


The dialectics of heroin and methadone in Ireland

A. Jamie Saris 

Department of Anthropology, Maynooth University, Maynooth, Ireland

In this paper, I reflect on two of my intertwined research interests. The first is my professional engagement with researching drug use and abuse in Ireland, especially heroin addiction, in applied ethnographic projects, generally answering a specific set of questions on how services for ‘drug addiction’ work. My second interest is the historical construction of ‘addiction’ and the discursive intersections that produce various kinds of power, subjects, and techniques around this concept. I find the dialectical relationship between heroin and methadone in Ireland, especially the emergence of heroin ‘injecting rooms’, as a window into how drugs are social things. Drugs and the bodies who take them live in complex moral worlds, not as inert objects surrounded by abstract human creations. These worlds are an integral part of how ‘addiction’ works and how drugs treating addiction are actually used. Without a deeper understanding of such complexities we will continue to miss key issues in the lives of people we hope to help.

Received 15 April 2020; Revised 19 May 2021; Accepted 24 June 2021; First published online 19 August 2021

Key words: Heroin, methadone, Ireland.

Opiates adrift in history

For more than a century, modern opiates have been entangled in state politics and economics – from heroin going from the second or third patented pharmaceutical in most jurisdictions to becoming the first modern drug scourge, through the emergence of different opiates to ‘treat’ heroin dependency under the banner of ‘replacement therapies’. Methadone, the first of these compounds, though, is more than an ambiguous footnote in the war on drugs based on indifferently rational state policies. Methadone’s very existence grows out of what the American journalist, Randolph Bourne, famously understood as ‘the health of the state’, that is, various forms of war. It was synthesized originally in Germany in the early 1940s as part of an express policy of autarchy, the Nazi regime fearing that its supply of opium could not be guaranteed during the hostilities. In the wake of the Nazi regime’s defeat in 1945, I.G. Farbenkonzern lost its patent rights to the drug, and, within a couple of years, the American pharmaceutical company, Eli-Lilly, was producing it commercially (off-patent) as an analgesic. It was not, at first, a very profitable seller, but hardening attitudes in Washington and London to prescription heroin and so-called ‘dope doctors’ in the post-war period accelerated the development of large black markets for heroin from the late 1950s, which spurred some research interest in heroin substitutes. These markets also called forth increasingly repressive legislation and focused a number of other research projects on why users risked so much to

continue to use heroin. In retrospect, we can see these policies and projects as the first shots fired in the modern state war on ‘drugs’, which, like most modern ‘wars’ waged by Great Powers in the post-war period, was already well underway before it was officially declared in the United States in the early 1970s.

Wars, though, are generally waged through several modalities simultaneously, and the War on Drugs is no exception. Heroin, for example, had already resisted the mailed fist of internal security going back to the early 20th century, insofar as many users had shown a willingness to risk fines and prison time to continue to use. By the end of the 1960s, the obvious shortcomings of this criminal-law regime, and an increasingly confident research-driven medical establishment in the United States, which had gone from success to success with New Frontier and Great Society funding, spurred an interest in developing mass pharmacological techniques to change the behavior of heroin addicts. This pharmacological intervention was to be a sort of surgical strike targeting just the illicit appetite, without the collateral damage of lives lost in prison and excess mortality and morbidity of the black market. Methadone was one of the first compounds successfully trialed in this capacity going back to the 1950s, and it marked one of the main bridges between the discourse focusing on criminalizing certain drugs and their users and understanding these same phenomena as social-medical problems – a war on drugs to be sure, but now conducted by kinder, gentler means. Different states chose different mixtures of harm reduction and criminal sanctions to wage their specific war on heroin. From an early point, though, most of Europe has been fairly friendly to methadone, so that most European harm-reduction strategies lean heavily on the drug.

Address for correspondence: Dr A. Jamie Saris, Department of Anthropology, Rowan House, Maynooth University, Maynooth, 8798, Ireland.

