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Suicides, poisons and the materially possible: The positive ambivalence of means restriction and critical–critical global health

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Abstract

Developing an object-oriented perspective on suicide, in this article the author challenges critical global health scholarship and sociological theories of ambivalence by showing how a focus on 'materially possible' suicide prevention can offer culturally relevant solutions to a suicide epidemic in a resource-poor setting. Taking the example of pesticide regulation in Sri Lanka, he demonstrates why, in theoretical terms, banning toxic pesticides has coherence in a local poison complex that renders suicide available to people as a cultural practice. While writers in the field of critical global health have been suspicious of 'magic-bullet' interventions such as means restriction because such policies reportedly overlook the social complexity of problems such as suicide, the author argues that what is materially possible is often of merit because it renders graspable an otherwise deeply contingent and variegated problem. He further argues that critical global health can view the ambivalent costs and benefits of materially possible, magic-bullet interventions as a positive rather than negative offshoot of global health.

Keywords

ambivalence, critical global health, object ontology, poison, suicide prevention

Introduction

Nets beneath bridges, high fences along overpasses, sales restrictions on medicines and bans placed on highly toxic agrochemicals – all are examples of 'means restriction' (MR), suicide prevention through the regulation of everyday places and objects. In this

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article, I investigate what happens when suicide MR programmes reframe the material world as one of ever-present suicide risk, shifting the locus of responsibility for suicide prevention from social and medical professionals to government regulators. The argument made by MR advocates is that material interventions offer a pragmatic and affordable alternative to psychosocial interventions. This is especially relevant in rural Asia where the majority of the world's suicides are found and where psychosocial programmes would be expensive and difficult to implement (Eddleston and Bateman, 2011; Miller and Bhalla, 2010; Yip, 2008). Faced not only with continuing uncertainty around what all the available theories of suicide might add up to in terms of designing prevention programmes, public health must still 'develop strategies that will benefit most lives in an effective and measurable way' (Yip et al., 2012: 2393). In pursuit of pragmatic responses to this challenge, I argue that MR programmes have redefined suicide as a *behaviour involving a lapse of people acting 'responsibly' within their material culture* – an approach with implications both for social theories of suicide and suicide prevention, and global health interventions more broadly.

If, as witnessed in the focus of most psychological and sociological research since the 18th century, the study of suicide was once centrally concerned with what made people *unhappy* (Fitzpatrick et al., 2014; Staples & Widger, 2012; White et al. 2015; Widger, 2015c),[1] MR deals with what makes people *unsafe*. In this article, I explore the relationship between local practices of suicide and suicide prevention efforts in Sri Lanka – a country that has been the focus of large-scale MR programmes for several years. I develop a theoretically challenging perspective by paying attention to what makes suicide *materially* 'thick' (see Geertz, 1973; Owens and Lambert, 2012). To do so, I combine ethnographic materials collected from Madampe, a peri-urban locale in north-west Sri Lanka, with critical readings of the scientific and medical literature produced on suicide and suicide prevention in Sri Lanka since the 1990s.

During my main fieldwork trip to Madampe between 2004 and 2006, I carried out a range of qualitative and quantitative studies in two villages as well as two local schools, hospitals, the police station, a coroner's court, and a mental health clinic. Work across those sites included in-depth interviews with people who had deliberately poisoned themselves, follow-up interviews both with their families and friends, and with health and social professionals, as well as participant-observation in processes of everyday life at village level (Widger, 2015c). My principal finding was that self-harm and suicide emerged from disputes between kin, both in response to, and as a form of, relational violence such as quarrels, antagonism, and mental and physical abuse between married couples, parents, children and certain extended kin. Informants who had swallowed poison indicated they had not meant their act to result in death, at least as a single and final outcome, but instead to achieve a clear social end, such as changing specific others' thoughts or behaviours (ibid.). They were 'dialogue suicides' (Marecek and Senadheera, 2012) that arose as acts of communication – social *practices* (Widger, 2015c; Cohn, 2014) that sought to 'place the idea of death into other people's minds' (Widger, 2015c: 63) and hence bring about resolve or transformation in the relational violence preceding them.

