sciences. In the cultural context shaped by such knowledges, drugs, and the study of drugs, identified as a particular group of bio-chemical reagents with various potentials for altering the dynamics, structuration and evolution of ‘chemical organisms’, has become the conventional and prevalent sense of ‘pharmacology’. The word ‘pharmacology’ brings to mind the science and knowledge of drugs as a very special set of molecules which are essentially sym-biotic. In other words, such scientific pharmacology approaches ‘drugs’ as chemicals viewed from the perspective of their potential for interaction with living organisms. Conventionally, this is expressed in terms of the two valences of pharmacodynamics and pharmacokinetics.

Pharmacodynamics refers to interactions between organismic receptors and a drug, pharmacokinetics refers to the four stages of drugs ‘passing through’ the organism: absorption, distribution, metabolism and excretion.

To the humanities or social sciences scholar who may be interested drugs - say in the relationship between drugs and perception, drugs and popular culture, the social dimensions of drug use/abuse and addiction; or, perhaps, in drugs and ritual or religion; drugs and crime; drugs and creativity, drugs and euthanasia (this list of ‘drugs AND...’ something is essentially interminable) - this picture of the relationship between the human organism and its environment at the level of symbiotic chemistry could seem irrelevant or obscure. The workings of drugs in terms of, or at the level of, chemistry and of ‘life’, discussed in terms of the organismic and the biochemical,

might appear to be an entirely other kind of matter – in both senses of the term. Such a matter, and such bio-material, can be regarded as quite simply, and categorically, unconnected to the various kinds of ‘narcocultural’ phenomena that the humanities and social sciences are diversely concerned with. Indeed, as a *logos* for ‘drugs’ – for the *pharmakon* – scientific pharmacology may, like other natural sciences, appear to be profoundly reductionistic, and systematically so: reductive of ‘the human’ to cellular biochemistry; reductive of experience and perception to chemical mechanisms and neuro-electro-chemical events; reductive of love, desire, pain, anger and empathy to the chemistry of neurotransmission balances and imbalances; reductive of species of mystical or shamanic experience to molecular processes or entities – for instance, to name just one candidate, a substance such as dimethyltryptamine (DMT), which has been dubbed the ‘spirit molecule’.

But as I noted a moment ago, even (perhaps especially) for scientific pharmacology, a chemical substance is not technically speaking a drug unless it is in an affective relationship with a living organism. It must, in this sense, become active or mobilised. Something has to happen. It has to be consumed and incorporated as the two aforementioned valences of pharmacodynamics and pharmacokinetics implies. This is why the notion of the ‘possession’ of drug in anything other than a contrived context of prosecution for possessing a ‘controlled substance’ deemed a criminal offence, amounts to a kind of logical absurdity. A ‘substance’ (which is in fact an ancient word for the metaphysical concept of the presence of a ‘thing’), cannot properly be considered a drug, and

pharmacology, even scientific pharmacology, is not in fact a science of substances at all; it is rather a science of processes and, in general, of affective differentiations. It is ultimately interested in *what happens* rather than *what is*.

To a regular scientific pharmacologist (when 'at work' at least), dwelling on this difference may seem like a pointless bit of metaphysics. Besides, don't we all want such pharmacologists to discover new drugs and drug therapies which are executable on the basis of the isolation of 'substances' – magic bullets which can then be 'taken' as medicines, or, indeed, as novel varieties of intoxicants. Isn't it just obscurantist to suggest that 'drugs' are not also substances, or that these 'pharmaceutical substances' – even those on the chemists shelf - are not 'drugs'? Well it may seem so, I admit, but this is because it is very difficult to escape the effects of the various rhetorics of drugs that are in circulation. But what I think it is important (as well as fascinating) to do is to attempt to keep open the question of 'drugs' as a conceptual question, and to critically reflect on the way in which the definition of drugs (and, therefore, of pharmacology) is in many respects closed down by the predominance of scientific pharmacology as the primary discourse of drugs and the presumed sole legitimate source of drugs expertise. Yet if one considers for a moment how wider society designates 'substances' as or not as 'drugs'; if one thinks for a moment about the ways in which various plants, tonics, beverages, foods, smoking mixtures and so forth can be defined as illegal substances (that is today what the word 'drugs' tends to bring to mind for most people); and how an entirely different set of

pharmaco-logics are always at work in the broader understanding of ‘drugs’ in society, then it becomes clear that *the conceptualisation of drugs is a matter of concern far beyond pharmacology ‘proper’*.