(Email: ajamie.saris@mu.ie)

The US picture is more variegated, but in methadone's strongholds on the Eastern Seaboard, one can find people who have been on the drug (legally) for decades (Negraponte, 2005).

This paper examines methadone and heroin in Ireland through the lens of two of my intertwined research trajectories that develop out of this complex history. The first is my professional engagement with researching drug use and abuse, especially heroin addiction, in Ireland. I have been working on this topic on and off for the last 20 years or so, and I have led teams examining such diverse issues as estimating the total number of heroin users in Ireland to charting changing patterns of drug use in Dublin (e.g. 1998, 1999, 2005, and 2010). Such work, of course, is not funded solely as an intellectual exercise. For better or worse, illicit drug use in general, and opiate use specifically, presents itself as a serious social-medical problem, and my research teams have been funded with the implicit 'practical' purpose of reducing such 'drug abuse' and, occasionally, with providing 'user perspectives' on 'treatment'.

At the same time, in my second 'drugs research hat', I am intellectually interested in the historical construction of 'addiction' and the discursive intersections (in Foucault, 2001 (1970)'s sense) that produces various kinds of power, subjects, and techniques around this concept. To this extent, I have engaged in more general theoretical and ethnographic discussions in anthropology (and beyond) on the nature of both 'addiction' and 'treatment' both in Ireland and internationally (Saris, 1998, 1999, 2005, 2006, 2007) as well as the implications of such concepts for important questions like how humans and pharmaceuticals work in different historical and cultural settings to the nature of fundamental philosophical problems like 'free will' in different settings (see the various contributors to Jenkins, 2010; Raikhel & Garriot, 2013). In this paper, I argue that the way opiates circulate in discourses, histories, bodies, and communities is an opportunity to explore some of the ways these two interests of mine interact and possibly illuminate one another.

The ethnographic data in this work are from several projects over almost 20 years. Informed consent and permission for anonymous quoting were obtained from all participants. All names used in the work are pseudonyms, and identities have been further obscured by changing some contextual details.

The problem

In February of 2017, The Misuse of Drugs (Supervised Injecting Facilities) Bill 2017 was passed by the Seanad. With the President's signature later that month, Ireland joined a select group of countries in declaring a partial

armistice in the 'War on Drugs', by legally sanctioning supervised injection rooms for the consumption of heroin and even beginning to discuss seriously the prospect of limited decriminalization. Implicitly, these changes tweaked the valences of 'heroin', from unremitting scourge of bodies and communities to, perhaps, a necessary evil, even as a barely tolerated part of 'treatment'. While this move was hailed in the national and international press as an enlightened victory of a public health/harm-reduction strategy over the destructive militarized model of attacking certain psychotropic compounds as 'enemies' (and their users as somewhere between collaborators and collateral damage), there has been little discussion of how this change fits into the history of one of the longest global conflicts on record, that is the 'fight' against 'drugs' and, in particular, how the tolerance of injection rooms fits into one country's strategy of addressing 'addiction', that is, a small front in that global war.

Like most researchers in this space, I welcomed the passage of this law as an important moment, one of the few examples in Europe and North America of policy directed at helping the sort of people who do not generally garner much public sympathy in difficult situations, rather than policy aimed at assuaging the sensibilities of middle-class voters. Yet, I also had niggling worries that the formal recognition of 'injection rooms', say, in terms of planning permission, was not going to be so straightforward, and, at the same time, being suspicious that the availability of such 'treatment' was no guarantee of its actual social acceptance among heroin users, never mind the general public. For example, I had long since documented the purchase of methadone several times in my various projects, the vast majority of which had almost certainly come from someone's 'free' prescription, so there was no guarantee that 'injecting rooms' would be any easier to conceive of as something that facilitated 'treatment'. At the same time, I had often come up against the question (usually articulated by policymakers or those who administered policy who really did not believe my data on methadone sales – 'why would someone buy something that they could get for free?'). It's a good question, and it gets to the heart of the definition of (and social expectations for) 'treatment services' that I shall explore in this paper (see Saris, 2008, n.d) through framing the history of methadone and heroin in Ireland.

