A Wager on the Future: A Practicable Response to HIV Pre-Exposure
Prophylaxis (PrEP) and the stubborn fact of process
Marsha Rosengarten, Department of Sociology, Goldsmiths University of London, UK
Dean Murphy, Department of Gender and Cultural Studies, University of Sydney,
Australia.
PLEASE DO NOT CITE WITHOUT PERMISSION FROM THE AUTHORS

A Wager on the Future: A Practicable Response to HIV Pre-Exposure Prophylaxis (PrEP)

and the stubborn fact of process.

Abstract

In this article we focus on public health's wager on the social implications of a daily antiretroviral

pill to prevent HIV, referred to as PrEP (pre-exposure prophylaxis). The wager is shown to rely on

modes of inquiry overly tied to what is known of the present in order to predict the future. Although

such inquiry is not unusual when social research is called upon to assist health policy, predictive

methodologies are unable to appreciate the dynamic and thus indeterminate nature of process. We

ask: what mode of inquiry might practicably appreciate that what happens in the present will have

a bearing on the future, without foreclosing on unknown possibles? Drawing on speculative and

pragmatic philosophy, we reflect on our own qualitative research on PrEP to suggest that

conventional methodological approaches can contribute to the future without seeking to determine

what it will become.

Key words: Speculative and pragmatic research, HIV, Pre-exposure prophylaxis (PrEP), Gay men.

- 2 -

A Wager on the Future: A Practicable Response to HIV Pre-Exposure Prophylaxis (PrEP) and the stubborn fact of process.

In this article we consider the implications and possibilities for social inquiry in response to the prospects of a daily antiretroviral pill to prevent HIV, commonly referred to as PrEP (pre-exposure prophylaxis). PrEP has been heralded as one of the most exciting 'tools' in the history of the epidemic (Cáceres, O'Reilly, Mayer, and Baggaley, 2015; WHO, 2014), not least because it provides protection against HIV when not using condoms. However, PrEP's prospects are inscribed by a prevailing concern that its potentiality for prevention may, paradoxically, undermine what is needed for its success. Foremost amongst the questions that circulate within public health systems grappling with providing PrEP to those at risk of HIV infection are: can those at risk (in particular, gay men, other men who have sex with men (MSM), and people with transgender experience) be trusted to use PrEP correctly?; and, relatedly, could the uptake of PrEP by some people contribute to undermining the safe-sex practices of others *not* taking antiretrovirals, resulting paradoxically in an overall increase in infections? (Holt and Murphy, 2017) Both questions reveal a wager premised not on the biomedical efficacy of PrEP, but on the neoliberal responsibilising of its users as well as those who comprise their sexual communities (Kippax and Stephenson, 2012; Thomann, 2018). In sum, the questions reflect the view that the social dimensions of HIV could result in a proliferation of HIV infections, rather than the reverse.

In what follows, we review this concern for the future and suggest that as a consequence of considerable gain against HIV with the advance of medical treatment, social research has been reduced to a subsidiary contributor to an increasingly medicalized field (Young, Flowers and

McDaid, 2016). With the speculative and pragmatic aim of furnishing a difference to the wager on PrEP, we selectively propose two turning points in the course of the HIV/AIDS epidemic, the second of which includes the recent introduction of PrEP. Drawing on two prominent speculative pragmatic thinkers, Isabelle Stengers and Martin Savransky, we reflect on the problem-making of these two events. We begin with the 'AIDS event,' that presented itself in the early 1980s as the lethal effect of HIV (human immunodeficiency virus) infection. The second event, which we term the 'Antiretroviral event,' is marked by the introduction of effective drug treatments for HIV, starting in the mid-late 1990s. We argue that whereas the first event was taken up by its participants, including social researchers, in a manner that sought to cultivate a future different to the present without presuming to know in advance what might become; the second is shown to be beholden to the predictive demands of the wager on PrEP, and this is reflected in contemporary social research approaches to the epidemic.