My point here is simply that there are many possible *logoi* of ‘drugs’; that there are many different forms of drugs expertise and sources of wisdom as to how we humans might get on better with them than we currently do. In suggesting that we get along poorly with drugs, I am thinking of everything malignant that might be considered a consequence of the ‘war on drugs’: the suffering, death and destruction that this war has unleashed across the globe. I am also thinking of the socio-political ‘control’ of drugs that actually, and counter-intuitively, gives rise to adulterations, poisonings and avoidable overdoses – pseudo-controls, in reality, that are not in any way sym-pathetic with the sym-biotic nature of the relation between drugs and life. We should also not fail to note at this point the hoarding and withholding of medicines from vast swathes of the of the world’s population in the context of the corporate wealth strategies of ‘big pharma’, commodity speculation and the geo-politics of the official and unofficial trade in drugs and the management of intellectual property. If drugs can be considered to be a part of us, literally as well as figuratively, as I have suggested, then patenting their recipes is arguably on a par with the patenting of sequences of genomic code.

Ideally, the only kinds of drug controls that society should aim at instituting are those which serve to realign drugs generally with the interests of ‘life’. But just what this

means is precisely what we need to think about most. “Choose life!” – a catchphrase with an apparent ‘anti-drugs’ message popularised through the Irvine Welsh novel (and then the Danny Boyle film), *Trainspotting*, could just as well be considered to imply ‘choosing drugs’, but meaning ‘choosing drugs well’. Such a refrain, in this living book, would count as a speculative ‘pharmacological thesis’ in so far as it forces us to ponder the relationship between ‘life’ and ‘drugs’ – once more from the beginning and repeatedly, and whilst freeing ourselves from the handicap of preconceived epistemic boundaries.

I want above all here to suggest that we cannot, and ought not, to isolate the many possible pharmacologies from one another if we are to understand ‘our relationships to drugs’ in the deepest sense. (I have chosen to represent several of these in the initial selection of material for this interactive experiment with drugs publishing.) If are to find answers to questions such as ‘what are drugs for?’, ‘what are their potentials?’, we have to be willing to widen our understanding of what constitutes pharmacology as such. We have to rethink our understanding of ‘drugs research’. We need to reconsider what constitutes legitimate experimentation with drugs. We have to reflect, I believe, on the fact, or indeed on the facticity – the very materiality – of our ‘narco-being’, and how human being has always been a form of ‘being-on-drugs’. Drugs are integral to the mediation between interiority and exteriority and central to the actual, material production of a biological boundary between the human subject and the environment it inhabits.

Sigmund Freud discusses this point of involution of the psyche as chemistry in his *Project of Scientific Psychology* (1895) – and, intellectually speaking, he almost went down the road to psycho-pharmacology as a means of arriving at the possibility of better living through chemistry. I have shown elsewhere that Freud decides against this route on pragmatic grounds: in his day the prospect of the speedy discovery of a suitable range of drugs for the clinical challenges he faced was remote. But most significantly, despite its distant prospect, he nevertheless entertained the theoretical possibility of psycho-chemotherapy. Building on the basis of late 19c. scientific discourses of chemistry, electricity and neurophysiology, Freud had begun to theorise, the electrochemical and biological nature of proper human functioning. His early experiments with cocaine played a part both directly and indirectly in this pre-psychoanalytic trajectory of scientific inquiry. They also served, in the form of reworked psychic material, to direct him towards his eventual arrival at full-blown psychoanalysis.

I recall this here because it was one specific manifestation of the historical split between the scientific and humanistic modes of *wissenschaftliche* inquiry into ‘life’ which can be traced in modern western culture. There are many, many others. In the context of this project for ‘living books about life’, I am particularly drawn to this moment of ‘Freudian pharmacology’ – from the ‘Cocaine Papers’ (1884-87) to the dream of Irma’s Injection in *The Interpretation of Dreams* (1900) – because this is one point at which the split between what C. P. Snow, half a century or so later, articulated and popularised as the

‘two cultures’ can be directly linked with the question of drugs.

However, the image of a ‘divided culture’ has often created a false impression of decisive bifurcation, whereas in reality the division has never entirely held.