Methadone and therapeutic opiates

The modern formulation of addiction as an individual medical condition with potential individual pharmacological treatments/workarounds, out of which the complexities of methadone develop, owes much to the work begun in the 1950s by Dole and Nyswander using

methadone as a heroin substitute. Their seeming success in moderating the behavior of some heroin users with methadone led to their formulating the concept of ‘metabolic lesion’ as the root cause underlying the specific behaviors associated with heroin abuse, albeit in the register of endocrinology rather than the modern one of neurology. The key texts in this movement, as scholars, such as Courtwright (2001) and Agar & Reisinger (2002a, 2002b) have pointed out, are two articles, the first published by Dole & Nyswander (1967, 1976; Dole, 1991) based on more than 15 years of treating heroin abuse. In these pieces, the authors argue that heroin addiction was the result of a deeper ‘metabolic disease’ that could potentially be stabilized through pharmacological intervention. Methadone, an opiate agonist, operates basically by getting to the mu opiate receptor ahead of heroin and, consequently, blocking the euphoric qualities associated with this drug. It also binds to this receptor for long periods, thereby significantly reducing withdrawal symptoms (that is, getting ‘dope sick’). Without such a work-around, the authors argue, the various dangers in an addict’s life – from the social risk associated with illegal use to the threat of criminal sanction to the actual physical dangers that surround the economic activity to pay for such use – simply did not serve as sufficient deterrent to heroin (and other opiate) consumption.

More than a half a century later, there is an extensive body of international harm-reduction literature demonstrating the positive effects of methadone maintenance treatment (MMT) on a range of problems associated with heroin use, including reducing illicit opiate use, frequency of injecting, and sharing needles, among other risk behaviors, as drug-related crime, and even improving mental and physical health status (Marsch, 1998; Gossop *et al.* 1998). Yet, methadone is not in itself an especially safe drug, and in many jurisdictions, it kills as many (or more) users as heroin (e.g. Simonsen *et al.* 2011; Steentoft *et al.* 2006). Very few people, moreover, are really resigned to the permanent ingestion of an opiate, neither the users themselves, nor the tax payers who fund such treatment (for a critical, but well-considered look at long-term methadone use, see Negroponete, 2005).

Opiates in Ireland

In general, Ireland has tracked the system in Britain, originally developing a central treatment agency established at Jervis Street in Dublin in the 1980s, under the clinical direction of a consultant psychiatrist. It was originally based on an abstinence model, alongside criminalization of heroin and addicts. In 1988, following the closure of Jervis Street clinic, the National Treatment and Rehabilitation Board, widely known

as ‘Trinity Court’ moved to Pearse Street. This was a psychiatrist-directed facility (Butler, 2002; Saris, 2008, among others). Over the next decade, however, services and policy became less centralized as more General Practitioners (GPs)-prescribed methadone and an increasing space was made for more overt harm-reduction thinking.

The introduction in the mid-1990s of a modern methadone protocol in this context was seen as a pragmatic success, and it was tolerated by Irish policymakers, who might otherwise have been hostile to it because of the fear of spread of HIV/AIDS that invisible and illegal injecting posed. In other work, I have explored some of the unintended effects of such harm-reduction thinking in Dublin’s developing heroin problem in the 1990s (Saris, 1999, 2008; Butler, 2002). A combination of a cheap heroin wave in the 1990s and the success of the anti-injection message spurred by concerns over the spread of HIV ruptured the connection between heroin and syringes in local moral worlds, providing both the real and symbolic means of getting high on gear (heroin) without injecting, making ingesting heroin more acceptable and widespread. This led, of course, to increasing populations clamoring for access to drug (heroin) treatment, meaning (largely by default) government-provided methadone. In about a decade, then, methadone went from a relatively exotic treatment option in Ireland (usually at the endpoint of several formal referrals) to virtual ubiquity in the handful of neighborhoods in the capital with a significant heroin problem. Indeed, from about the late 1990s, access to methadone treatment emerged as one of the main political demands from local activists, as MMT seemed to be the only available means of keeping the scourge of heroin at bay. Methadone also emerged as the primary optic through which the state viewed ‘treatment’ from the late 1990s, as demands for action to address the ‘heroin crisis’ were met by increasing the size of the Central Treatment List (CTL), resulting in an almost fourfold increase by the second decade of this century. While other treatment options certainly exist in Ireland, saturation of the CTL in an area can emerge as a contentious issue between local groups and the government as to the nature and severity of local drug problems (see O’Reilly & Saris, 2010).