I have described this sociocultural context of suicide elsewhere (Widger, 2012b, 2012a, 2014, 2015a, 2015b, 2015c), and my intention in this article is to develop a very different perspective on the issue. Taking my cue from material culture

studies, in particular theorizations of person–thing entanglement, I develop an object-oriented approach that seeks to understand suicidal practice from the vantage point of poison – a substance with significant biomoral qualities that renders dangerous chemicals a materially possible means of performing suicide in Madampe. The article begins with a brief introduction to the national suicide rate in Sri Lanka and a discussion of the centrality of poison in suicidal practice, rendering suicide materially possible. I then argue that prevention strategies around self-inflicted death become likewise materially possible thanks to the presence of poison before going on to introduce some of the ethical problems this raises. In the final section of the article, I challenge some of the assumptions made by critical global health scholarship, including, especially, its rejection of 'magic bullet' interventions. I argue that what is materially possible and apparently 'simple' is often of merit because it renders graspable, in a Heideggerian sense, an otherwise deeply contingent and variegated problem. I further argue for a critical–critical (Geertz, 1984) global health view in which the ambivalent costs and benefits of materially possible, magic-bullet interventions may be positive rather than invariably negative offshoots of global health.

The poison complex

Between the 1950s and 1996, the combined effects of post-colonial transition, entry into the global neoliberal economy, growing political violence and a long-running social practice of responding to relational crises through self-poisoning, helped to push suicide rates in Sri Lanka to among the highest in the world (Widger, 2014). In response, then President of Sri Lanka Chandrika Bandaranaike Kumaratunga appointed a commission to investigate the problem. The commission concluded that the most popular means of suicide was pesticide self-poisoning and policies were developed to better regulate their import and use (Pearson et al., 2015). Over the decades to follow, the regulation of pesticides for the purpose of suicide prevention took three forms: (1) import and sales bans on the most toxic chemicals; (2) reformulation to lessen toxicity to humans; and (3) the promotion of pesticide safe storage in the home and field (Gunnell et al., 2007; Hawton et al., 2009; Konradsen et al., 2007; Roberts et al., 2003; Wilks et al., 2008). While the impacts of reformulation and safe storage projects were apparently minimal (Pearson et al., 2017), the result of pesticide bans was a dramatic fall in the suicide rate, from around 47 per 100,000 at its peak in 1996 to around 23 per 100,000 by 2014 (Knipe et al., 2014). However, over the same period the rate of non-lethal self-poisoning, mainly by medicinal drug overdose, *increased* in line with the fall (De Silva et al., 2012). Pesticide regulations, it seems, had done little to prevent people from *attempting* to kill themselves, even if they did reduce the fatality of such practices. And, perhaps more importantly, there had been no methods substitution, where other lethal means of suicide replaced the lethal pesticides were no longer available. If substitution *had* taken place, it had been with the relatively benign medical drugs, fatalities from which were significantly lower than they were from pesticides (Eddleston and Bateman, 2011).

I have previously drawn two conclusions from this. The first is that *poisons* have cultural resonance that make them suitable for use in self-harming and suicidal practice – the use of poison in this way was not merely one of convenience, as MR advocates tend to

stress, but informed by the wider significance of poison in social life (Widger, 2015b). The second is that, as a learnt practice, suicide in Madampe develops in conjunction with the acquisition of certain kinds of knowledge around the meanings of poison (Widger, ibid.). Local lexicons of suicidal practice provided an index of this. In spoken Sinhala, there is no direct equivalent of the English term 'suicide'. However, in Madampe, the phrase *mama vaha bonnava* ('I will drink poison') – sometimes *mama kaneru bonnava* ('I will drink *kaneru* [seeds of the yellow oleander]') or *mama Panadol bonnava* ('I will drink Panadol') – was routinely used by people when making suicide threats, and similar reference to *vaha* was also routinely made when people spoke about others' suicidal practices. On one level, and in common with MR advocates, we could thus propose a reductive argument that the preference to speak of 'poison drinking' instead of some other method or way of describing self-inflicted death simply reflects the widespread occurrence of self-poisoning in Sri Lanka. Yet the word and the phraseology within which *vaha* sits, such as 'I will drink poison', conveys a fundamental ambiguity between the language and practice of suicide. The threat to drink poison leaves in doubt the intentions of the person, be they to die and/or to affect some kind of social outcome (Widger, 2015c: 62–67). This is an important component of Sinhala Buddhist suicidal practice as it helps to disavow conscious intent and danger of incurring demerit (*pav*) (Marecek and Senadheera, 2012).