By examining some of the presuppositions that inhere in scientific inquiry and, thus, modes of social inquiry now called upon to cohere with these, we depart from the idea that social inquiry is performative of the future (see for example Michael, 2017; Coleman and Tutton, 2017). Rather, we suggest that current modes of social inquiry are overly tied to what has been decided about the present. We find the predominant methods employed when engaging in the wager on PrEP are bound to what is known of the present, as if the latter is a determinant of the future despite what can be perceived of the stubborn and indeterminate nature of process. That is to say, there is underlying presupposition that objects of inquiry can be projected into the future without an appreciation of the unknowable difference that becomes in and of relations with other objects (Savransky, 2017). This brings us to the central question of this article, and one that we believe may

have relevance for other situations of social inquiry: what mode of inquiry might practicably appreciate that what happens in the present will have a bearing on the future, *without foreclosing on unknown possibles?* And, more specifically, in the context of this article: what mode of relating to the present might furnish a response *for* a future different to that suggested by current modes of evaluation? In contemplating these questions, we draw on a qualitative research study of our own that involved the construction of a specified set of constraints to situate PrEP in practice. In contrast to the modes of evidence-making employed for predictive purposes and, precisely because PrEP's future cannot be settled, we propose that a different sort of learning may be possible from conventional modes of social research. In sum, we do not offer an account of what the future will become, but of what may be available in the present for apprehending new possibles.

Events and the Problem-Making of Futurity

When reflecting on what she terms the 'AIDS event' in France prior to the advent of antiretroviral treatments, Isabelle Stengers states that those affected by it made 'the choice of not yielding to the urgency of the strictly medical problem, of resisting demagogic and security-seeking temptations, in other words of trying to actually *pose the problem clearly*' (Stengers, 1997:216.7). Those at the epicenter of the epidemic saw from the outset that conceding to a rampant moralism about their practices and to 'top down' technical public health proposals would not be responsive to the constraints of the situation. As Stengers (1997:217.8) describes, those assembled took into account "the psychological" consequences of legal apparatus that would make them [people] believe that they were protected but did not require their responsibility'. Instead what was required was cultivating a pragmatic response, that is, a response that would be relevant to *living with* the

dynamic dimensions of a disease that could be transmitted through sex and also sharing needles. As a result of an insistent and persuasive advocacy, those in authoritative positions (who included people affected by HIV/AIDS) came to support an approach relevant to the demands of the situation. What eventuated was a mode of engagement that did not submit to a technical definition of infection but, rather, one that actively shaped how 'the technical problem [would] be posed and notably if and how it [would] take into account constraints determined by human values and interests' (Stengers, 1997:217.8).

Although the process was marked by immense difficulties (see for example: Berridge, 1996; Epstein, 1998), an inventive strategy was deployed to cultivate, with remarkable effect, the use of condoms as a protective barrier method for sex in place of what would have otherwise been a public health insistence on abstinence. Based on the concept of 'shared responsibility' between sexual partners for preventing HIV transmission, the practice of using condoms for anal intercourse became known as 'safe[r] sex' (Escoffier, 1998). However, with few exceptions (see for example, Davis, 1996; Kippax and Race, 2003; Kippax, 2017), an explicit account of the important role of the social sciences and humanities in this initial phase has largely been neglected. As we shall go on to illustrate, these disciplines were integral to what Stengers (1997: 216) raises when she refers to 'posing the problem *clearly*'. Indeed if, as Savransky (2018) proposes, 'events' create constraints from which problems are formulated, and as Mariam Motamedi-Fraser (Fraser, 2006: 131) states, '[a]ll those who are touched by an event define and are defined by it,' it can be said that social research became part of a collective practice for *learning* in response to the 'AIDS event.' 1 Amongst the numerous social studies undertaken in this period, many were designed with an attentiveness to new relations forged as a consequence of the event and the manner in which its