The social life of opiates

By the time that I began working on Dublin’s drug problem in earnest, some 20 years ago, the CTL was creeping toward 3 000 on its way to more than 10 000 where it stands today (Delargy *et al.* 2019). Methadone had become a central part of the lifeworlds of its users and, of course of the day-to-day lives of many thousands more, through direct connection with loved ones

and acquaintances, and, then, ultimately as more or less available street drug. From the beginning of my interest in heroin use, it was clear that methadone existed in complex, often contradictory circuits in the lives of people both on and off heroin. As Mary (a pseudonym) related to me in one of my early projects (2000), during her first attempt to break away from injecting heroin, methadone was both treatment and income generator, and did not necessarily replace heroin consumption.

... So I went back to me Ma's, got me head together and all, got me phoy off me doctor every week, sold some of it, make meself an extra few bob every week, started getting meself clothes and that ... I was taking some of the phoy, but because of the doctor, he was, ... I was getting so much that I was selling it ... Then I started looking back on the way me life was after being ... [strung-out]. I got meself straightened out for a while. So, one day I bumped into a person and they'd a smoke and I said I'll just have the one, and then was just back to the one again, and I ended up back smoking it heavy then again. One thing I'm always grateful for is that I never went [back] to the needle. I think the way I got off the heroin, if I had a started [back] on the needle. I don't think I would have got off it the way I did.

I was one of the early researchers to document the variance between the official understanding of drug problems (i.e. that a heroin user has a 'problem' with heroin) and what I (and my collaborators) have called in some places, 'exuberant polypharmacy' (e.g. O'Reilly & Saris, 2010), as the default setting in the lives of nearly everyone that I came to know through this sort of work. In other words, practically no heroin user in Ireland (and no doubt in most other places in the world) used *only* heroin. Larger-scale documentation of people on the CTL using methadone (with a variety of prescribed drugs, drugs that were legal, but being used off-label and illegal pharmaceuticals, such as heroin, (e.g. Cullen *et al.* 2000), however, was not necessarily welcomed by Irish government funders and policymakers because it seemed to throw into doubt the effectiveness of 'treatment' while making statistical estimates of 'hidden use' that relied on the CTL as a 'baseline' problematic. My own learning curve as an ethnographer was also steep. The brains and bodies from whom I learned about methadone were very different, at a fundamental biochemical level, from that of their sometimes rather slow student. Methadone entered a complex pharmacological ecology that for most users alternates between periods of relative stability and chaotic loss of control, nearly all of which occurs on a substrate of very heavy drug use and significant social challenges. Its

effectiveness was generally assessed at the level of the user, not so much as a 'replacement' for heroin, but as a way of managing a life that often intersected with that drug, along with a great many other problems.

Another irony my teams and I observed was the complaint from many people on MMT that methadone was actually seen to be *more* difficult to give up than heroin. As another young woman, Aine, elegantly related to a member of one of my research teams,

I went in [to inpatient treatment] coming off heroin and the sickness lasted for four, five days at the most. And I was brand new after that, so I had five weeks to meself, eh, to get me head together. The second time I went in, I went in coming off methadone, and methadone seeps into your bones, and it took ... I was going into me fourth week and I was still dying sick and ... I actually thought, like it was a six-week programme and I told them, like I says, if I'm still feeling sick on the day I'm supposed to leave here, [then] I'm not leaving.