In contrast, during my fieldwork I rarely heard people referring to 'hanging' (*ellie miya yama*; literally 'using the rope') when talking about suicidal practices of any kind. This omission points to a difference in how people understood poison and hanging as distinct kinds of social practice, and the significance of the poison complex as I describe it in this article. As I have elaborated elsewhere (Widger, 2015c), poison drinking, which usually takes place in front of other people, forms an active engagement with the world of relational problems that people understand to be susceptible to change through suicidal responses. Hanging, by contrast, takes place in the absence of other people, as a means of escape from problems beyond the suicidal person's ability to control. Thus, the use of hanging or poison as suicide methods indicate particular pathways to suicide and its intended outcomes (i.e. to change the world or to escape from the world). To this, I would add that poison and hanging exist in the popular imaginary on very different levels, the one forming a complex with deep historical roots and a wide set of contemporary associated practices, the other existing in isolation with 'suicides of escape' and lacking the cultural elaboration of poison.

I have called the linguistic, social, emotional, spatial, and material practices clustering around pesticide suicides a 'poison complex' (Widger, 2015b), and argued that the high rate of pesticide suicides found in Sri Lanka is a function of this complex, rather than a straightforward reflection of the widespread availability of poisons in Sri Lanka's rural communities. Rather than rehearsing these arguments again here, I seek to move the discussion forward to a critical analysis of how MR relates to Sinhala poison practices at two levels. The first is at the level of the object, which is to say poisons in their guise as pesticides, and the second is at the level of ethics and the implications of adopting an object-oriented approach to suicide.

Within the poison complex, poison as a suicide *method* is not 'analytically separable' (Henare et al., 2007) from poison as a suicide *cause*. Poison in Sri Lanka is a bio-moral substance, existing across multiple social and cultural registers as a biological harm,

relational mode and statement concerning the moral qualities of persons. Poisons are widely understood as substances that animate and end social life – poisons have productive and destructive vibrancy (Arnold, 2016). In Madampe, people say that poison manifests between people because of jealousy, envy, anger and rage. Each leads to kinds of other-poisoning, while blame and shame leads to self-poisoning. Via 'eye poison' (*aes vaha*) and 'mouth poison' (*kata vaha*), poison transfers from the person who longs for certain possessions to their current owners (Chapin, 2014: 61–66). Similarly, the performance of 'poison poems' (*vas kavi*) can harm the enemies of those who sing them (Obeyesekere, 1975: 4). Beyond this, poison flows in everyday contexts of love (*ādara*) and anger (*kopeya*). Parents worry that unmarried daughters' food or drink might be 'poisoned' by a love potion administered by some admirer, leading her to elope; those with enemies worry their domestic well or food stores might be poisoned out of retribution or spite.

For my informants, the consumption of poison was an appropriate response to processes of blame and shame that accompanied relational troubles. If one person shamed another, swallowing poison could help to remove shame from the self and transfer it to the person who has caused the shame to occur (Marecek, 1998; Marecek and Senadheera, 2012). Pesticide self-poisoning, like eye poison, mouth poison and poison poems existed as a social relationship defined by the transference of substances between people. Within the poison complex, motive and means for suicide are often indistinguishable since both take substantive form and have the potential to generate as well as to destroy social relationships. For this reason, I argue there is nothing coincidental about the fact that poison comprises by far the most popular means of self-harm and suicide in Sri Lanka. The very nature of the most common causes of suicide, which within the poison complex are poisoned social relationships, assume the choice to swallow poison. Poison is thus an ever-present danger in social life and the risk of being poisoned may come from either the actions of others or oneself. Drawing from his Telugu (south Indian) ethnography, Staples (2012) argues that the coalescence of motives and means in this way can be understood as giving rise to a suicide 'niche', within which suicidal practices become almost inevitable and can appear at epidemic proportions as people become part of, and are shaped to respond in certain ways due to, the niche. I push Staples' argument further, to suggest that suicide becomes possible as a social practice only when the material conditions of poison (that is – poison across social, moral, and chemical registers) configure in specific kinds of ways, during moments of relational crisis (Widger, 2015b). Suicide thus becomes one kind of interaction within the poison complex, which redirects the transfer of poison into one's own body. Thus, my central proposition is that we should not relegate suicide methods to an afterthought, which would allow us simply to conclude that 'people in Sri Lanka poison themselves because poisons are readily available to do so.' I ask instead, 'how and to what degree might the artefacts that so often occasion these moments [of suicide] be engaged with on their own terms?' (Henare et al., 2007).