emergent problems were to be developed. For the most part, the methods of inquiry involved both quantitative surveys and qualitative interviewing (see for example: Connell et al., 1990; Flowers et al., 1997; Kippax et al., 1990; Hickson et al., 1992). While it can be noted that there were also many directed by problematic moral injunctions, what we wish to foreground is that these early studies were not premised on predicting a future pattern of behaviour, but on what could be learned about the present in order to make a difference to an unknown future. As such, we deduce that their approach to the epidemic relied on an implicit pragmatic trust in the social for the achievement of what the American Pragmatist William James states is a mattered difference (1907/1995). Questions were posed not to determine what would become, but what could be learned about current thinking and sexual practice in order to decipher possibilities for where and how change was needed for those affected. These questions included: how were people incorporating condoms into their sexual practice?; and what experiences might be passed on to others to assist their condom practice? Findings were fed back to advocacy organizations and to public health authorities to inform policy, the delivery of HIV health and welfare services, as well as prevention messaging (see for example, Mc Innes and Murphy, 2011).

Insofar as we can say that the 'AIDS event' and its felt constraints achieved a difference, it must also be stressed that this difference emerged from the manner in which those affected – whether directly by the lethal effects of the virus and/or by what they cognitively came to know of it – chose to participate in a process of learning *for* the future. However, if the epidemic has something to teach us about unknown possibles, it can also be said to show how events and problems are part of a processual world whose stubborn novel-making poses, in turn, new events and problem-making (Savransky, 2018).

The 'Antiretroviral event'

The finding that antiretroviral therapy (ART) was capable of suppressing the virus, changed the truth of the object of HIV in novel ways. More concretely, we can say it changed HIV from a near inevitable terminal infection to a chronic condition in the company of which, a host of unanticipated relations also changed. Here, we may be reminded of James' (1907/1995:77–78) claim: 'Truth happens to an idea. It becomes true, is made by true events.' Further, he adds: 'The practical value of true ideas is thus primarily derived of their objects to us. Their objects are, indeed, not important at all times.' That is to say, the idea of HIV became based on the verity of its consequences when enjoined with the work of ART. HIV clinical practice shifted from what clinicians described as palliative care to a sophisticated engagement with drug therapies. As medical practitioners acquired new knowledge about drugs and their effects, their patients also required them to devise new styles of clinical engagement (McCoy, 2005; Roberts, 2002; Rosengarten et al, 2004). What we wish to emphasize, however, in drawing attention to this dimension of an evolving medical engagement with HIV, is its parallel with shifts in gay men's sexual practices.

Those taking ART soon deduced, later confirmed by scientific studies (Cohen et al., 2011; Rodger et al., 2016), that the ability of the drugs to suppress viral replication meant that the likelihood of transmitting the virus was also greatly reduced (Suarez et al., 2001; Van de Ven et al. 2000). To put this another way, those already infected with HIV and who had, prior to ART, not needed to use condoms to protect themselves, *but did so with what the interests of others would mean for them*, no longer needed to do so if experiencing full viral suppression.² This new knowledge

introduced a difference to a sexual culture that had for many years been premised on a notion of 'shared responsibility,' calling on all men – irrespective of HIV status – to use condoms unless by arrangement with a regular partner of known same HIV serostatus (Kippax et al., 1993; Parsons et al., 2005).

In short, the antiretroviral event brought with it a different set of premises about HIV risk, and these were not always understood in the same way by sexual actors. Within the social research field, this has been elaborated in a variety of ways. Some have sought to emphasise a complex situation whereby the introduction of antiretroviral therapy provided the conditions of possibility for a limited process of revaluation of risk among some gay men (Race, 2003; Rosengarten, Race and Kippax, 2000). Focusing specifically on the decline in condom use, others have argued that along with antiretrovirals has come a more individualized and often misread set of assumptions about risk in the dynamics of sex relations (Kippax et al., 2013). In a situation comprised of men who were either unaware of their HIV-positive status, and hence not on ART, and men who were HIV negative, new interstices emerged in HIV prevention, and a decrease in condom use enabled transmission of the virus (Khosropour et al., 2016).

In the current medicalized atmosphere, and despite arguments that suggested the situation was complex and dynamic, the shift in sexual practice described in the previous paragraph, has come to be viewed by public health monitors as a singularly negative behaviour outcome of the 'Antiretroviral event'. It is now projected as indicative of what may eventuate with PrEP (Blumenthal and Haubrich, 2014; Grant et al., 2014: 820). Not surprisingly a host of studies now seek to ascertain not only the likelihood of PrEP cultivating an abandonment of condoms but also

to make causal links to the future of HIV infection. And it is here that we find a different orientation of social research to that of the pre-ART period.