There is something very apt in this trope of 'seeps into your bones', as MMT is usually delivered in a syrupy liquid while, at the same time, it infuses and organizes a lifeworld around daily dosages and regular medical and pharmacy appointments. Aine's argument with images (in Fernandez' 1986 sense) helped me think through other metaphors I was hearing from many other young people in the early 2000s, describing MMT, as 'chemical handcuffs' or being forced to live as 'government junkies', cheaply warehoused in often underserved and poorly resourced neighborhoods. This discomfort slowly seeped even into the sensibilities and statements of community political activists (who in the late 1990s had listed access to methadone as an urgent local priority) but only 10 years later were beginning to fret about the illegal markets for methadone in their neighborhoods. They especially worried that the abuse of this drug (especially in combination with other legal, but prescription-controlled medications) would remain all but invisible to both harm reduction and policing logics because of its branding as 'treatment'.

Treatment

Nonetheless, in my various projects over the past two decades, I still have ended up coding the majority of the off-label (purchased) use of methadone that my teams and I have observed as 'therapy/treatment'. Some people, for example, do indeed purchase methadone to supplement their own legal dosage, but more

will purchase methadone from people on the CTL as a first step to moderating their risk-taking behavior when they are experiencing their heroin use patterns spiraling out of control. At the same time, we have documented people successfully on treatment for many years who have become almost connoisseurs about the recreational possibilities that an opiate-saturated brain body provides for pleasurable (and largely legal) drug interactions. Prescription drugs, like minor tranquilizers, for example, can (apparently) provide heroin levels of euphoria if taken at specific times with your methadone (see also Rooney *et al.* 1999). My point here is not to suggest 'new' ways to get 'high'. Indeed, even after a couple of decades of on-and-off research with this population, I remain a rank amateur with respect to the hedonistic possibilities of exuberant polypharmacy. Instead, I wish to highlight the complex negotiations – between doctors, nurses, community members (and, indeed, researchers) with such pharmacologically saturated bodies who routinely describe embodied sensations in an environment with ambiguous social definitions of terms like 'drugs', 'getting clean', and even 'recovery'. Few of these complexities can be resolved by the either/or logic of institutional rationality, where individuals are listed as 'in treatment', or presenting themselves as 'clean'. Meanwhile, such subjects live most of their lives (like the rest of us) as friends, lovers, parents, partners, children among other social roles, while negotiating (sometimes) pharmacologically assisted solutions to stressful situations in often-difficult lives.

Sometimes, however, such co-use strikes one as perverse from any perspective. One of our informants, Ken, for example, found out that, while on MMT, he became a much more professional heroin dealer, able to sell the drug without risking the profits to fund his own opiate habit (see O'Reilly & Saris, 2010). This (profitable) stability worked well for a while, until he started to spend his increasing surpluses on crack, to which he acknowledged he was then 'addicted'. At the same time, while he found he could be among people smoking heroin without temptation to use any more (thanks to both the methadone and the crack), he still finds pleasure in social settings where gear is in use because of the acknowledged quality of his product and his skill in preparing it.

You know the way it is. I'd be able to sit there now and if there was ten people sitting there at the moment, the others would say 'yeah'. I'll roll the gear for them and it wouldn't bother me, some people wouldn't be able to do that.

Overall, though, the most common relationship to methadone by those on the CTL, however, is one of grumbling dissatisfaction, sometimes spilling over to

outright complaint. Most of the metaphors used to describe a situation where treatment for heroin abuse often begins and ends with weekly prescriptions of a synthetic opiate emphasize the 'suspended' quality of this state of being – that is, feeling *parked* or *stalled* in a version of 'treatment' that cannot seem to make up its mind as to whether it is an avenue or an impasse. In a certain sense, 'injecting rooms' have experienced an analogous fate at the level of policy and planning regulation: historically available in the blindspots of law enforcement, and now visible in through a regulatory optic, while still existing in the lives of some users.