Philosophically speaking there’s ultimately no ground for it – or rather its apparent efficacy is the consequence of a bifurcation of philosophical traditions. The historical division between the sciences and the arts and humanities has always been fundamentally political and institutional – as indeed is both past and current critique of the perceived split. The politics of knowledge (of drugs for instance) is caught up in its entirety (and across its many forms) with the uses and perceived ab-uses which people engage in when they take drugs, whether wilfully and individually, or on the basis of authoritative, often medical, prescription (and misprescription). Drugs ‘themselves’ play a part in those politics through their ‘effects’ – but where are the boundaries of what we call the ‘effects’ of drugs? Certainly their effects cannot be limited to either the reported effects on ‘drug users’ or supposedly objective observations of ‘drugs researchers’. As well as being physiological and medical, their effects can equally be considered to be economic or sociological in character: drugs are commodities, they are criminogenic, they are counter-cultural, and so forth. Drugs might equally be seen to exhibit a determinative force in relation to *culture in general* - influencing style, taste, ambience, aesthetic sensibility, and so forth. Just as gravity twists the space-time matrix and yet is not itself outside of space-time, drugs contort the surfaces of culture but are *cultural substances* from the first.

There are numerous, perhaps countless instances where a *chiasmus* of science and the humanities, rather than the rending of ‘culture’ into ‘two’, is evident in interdisciplinary cross-fertilisation – and this is apparent within the diverse field of ‘drugs research’ as this is presented in this living book. I have set the ball rolling here by including contributions that I believe illustrate how this is the case. In doing so I want to indicate how we can indeed embrace the idea that ‘we are chemistry’ and that ‘drugs are us’, as it were, without subscribing to what I would call naive empirico-positivistic reductionism. Dialectical thinking has to deal with the positive and the negative. Alternatively, perhaps what is called for is an anti-dialectical transcendental empiricism and a rethinking of immanence of the kind we find in the work of Gilles Deleuze, or at least to think along conceptual lines that enable us to take drugs seriously in terms of drug *affects*. It is not the case that the humanities have been *superseded* by the natural sciences – that is a political myth, when it comes to drugs, or indeed any other field of inquiry. We do, nonetheless, have to embrace a certain ‘empiricism of the substance’; but also to critique it on the basis of ‘it’ being just as much subject as substance: drugs are only drugs in their being taken, that is ‘subjectivised.’ Subjectivation in this sense does not rest on the denial of the empirical, it refers us rather to the super-empiricism of life: drugs interact with ‘life’, with ‘perception’, with ‘experience’; they alleviate pain; they reset the controls of our cells; they facilitate transitions in our being in fundamental ways, etc.; and all of these things are irreducibly ‘empirically real’.

In my view we can embrace this state of affairs *intellectually*, precisely because the pharmakon is a special kind of concept to start with; or, rather, as Derrida would say, it is neither simply a word nor a concept, it is rather a power of differentiation. It signifies at once both 'poison' and 'cure' and, therefore, all 'pharmacologies' are, perhaps in very differing senses, sciences of doses. The quest of all drugs research is ultimately the pursuit of some sort of 'measure' for drugs. There's always a risk of 'overdoing it'; there's always the chance of nothing happening – the risk of a volume like this perhaps. There's always a risk associated with drugs as a theme, a topic, a therapy. There is a sense in which drugs also represent a 'chance' of sorts, a throw of the dice and an opportunity.

In curating the collection comprising this volume (at the point at which it goes live at least), I have attempted to get the mix right so as to provoke interdisciplinary thinking around the theme of drugs and pharmacology. And I have tried to calibrate for possibility of addition, change, reorganisation of boundaries and the rethinking of disciplinary overlaps and exchanges through further addition, reorganisation and juxtaposition. I have aimed to include material which will attract those interested in drugs and pharmacology as they already understand these things to read the work of others arriving at them from entirely different directions. I very much look forward to seeing and reading the contributions which users from all areas of 'drugs research' will add to these pages.

Notes

1 See my *Culture On Drugs: Narco-cultural Studies of High Modernity* (Manchester: Manchester University Press, 2006).

2 These are gathered in Robert Byck (ed.) *The Cocaine Papers* (New York: Stonehill Press, 1974).

3 In 1959 C. P. Snow delivered the annual Rede Lecture in Cambridge with the title 'The Two Cultures and the Scientific Revolution'. He spoke of the gap that had opened up between literary inquiry and the sciences and the breakdown of communication between the two groups of intellectuals. Suffice to say here (in lieu of a lengthy bibliography) the 'two cultures' debate has been a British 'culture wars' chestnut ever since.

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