Insofar as there is a tussle amongst public health monitors, health activists and social researchers over how to formulate the problem posed by the antiretroviral event, it nevertheless takes place according to what has, arguably, become a highly sedimented idea that the present is determinant of the future. While debate ensues on whether men will presume that antiretroviral drugs have removed a generalized HIV risk, others argue that the debate itself has the effect of constituting gay men as irresponsible risk takers and warrants a considerably more nuanced approach for anticipating the future (Auerbach and Hoppe, 2015; Holt, 2015). While some social scientists aligned with advocacy organizations have championed the introduction of PrEP because it enables sex to be safe without a condom *and* more pleasurable, others suggest PrEP's possibilities may go in various ways. On the one hand, the repertoire of choices that individuals can make about how best to protect themselves from acquiring HIV may be expanded. Also, by reducing the need for condoms, it may improve sexual pleasure and the anxiety of transmission. However, on the other hand, these same possibilities may 'disrupt traditional notions of risk, along with conceptions of responsibility for sexual transmission (Auerbach and Hoppe, 2015).

The Problematic of Futurist Research

Despite efforts to open 'the problem' of PrEP, and thus evade the narrow terms of an either/or wager, it is apparent that a reliance on predictive methodologies not only curtails this intent but also forecloses on what cannot be known in advance. In this section we offer a sketch of

conventional social-scientific studies that draw on current attitudes and patterns of conduct as predictive of what PrEP will do. Although researchers involved in such studies (and we include ourselves in this group) recognize the difficulties in accurately of forecasting, attention is primarily oriented to methodological questions concerned with the validity of the data, according to scientific presuppositions about objective evidence-making, and only implicitly concerned with the problematic of forecasting itself. In their review of 30 sociological studies in which research participants were asked to conjecture on their response to a possible forthcoming availability of PrEP, Young and McDaid draw attention to how commonly named variables such as PrEP 'acceptability' and perceptions of 'risk' differed in meaning as well as being measured in different ways (2014: 210, 212). To the extent that this variability is acknowledged by those conducting such studies, it is most commonly included as 'limitations' to the study's findings. These limitations usually include an account of the specificity of the study sample, for example 'age', and may also discuss variations in the way that risk is conceived of and measured. Despite, or arguably because of this attention, the more critical question of the relevance of a future-oriented methodology itself is elided.

For example, in reference to a survey on PrEP awareness and acceptability amongst MSM using a 'mixed methods design,' Frankis et al. acknowledge the gap between what is stated in the present and extrapolating from this a claim on the future: 'It is ... clear that our findings rely on men's estimates of their future behaviour, rather than any objective measure of actual behaviour' (2016: 12). Similarly cognisant of the problematic of extrapolation, but with concern for compliance by their research subjects to the research agenda, Holt et al. comment: 'Given that most participants indicated that they would maintain condom use if they were using PrEP, our measure for the

likelihood of decreased condom use was probably susceptible to social desirability bias' (2012: 263) Noting the suspected unlikelihood of using both condoms and PrEP at the same time, they add the qualification: 'We would therefore expect condom use to decline more markedly among men using PrEP, unless it was selectively used for episodes of unprotected sex' (2012: 263).

While Frankis et al. (2016) and Holt et al. (2012) recognize that their data is no guarantee of the future, their aim in giving voice to those affected in order to effect relevant policy-making is, nevertheless, confined to a policy call for predictive evidence. Consistent with the Young and McDaid review, the research tends to presume a static present whose elements will extend into the future (Savransky, 2017). That is to say, despite anticipated change, the methodological presumption of futurist research is not commensurate with the relational and dynamic modes by which novel understandings and practices emerge. In short, a quasi-causal logic prevails. It is the insistence of this logic, contested across the field of social studies of medicine, and notably, in Science and Technology Studies (see for example, Will and Moreira, 2010; Timmermans and Berg, 2003; Rosengarten and Savransky, 2018), that we attribute with a foreclosure on unknown possibles.