An object-oriented suicidology

Suicide in narrative form develops via linear temporality. Within suicidology, the normative process of suicide is assumed to involve some kind of precursor like a stressful life

event, followed by the decision to commit suicide, the identification and preparation of a method (for example, hoarding pills) and subsequently the act itself (for examples, see Heikkinen et al., 1992; Oravecz and Moore, 2006). Within this process, suicide researchers are interested in why people choose one means of suicide over others. The most common approach to means-problematization in suicidology has taken the form of explaining gender, geographical and availability differences. Examples include why men and women appear to use more and less fatal means, respectively (Elnour and Harrison, 2008; Varnik et al., 2008); why firearms prevail in the USA and pesticides prevail in South Asia (Yip et al., 2012); and why suicide rates decline when access to popular suicide means is restricted (Daigle, 2005). The material means of suicide have thus received attention at a *representational* level. For example, adopting a representational approach to 'protest' suicides – suicides performed publicly, or with the explicit intention of communicating with others, similar to those found in Madampe – Andriolo (2006: 102) calls the act 'dying with a message, for a message, and of a message'. Like Andriolo, many suicidologists, including those exploring Sri Lankan pesticide suicides, have recognized that meanings mediate the relationship between people and the means of their suicide. They have also recognized that the meanings of means matter. But, despite this interest in means, the *things* used in suicide have not counted as literal *causes* of suicide, in an *agentive* sense.

Can *things* cause suicides? A response to this question depends on where we locate the agency of the thing – in the thing itself, in the person using the thing, or in the interactions that take place between thing and person. To draw attention to the mediation of agency between things and persons that he describes as 'actants', Latour (1999) discusses the contrasting positions of pro- and anti-gun lobbies in the United States. *Guns kill people* and *people kill people* are the arguments made by those who support or reject gun regulation, respectively. In the first view, guns have the capacity to turn good people bad, while in the second view, the gun is simply a conduit for the proclivities of bad people to do bad things with guns. Latour asks, and he might as well have been talking about poisons, 'Is the gun no more than a mediating technology?' (p. 178). Latour argues that guns are different when left alone on a table compared to when held in the hand; equally, people are different when they are holding a gun compared to when they are not. The 'materialist' *guns kill people* and the 'sociological' *people kill people* positions of anti/pro gun lobbies make an error when they assume the existence of the essence of a gun and the essence of people is what is important for deciding what kills people. Instead, Latour proposes that 'the gunman' constitutes a hybrid – a third actant distinguishable from the actants 'gun' and 'man'. 'It is neither people nor guns that kill', Latour suggests. 'Responsibility for action must be shared among the various actants' (p. 180).

Latour's project decentres the human from social analysis and places people within networks of humans and things called actants. It is neither that *poisons poison people* nor that *people poison people* but that *the various actants of self-poisoning poison people*. Thus, a Latourian approach to suicide highlights the possibility of moving beyond representational perspectives on the meanings of suicide means and attempting to 'depict the nonhumanity that flows around but also through humans … to articulate ways in which human being and thinghood overlap' (Bennett, 2004: 349) in suicidal practices. The multiplicity of poisons understood as actants within broad socio-material networks is akin to

what I have called the poison complex, where the human and nonhuman lives of poisons take form across different registers and ontological layers. But the Latourian perspective only takes us so far. By regulating key poisons, MR has a disruptive effect on the poison complex. This disruptive effect helps to understand why the simple act of banning pesticides offers a more radical intervention than would appear to be the case.