Conclusion

Thus, the actual result of the 2017 legislation is still, more than 4 years later, uncertain, a *suspension* metaphorically familiar to my understanding of the sense of stasis articulated by many people I met 'in treatment' over the years. Ironically, it is as if much of the thinking about the treatment for drug abuse in Ireland is now stalled. *De facto* legal tolerance of heroin use in supervised settings is now officially delayed by a *De Jure* feature of the Irish Planning Process. Thus, the few Dublin injection rooms that were grudgingly tolerated by a quietly flexible criminal-law regime are now at more formal risk through a loudly rigid regulatory one. Yet, that is simply the latest moment in the life of these 'dialectical opiates' in Ireland. The long-standing relationship between methadone and heroin, as well as the contradictions this pairing serves up, provides both a methodological means to understand the lives of users *and* a theoretical optic into the logic of the human subject itself. States see, and regulations intervene, in life-worlds, but often in unexpected ways. 'Successful' treatment for opiates, for example, can sometimes make a better heroin dealer or create new populations looking for other drugs or produce new and unexpected circuits of pharmacological pleasure through the use of prescribed drugs, while paying at least lip service to concepts like 'clean' and 'legal'.

Other ethnographers of opiates have noted similar complexities around the relationships between 'legal' and 'illegal' or 'dangerous drug' and 'therapeutic modality', such as the overt racialization of methadone and buprenorphine in the work of Hansen and her colleagues in the United States. As part of a belated recognition of the 'opioid crisis' in America, methadone, mostly distributed publicly (mostly for free) in street clinics, catering to poor, mostly men and women of color, became coded ever more 'Black' as a condition of possibility of recognizing heroin use in middle class White populations, with buprenorphine emerged as a respectable 'White' drug, prescribed privately in a doctor's office, now routinely covered by individual

insurance (see Netherland & Hansen, 2017; Hatcher *et al.* 2018). Unlike earlier thinking of drug 'biographies' (van der Geest *et al.* 1996), such research shows not a smooth historical trajectory of magic-bullet optimism to therapeutic disappointment (and occasionally to a policy concern that a drug that can be 'abused'), but a fundamental social-cultural situation of both the drug use and the social responses to such use that shifts as institutional regime change. This insight forces us to eschew simple ideas like 'addiction', 'normalizing technologies', even 'treatment' or 'harm reduction' and instead focus on how specific cultural circuits of things, meanings, regulations, and bodies exist in concrete social-historical circumstances.

Methadone and heroin form varying nodes in this circuit in Ireland, but they show the futility of theorizing a deracinated individual body (one not just without 'history' but one with a completely fictional standard-average biochemistry that is immediately apparent when examined) 'choosing' to take a 'drug' (see also Alexander, 2008). An obvious example of this biochemical difference is the tolerance one builds up to the respiratory effects of opiates. A therapeutic dose for someone on MMT is potentially fatal to someone without such tolerance. While this fact is recognized, at least implicitly, on an individual level, its implications for thinking about 'drug abuse' in such subjects (almost all of whom are taking many more compounds than opiates) at a public policy level are to be generous, muted.

Thus, a radical socialization of pharmacology and a greater understanding of brain research in the social sciences are long overdue (see Saris, 2011, 2013), but we also need to continue to increase our understanding of the specific social-cultural structures through which psychiatric (and other types of medical) knowledge and practices are imported and localized (Sardowsky, 1999; Saris, 2008; Street, 2014). Drugs and the bodies who take them live in complex moral worlds, not as inert objects surrounded by abstract human creations, but as mutually constitutive of one another. Until a deep understanding of such worlds becomes infrastructural to understanding of how 'addiction' works and how drugs treating addiction are *actually* used, we will continue to miss the key issues in the lives we hope to improve. If there is a path to a successful 'drug treatment' strategy anywhere in the world, its beginning will be in taking drug users seriously as *an* expert in their own lives. Its implementation will be in codesigning services *after* taking such expertise seriously. Finally, its success will be measured through the feedback of the participants finding such a system meaningful and useful in their own lives. With respect to that lofty goal, I, like all ethnographers, am little more than a credentialed intermediary.