This is not to say that the kinds of collaborative research referred to in this section is without merit. Indeed, such research has contributed to improving services and reflecting lived experiences, and many social researchers in the HIV field constantly navigate the line between producing more immediate outputs for consumption of clinical, community and policy partners and those that offer more innovative and theoretical approaches. Whereas policy makers and public-health providers may be familiar with some conventional approaches, they are less likely to appreciate the

problematics of futurist research. Insofar as policy-making continues to require a claim on the future and thus give precedence to forecasting methodologies, it functions on the basis of having rendered absent other unknown possibles. Although this rendering is unavoidable when a claim on the future is imagined, we suggest a reorienting in approach. In place of seeing the future as an extension of the present with qualification, we propose attention to the positive or *productive* nature of a problem. Or, more particularly as we approach it here, an appreciation *for* the complexity of the social whose dynamic creative possibilities exceed and counter those of prediction.

A Practicable Research Response to Unknown Possibilities

We come now to the central question of this article: what mode of inquiry might *practicably* appreciate that what happens in the present will have a bearing on the future, *without foreclosing on unknown possibles?* To tackle this question, we turn to our own empirical research *with* PrEP. Having been directly involved in the HIV social research and advocacy field since before the Antiretroviral event, and having followed the early biomedical development of PrEP, in 2011 one of us (DM) joined with an HIV clinical researcher and infectious diseases physician to design Australia's first PrEP feasibility and acceptability study. The study, which eventually opened in 2014, was a multisite, open-label demonstration project recruiting people at risk of HIV infection (Lal et al., 2017). Participants were recruited from general-practice and sexual-health clinics and consented to take daily tenofovir/emtricitabine (TFV/FTC) for 12 months, subsequently extended to 30 months. The study was approved by the Alfred Hospital's Human Research Ethics Committee. Alongside the clinical study, but independent in its design and implementation, we undertook a social study which invited participants to discuss their experiences of being part of the

biomedical intervention. While we cannot be sure of how our participants understood the separation between the two study arms, our aim was to learn of the connections forged *with* the use of PrEP within the constraints of the conventional study. In all, 24 participants (out of the first 100 study enrolments), agreed to and participated in, semi-structured interviews. These interviews, which were conducted face-to-face by the second author, included questions related to adherence to the dosing schedule, changes in sexual practices since starting PrEP, and experiences of participating in the study, including clinic visits.

Our research design was not innovative in the manner that others now propose for social inquiry (see for example, Lury and Wakeford, 2012; Marres, Guggenheim, and Wilkie, 2018), nor was it experimental in the sense suggested by others engaged in the practice of speculative research for avoiding compliance of study participants (see for example, Despret, 2008; Stengers, 2000). Indeed, insofar as our study could be likened to other interview-based studies that have been carried out in the context of large biomedical trials testing the safety and efficacy of PrEP (Franks et al., 2018; Koester et al., 2015), it might also be said to lack methodological innovation. While not denying such claims, our interest is instead in what can be achieved using conventional methods without also making a prediction about the future. In order to elaborate, we outline three specific features of the design of our study.

First, as we have noted, the study was conducted alongside the practice of using PrEP. Unlike the studies mentioned above, it avoided seeking answers of the future. Second, and here taking a conceptual departure from these other studies, we draw on articulations of responsibility that might otherwise be read as a mode of neoliberal or 'social desirability' compliance to an expected norm

of 'safe sex.' Rather than underplaying the articulations of responsibility, as would follow from reading them as a mode of compliance, we treat them as relevant to the fact of HIV risk. To explain what we mean by this, we note the third feature of the study design. Taking our cue from Stengers' (1997) claim that early on the problem of HIV was formulated 'clearly' because it was responsive to what was felt to be relevant by those affected, we have sought to appreciate what our participants articulated of the felt constraints of the problem – a problem shaped not only by the biomedical components and demands of PrEP, but also the research design, and the inheritances of the 'AIDS event.' Insofar as we see the design of our study aligned, in its own situated way, with an interest in the practicability of speculative pragmatism (Greco, 2017; Savransky, 2017), our selected use and style of presenting quotes, plus our discussion, may be understood as our own idiosyncratic pragmatically oriented 'collective' problem-making.