Leading many of Sri Lanka's pesticide regulation initiatives has been the South Asian Clinical Toxicology Research Collaboration (SACTRC). In a lecture delivered as part of an introductory class to global health at Copenhagen University, a chief architect of SACTRC, Michael Eddleston, described the rationale underpinning their work (Eddleston, nd). Eddleston noted what he views as the important cultural meanings attached to suicide in Sri Lanka, which includes the desire to communicate with others through self-harm, and his objective to make this form of communication *safe*. By removing or reducing the human toxicity of pesticides, SACTRC's aim is to allow people to continue consuming poisons as an act of communication without risk of death. Eddleston's point is that if the world only contained pesticides of low toxicity, there would be no need to *prevent* social practices like pesticide self-poisoning. Thus, Eddleston accepts that poisons and persons are responsible for self-poisoning, but trying to prevent suicide at the level of persons is a significantly greater challenge than it is at the level of poisons. SACTRC's overall aim, then, is to limit the capacity of poisons and people to come together to form a 'network of actants' in Latourian terms, rather than the capacity of people to poison.

In *Being and Time*, Martin Heidegger (1996) sought to break the hold of human-centric thought in Western philosophy by showing how nonhuman objects related to and among themselves. Heidegger's famous discussion of the broken hammer, in which he distinguishes between the *readiness-to-hand* and *presence-at-hand* of operational tools and broken tools, is especially useful for my argument here. Heidegger argued that operational tools display only what he called a readiness-to-hand – a surface reality premised on their utilitarian function and which obscured the ontological status of the object. The utilitarian function, Heidegger claimed, gave the false impression that objects such as hammers owed their being to humans, whose ability to animate objects was the sole source of objects' meaning. In contrast, broken tools display a presence-to-hand – a deeper and usually obscured ontology that only reveals itself when tools are no longer fit for normal use. Discarded and apparently useless without the intervention of human agency, the ontological solidity of the thing becomes apparent thanks to its continued existence in the world beyond humans.

Graham Harman (2002) developed his object-oriented philosophy from Heidegger's observation that broken tools thus display 'the true chasm in ontology lies not between humans and the world, but between *objects and relations*' (p. 2, emphasis in original). For Harman, as for Heidegger, an object 'is neither a phenomenon nor any set of phenomena, but a real force throwing its weight around in the world and demanding to be taken seriously' (Harman, 2005: 17). What this means is that objects do not owe the totality of their existence to cultural representations, but to object-generated representations. Objects have ontologies of their own to which humans can but only pay attention. In similar terms, Jane Bennett (2004: 348) has argued 'there is an existence peculiar to a thing that is irreducible to the thing's imbrication with human subjectivity.' Again, what

this implies is a need to appreciate more fully the ontological individuality of objects that do not depend on human attention to render meaningful.

Object-oriented approaches to suicide are useful for understanding how poisons are more than methods but also causes, including how pesticides have significance beyond their sheer toxicity. The apparent readiness-to-hand of pesticides – the simple fact of poisons being available to be used in moments of crisis – obscures the presence-at-hand of pesticides – what makes them suitable for use at all, which remains hidden until they no longer are there to be used. Within the poison complex, poisons like pesticides, *kaneru*, and Panadol, which are most widely referred to and used, exert force across multiple levels – linguistic, emotional and moral. The introduction of pesticide regulations 'breaks' the tool, revealing the 'tool-being' (Harman, 2002) of pesticides as causes of suicides. Although beginning from a very different starting point, suicide MR programmes have effectively developed an object-oriented approach to suicide in Sri Lanka. MR tackles a core element of the poison complex that makes suicide *materially possible* in an ontological sense – removing one-half of the poison/person dyad, and so preventing the generation of the third actant, the suicidal poison-person.

The ethics of materially possible prevention

What does it mean to redefine the causes of suicide in material terms? SACTRC's search for materially possible prevention raises ethical dilemmas.[2] SACTRC's critics have argued that MR approaches gloss over the 'fundamental' causes of suicide in favour of 'quick win' interventions, leaving suicidal people untreated and uncared for and ultimately still in danger of suicide from other means (Florentine and Crane, 2010, 2011). MR may have tackled the materially possible, the argument goes, but leaves out the difficult problem of psychosocial states, which exists on a non-material plane. In support of SACTRC, I would counter that this criticism emerges from the person-centric perspective on suicide that places the choice to use certain means *after* the decision to attempt suicide – a Cartesian split that suicidology establishes between a 'suicidal mind' (Shneidman, 1998) that bids a body to injure itself (Orbach, 2003). The object-oriented perspective places means alongside, and within, the category of causes. Addressing access to suicide methods also addresses the causes of suicide because 'methods' and 'causes' are part of the same poison complex. Limiting or removing access to pesticides disrupts the poison complex, which also disrupts the causes of suicide.