Acknowledgements

Most of all, I want to express my gratitude for the dozens of people with direct experience of heroin and methadone over the years, who generously took time out of difficult lives, to share insights. I also want to express my gratitude to my coworkers over the years, especially to Brendan Bartley, Catherine Comiskey, and Fiona O'Reilly. Versions of this paper were presented at the Meetings of the American Anthropological Association, the Department Seminar at Maynooth University and the Scottish Training in Anthropological Research Retreat.

Financial support

Funding for the research undergirding these reflections came from the Canal Area Group Local Drugs Task Force (2007–2008); the Ballyfermot Drugs Task Force and the Ballyfermot Area Partnership for work on Life Histories of Drug Users in Ballyfermot, Dublin, Ireland (1998–1999); and the Combat Poverty and The Katherine Howard Foundation for comparative ethnographic work on social exclusion and the experience of structural violence in two sites in Ireland (1997–1999). The author gratefully acknowledges their support.

Conflict of interest

The author has no conflicts of interest to disclose.

Ethical standards

The author asserts that all procedures contributing to the work comply with the ethical standards of the relevant national and institutional committee on human experimentation with the Helsinki Declaration of 1975, as revised in 2008 and the ethical principles underlying Ethnographic Research in the discipline of Anthropology. The study protocols were approved by the institutional review board of the participating institutions. Informed consent and permission for anonymous quoting were obtained from all participants. All names used in the work are pseudonyms, and identities have been further obscured by changing other contextual details.

References

- Agar M, Reisinger HS (2002a). A tale of two policies: the French connection, methadone, and heroin epidemics. *Culture, Medicine and Psychiatry* 26, 371–396.
- Agar M, Reisinger HS (2002b). A heroin epidemic at the intersection of histories: the 1960s epidemic among African Americans in Baltimore. *Medical Anthropology* 21, 189–230.