A more difficult criticism stems from the idea that MR accepts people have the right to express themselves as they choose (including through self-harm), as well as the argument that societies have a responsibility to protect those who are at harm not only from themselves *but also* from dangers in their environment. Such a view underpins much of the literature on suicide MR, which argues that people who self-harm often underestimate the lethality of their chosen means and die *accidentally*; this is especially true of pesticide poisonings (Eddleston and Phillips, 2004). In their classic study of risk and culture, Douglas and Wildavsky (1982) pre-empted this when they argued – with an apparent sense of disapproval – that by valuing all material dangers in terms of involuntary as opposed to voluntary actions, those who design, plan and sell things that could be used for suicide would always be culpable for those deaths. 'If the pattern of values were

to change in that direction', they wrote, 'all suicides … would be owed redress by the institutions which drive them to their deed. All law would be compensatory law: individuals could be shown to have an unlimited right to be compensated for all losses, however incurred' (pp. 20–21).

MR reimagines the ways in which persons interact with material dangers, introducing the notion of responsibility. In this sense, MR invites the same kinds of criticisms that have been made against harm reduction policies more generally, which also distinguish between responsible and irresponsible modes of interaction with harmful things in the environment. For example, since the 1970s, health risks from needle sharing have been increasingly combated through programmes distributing free needles to drug users (Bennett, 1998; Inciardi and Harrison, 2000; Nichter, 2003). Campbell and Shaw (2008) argue that the focus on safe needle use encouraged drug users to become more 'self-governing' vis. drug material culture – to become 'ethical subjects' who despite continuing to break the law, could now do so responsibly. More recently, nudge interventions have been likewise promoted as solutions to growing levels of obesity and heart disease (Thaler and Sunstein, 2008). An example includes encouraging shoppers to engage in responsible impulse buying by switching the range of snacks displayed at supermarket checkouts from chocolates to fruits. The aim of behavioural modification programmes is thus never to tackle the underpinning motivation – be it self-harm, snacking, or getting high – but rather to make those behaviours safe through responsibilization of the subject.

With respect to MR, it was precisely due to the *failure* of Sri Lankan farmers to act 'responsibly' towards pesticides that demonstrated the need for pesticide regulations. SACTRC ran the world's largest trial of pesticide storage boxes in Sri Lanka, which previous research, by the agrochemical industry and the WHO, had suggested was an effective suicide prevention measure (Konradsen et al., 2007). The SACTRC study showed that farmers 'failed' to keep pesticides consistently locked up and no statistical difference was found in suicide rates between communities that had been given storage boxes and control communities that had not received boxes (Pearson et al., 2017). The authors of the final report argued that:

> Improved storage is a very active form of prevention, requiring persistent and lifelong effort by individuals and families to store pesticides away after purchase and use, to keep key(s) hidden, to replace locks when damaged or the key lost, and to replace damaged containers. (p. 1870)

Pesticide suicides, the authors concluded, could only be managed if the chemicals themselves were no longer ready to hand – if they were no longer active elements of what I have called the poison complex – as farmers themselves would not self-regulate the complex.

Why efforts to encourage farmers to self-regulate pesticide access seemingly 'failed' is beyond the scope of this article as this would require detailed examination of how pesticides are purchased, used and stored, and of local risks cultures (for comparative studies, see Barraza et al., 2011; Blok et al., 2008; Rao et al., 2006). Beginning with the premise of 'failure' would be clearly wrong, however, as the push to give farmers responsibility for making safe self-harm decisions ignores the wider economic and political

contexts of suicide in Sri Lanka, including how the agrochemical industry has treated the global south as a market for its most toxic products banned in countries in the global north. It is worth noting that the agrochemical industry itself has heavily promoted safe storage as an alternative to regulation – a strategy the SACTRC study demonstratively proved ineffective. As Fortun (2014) has claimed of Latourian actor-network approaches, establishing social and political equivalence between human and nonhuman actors within the poison complex risks obscuring the historical processes that lead some poisons to be more ready to hand than others in the environment.