- Alexander B** (2008). *The Globalization of Addiction: A study in Poverty of Spirit*. Oxford University Press: Oxford.
- Butler S** (2002). The making of the methadone protocol: the Irish system? *Drugs: Education, Prevention and Policy* **9**, 311–324.
- Courtwright DT** (2001). *Forces of Habit: Drugs and the Making of the Modern World*. Harvard University Press: Cambridge.
- Cullen W, Bury G, Barry J, O’Kelly F** (2000). Drug users attending general practice in Eastern Regional Health Authority (ERHA) area. *Irish Medical Journal* **93**, 214–217.
- Delargy I, Crowley D, Van Hout MC** (2019). Twenty years of the methadone treatment protocol in Ireland: reflections on the role of general practice. *Harm Reduction Journal* **16**, 5. doi:10.1186/s12954-018-0272-4.
- Dole V** (1991). Interim methadone clinics: an undervalued approach. *American Journal of Public Health* **18**, 1111–1112.
- Dole VP, Nyswander ME** (1967). Heroin addiction – a metabolic disease. *Archives of Internal Medicine* **120**, 19–24.
- Dole VP, Nyswander ME** (1976). Methadone maintenance treatment: a 10-year perspective. *Journal of the American Medical Association* **235**, 2117–2119.
- Fernandez J** (1986). *Persuasions and Performances: The Play of Tropes in Culture*. Indiana University: Bloomington.
- Foucault M** (2001) (1970). *The Order of Things*. Routledge: New York.
- Gossop M, Marsden J, Stewart D, Lehmann P, Edwards C, Wilson A, Segar G** (1998). Substance use, health and social problems of service users at 54 drug treatment agencies: intake data from the national treatment outcome research study. *The British Journal of Psychiatry* **173**, 166–171.
- Hatcher AE, Mendoza S, Hansen H** (2018). At the expense of a life: race, class, and the meaning of buprenorphine in pharmaceuticalized “care”. *Journal Substance Use & Misuse* **53**, 301–310.
- Jenkins JH** (editor) (2010). *Pharmaceutical Self: The Global Shaping of Experience in an Age of Psychopharmacology*. School for Advanced Research Press: Santa Fe, NM.
- Marsch, LA** (1998) The efficacy of methadone maintenance interventions in reducing illicit opiate use, HIV risk behavior and criminality: a meta-analysis. *Addiction* **93**(4), 515–532.
- Negroponte M** (2005). Methodonia (<http://www.hbo.com/docs/programs/methadonia/index.html>). Accessed 2008.
- Netherland J, Hansen H** (2017). White opioids: pharmaceutical race and the war on drugs that wasn’t. *Biosocieties* **12**, 217–238.
- O’Reilly F, Saris AJ** (2010) *A Dizzying Array of Substances: An Ethnographic Study of Drug Use in the Canal Communities*. Dublin: The Canal Communities Local Drugs Task Force.
- Raikhel E, Garriot W** (editors) (2013). *Addiction Trajectories*. Duke University Press: Durham and London.
- Rooney S, Kelly G, Bamford L, Sloan D, O’Connor JJ** (1999). Co-abuse of opiates and benzodiazepines. *Irish Journal of Medical Science* **168**, 36–41.
- Sardowsky J** (1999). *Imperial Bedlam. Institutions of Madness in Colonial Southwest Nigeria*. University of California Press: Berkeley, CA.
- Saris AJ** (1998). *Short Report: Life Histories of Drug Users in Ballyfermot and Cherry Orchard*. Ballyfermot Area Partnership: Maynooth, Ireland.
- Saris AJ** (1999). *Final Report: Life Histories of Drug Users and Drug Use in the Community in Ballyfermot and Cherry Orchard*. Ballyfermot Area Partnership: Maynooth, Ireland.
- Saris AJ** (2005). *Final Report: A Network Analysis Study, With An In-Depth Interview Component Investigating Opiate Use in Ireland on a Nationwide Basis*. National Advisory Committee on Drugs (NACD): Dublin.
- Saris AJ** (2006). Estimating the prevalence of opiate use in Ireland and the implications for the criminal justice system. *Probation Journal* **54**, 22–35.
- Saris AJ** (2007). Culture, inequality, and the bureaucratic imagination: states and subjects for a new millennium. *Irish Journal of Anthropology* **10**, 54–60.
- Saris AJ** (2008). An uncertain dominion: Irish psychiatry, methadone, and the treatment of opiate abuse. *Culture, Medicine, and Psychiatry* **32**, 239–257.
- Saris AJ** (n.d). Growing appetites and hungry subjects: addicts, the undead, and the long arc of theory in western social science (in press).
- Saris AJ** (2014). Pharmacology. In *Encyclopedia of Health, Illness, Behavior, and Society* (ed. W. C. Cockerham, R. Dingwall and S. Quah), pp. 1857–1860. Wiley-Blackwell: New York.
- Saris AJ** (2011). The addicted self and the pharmaceutical self: ecologies of will, information, and power in junkies, addicts, and patients. In *The Pharmaceutical Self: The Global Shaping of Experience in an Age of Psychopharmacology* (ed. J. H. Jenkins), pp. 209–229. School for Advanced Research on the Human Experience (SAR): Santa Fe, NM.
- Saris AJ** (2013). Committed to will: what’s at stake for anthropology in addiction. In *Addiction Trajectories* (ed. E. Raikhel and W. Garriot), pp. 263–283. Duke University Press: Durham, NC .
- Simonsen KS, Hanse AC, Rollman D, Kringsholm B, Muller IB, Johansen SS, Linnet K** (2011). Drug-related death in Denmark in 2007. *Danish Medical Bulletin* **58**, 1–5.
- Stentoft AB, Teige P, Holmgren E, Vuori J, Kristinsson AC, Hansen G, Ceder G, Wethe G, Rollmann D** (2006). Fatal poisoning in Nordic drug addicts in 2002. *Forensic Science International* **160**, 148–156.
- Street A** (2014). *Biomedicine in an Unstable Place: Infrastructure and Personhood in a Papua New Guinean Hospital*. Duke University Press: Durham, NC.
- van der Geest S, Whyte SR, Hardon A** (1996). The anthropology of pharmaceuticals: a biographical approach. *Annual Review of Anthropology* **25**, 153–178.