Critical–critical global health and the possibilities of ambivalence

Should we be wary of the ethical ambivalences of MR as a suicide prevention strategy? In the final section of the article, I trace the implications of my argument for the study of ambivalent objects in global health more broadly. To do this, I place MR within the wider class of 'magic bullet' global health interventions. Advocates argue magic-bullet approaches deploy practical solutions delivering the best outcomes for the majority (Howitt et al., 2012) measured using humanitarian metrics such as 'lives saved' or 'DALYs (disability-adjusted life years) reduced'. However, critics argue that magic-bullet approaches only target the biological causes of poor health and overlook social, economic and political determinants (Biehl and Petryna, 2013; Janes and Corbett, 2009; Storeng and Mishra, 2014). Often delivered via philanthropic, 'pro-poor' private health options, or public–private partnerships, they can also circumvent and undermine democratic structures and processes, including patients' involvement in their own diagnosis and treatment pathways (Biehl and Moran-Thomas, 2009; Biehl and Petryna, 2013; Birn, 2014a, 2014b; Ecks and Harper, 2013; Janes and Corbett, 2009; McCoy et al., 2009; Pfeiffer and Chapman, 2010). As other contributors to this special issue suggest, this is one way the technologies, drugs and devices that comprise magic bullets in global health come to acquire an ambivalent status. On one side, they offer what appear to be materially possible interventions and, on another side, their practicability is achieved only *because* they reduce human health and illness to a material – which is to say biological – problem. It has only been by giving up on social complexity, the argument goes, that the basic biological parameters of disease can be addressed. To reintroduce contextual and conditional factors, critical global health scholars have argued for greater attention to be paid to 'social structural influences and social, cultural, political and economic dimensions … determining health status and outcomes' (Lambert, 2006: 2642).

Although I have raised serious objections to MR in the guise of safe storage, the case of MR in the guise of regulations suggests that we should be cautious about how far we take these criticisms. It is as if what becomes *materially possible* in global health by virtue of a simple materiality, must inevitably be considered devoid of social and cultural significance as a valid response to poor health. I contend that 'critical' global health scholarship too readily dismisses materially possible interventions. With the case of MR, pesticide regulations not only saved lives but helped to reveal the ontological force of poisons as suicide actants – regulations 'broke' the tool to reveal the presence-at-hand of pesticides and their place in the poison complex. Thus, I advocate a 'critical–critical'

global health that interrogates the ambivalence it has shown towards magic bullet interventions.

Ambivalence has been a subject of social scientific debate for many decades, originating with Merton's (1976) call for a sociology of ambivalence of social roles and culminating in the 1990s with critiques of modernity in which ambivalence was closely associated with risk (Bauman, 1991; Beck, 1994; Giddens, 1990). A feeling of ambivalence about modernity and change was also integral to the writings of Marx, Weber, Durkheim and Freud, among many others (see, e.g., Smart, 1999). Ambivalence was thus a founding concern of sociology and allied sciences, finding expression through the concepts of alienation, anomie, disenchantment and taboo. The overwhelming perspective on ambivalence has been negative – ambivalence has been viewed as an inevitable but undesirable state of modern being that we must all learn to bear. Despite the profusion of healthy living, environmental protection and other wellbeing-promoting information campaigns, people continue to engage in behaviours and lifestyles that are known or suspected to be dangerous to themselves. Yet, alongside this, a large body of health and social scientific scholarship attempts to explain the reasons why people ignore health and environmental warnings and continue to pursue unhealthy lives through the consumption of 'killer commodities' (Singer and Baer, 2009) – carbon intensive travel, foods laden with fat, sugar and salt, and chemically-intensive agriculture and manufacturing processes. This has in turn led to numerous attempts to explain the public's reluctance to place their trust in medical and scientific information, to develop public health interventions to promote better health awareness and to encourage healthy and environmentally sustainable living – a move that returns us to behavioural rather than practice modification programmes. Thus, ambivalence becomes what Beck (1994: 12) calls 'the new disorder of risk civilisation'. Ambivalence is *produced by*, not *productive of*, the push to inform the public about health and to tackle unhealthy and unsustainable behaviour. As both contradictory information about health risk and harm, and contradictory medical and scientific expertise grows with it, so uncertainties about who and what to believe spiral out of control. For Giddens (1990: 139), 'feelings of ontological security and existential anxiety … co-exist in ambivalence'. Even though significantly improved health outcomes and advanced life expectancy accompany modernity, it simultaneously produces a number of chronic health problems and environmental risks. To live as healthy moderns, paradoxically, may simultaneously mean living unhealthily.

Ambivalence has received less attention in anthropology although, somewhat akin to Merton, Radcliffe-Brown (1940) turned to a concept of ambivalence to explain the so-called 'joking relationship' found across diverse kinship systems, where ambiguities in social role are managed through the designation of formal informalities between specific kin. Ambivalence has also been identified as a major aspect of ritual processes, during which participants are strung between contradictory roles and worlds (Turner, 1969). Douglas (1966) deployed a concept of ambivalence in her discussion of how classificatory problems generate cognitive discomfort and ambiguity towards things – which come to be viewed as dirty as a result. In all examples, anthropologists have understood ambivalence in a positive sense. For Radcliffe-Brown (1940), ambivalence in kin relationships helps to manage risk of conflict. For Turner (1969), ambivalence is productive of new social roles for the initiated. For Douglas (1966), the classification of dirt is an

attempt to place order on the world. Importantly, then, anthropologists have tended not to consider ambivalence a problem but instead a desired state of social and ritual practice. Contra sociology, ambivalence for anthropologists has been viewed as a necessary corollary of social order.

What are we to make of these two views of ambivalence for magic-bullet interventions in global health? Following the sociologists, we might conclude that the objects of global health produce uncertainty, inaction and ultimately disbelief or mistrust in interventions. Critics of MR adopt this view. But, following the anthropologists, we might conclude that ambivalence is precisely what allows change to occur: ambivalence leads to critique, the development of alternative perspectives and ways of reimagining debates that produce ambivalence itself. Not only can we learn to live with ambivalence but we may find that ambivalence offers a fresh and productive way of understanding health challenges in the contemporary world. Ambivalence becomes a valuable space for reflection. When we re-read MR through this kind of frame, ethical possibilities compensate for any ethical shortcomings (e.g. the focus on 'irresponsible' farmers). An object-orientation does not reduce suicide to bio-material simplicity, but allows for the re-imagination of suicide as a social practice within a poison complex.

Conclusion

In this article, I have sought to develop an object-oriented perspective on suicide. Beginning with the contention that neither poisons poison people nor people poison people, I have shown how better regulation of poisons in Sri Lanka has reduced the suicide rate overall precisely because of its coherence with the poison complex that produces suicidal practices. For my informants in Madampe, poison was a biomoral substance that manifested within and between persons, understood simultaneously as both a motive and a means of suicide. Disrupting the normative linear temporal model of the suicide process that places motives as prior to means, the model of the poison complex that I propose illustrates how poison is always a part of the decision to engage in self-harm and suicidal practices, and never simply derivative of it. Conversely, materially possible interventions that focus on poison do not ignore the social and cultural determinants of health. At least in the case of pesticide suicides in Sri Lanka, what is materially possible becomes a culturally 'appropriate' intervention. The negative ambivalence seemingly generated by the tendency of global health magic bullets to reduce people to biological problems could also be read more positively as generating space for reflection and critique.

MR in Sri Lanka demonstrates that ambivalence about magic-bullet interventions in global health is not necessarily reason to be suspicious of or to reject the commodities, technologies and substances that comprise them, but rather to interrogate the social and political implications of the ambivalence they generate. These need not be negative in the sociological view but positive in the anthropological view. MR may trade social complexity for a materially simple solution, but far from obscuring or ignoring the social and cultural determinants of health, such interventions can generate new ways of thinking about health and illness. What initially appears to be a negatively ambivalent effect of magic-bullet interventions becomes a positively ambivalent one. By detoxifying the poison complex, MR makes an effective trade-off between 'lives saved' in the short term and long-term psychosocial support.

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Notes

1. Probably the most central assumption in suicidology is that deep-seated mental illness, most usually depression, is linked to suicide, while Durkheim famously wrote of the 'dark cloud' of suicide that hung over Europe – a phrase which evoked, if not expressly sought, a relationship between turbulent social forces and turbulent minds.
2. I lack space to discuss wider literatures on the ethics of suicide. Suffice to say, it is an active field (see, e.g., Fairbairn, 1995).

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