When asked about their experiences of taking the pills (which invariably included reflections on the daily dosing schedule), but also, if using PrEP had altered their sexual practices, responses were varied. Dosing was expressed as a serious obligation, and the nature of the sex was described as contingent on the particular relations that ensued with sexual partners (in particular whether they were a regular versus casual partner), and the likelihood of these partners being HIV positive. Initially, many participants described how PrEP enabled more sex, and specifically sex without condoms, despite the fact that at this time PrEP was relatively unknown within gay communities, and also despite the fact that participants were advised during the study's consent procedures to maintain safe sex practices, including condom use. Not all participants described increases in condomless sex. Some spoke about how a partner's preference for – or insistence on – condoms meant that they were used. However, over time (follow-up interviews were conducted

approximately 18-months later) it became apparent that participants had developed strategies to select, partners who were willing to have condomless sex. As more became known about PrEP in the community over the course of the research, and less tentative messaging around the need to use condoms when on PrEP was adopted, negative reactions from potential sex partners about condomless sex were reported as less frequent and/or less concerning to participants.

The ways in which the research participants reflected on pill use and altered sexual practices were, in some instances, articulated with direct reference to the study. Frequently, individual participants expressed interest in the outcomes of the study on the basis that success would ensure that others would get access to PrEP. As one participant put it:

I have hope and faith that all of those involved in this trial are passionate enough about it to do it right [following the dosing schedule], that they have the energy and the commitment to commit to, yeah, to not fucking [the study] up.

Another participant spoke of taking PrEP as a way of sharing the responsibility for HIV transmission that he felt had been overly placed on HIV positive men:

As I think of it, it wasn't about me. It was about those people that I know who are living with HIV because...I kind of watch the way that all of them carry this tremendous burden in terms of keeping the people they sleep with [HIV] negative.

Some interviewees engaged provocatively with notions of responsibility, suggesting that they were obliged to have sex for the sake of the study and thereby ensure PrEP's future availability. As one said: 'I sometimes feel like I should be going out having sex. What am I taking this [PrEP] for if 'm not going out and having sex? I won't be giving the study enough data.'

These explicit expressions of responsibility in relation to using PrEP, to sex and to the biomedical study are interesting, but not because of a worrisome conformation to a mode of neoliberal self-responsibilising. Rather, we argue that they reveal the legacy of early work to cultivate an collective response to HIV transmission for oneself and sexual partners. If it can be said that that the cultivation of 'shared responsibility' enabled the sustaining and celebrating of sex as a feature of a culture otherwise under siege by the lethal effects of a virus, its resonances continue to matter in a positive problem-making of PrEP. To be sure, there are multiple instances where a neoliberal mode of designating individuals responsible for acquiring HIV has prevailed, and consequently, prior to the 'Antiretroviral event', made difficult a discussion of not using a condom. Nevertheless, to hold only to this notion of responsibility would be to neglect what is now felt to have importance in the affordances of PrEP.

Trust in thinking for the future

In some key respects, our want to situate responsibility apart from neoliberal critiques concurs with Monica Greco's speculative approach to the question of health. As she argues, we cannot avoid, and indeed, nor should we expect, that engagement with health will produce an account that thinks outside the constraint of its current relevance to thought. However, this does not mean that we

cannot appreciate, and as Greco stresses, take care in the manner by which we understand this happens. Referring to Michel Foucault's notion of 'biopower' that is central to neoliberal critiques of responsibility, Greco (2009:16) states that health is always already part of 'establishment speak' — but we should avoid treating it 'in the sense it is conservative and static.' If we are to embrace the conceptual opportunity that biopower provides, it involves an appreciation for its situated creativity. As Greco (2009:17) continues, biopower 'must be recognized as not inherently liberating or oppressive, but that becomes one or the other in the context of local and specific relations.' This emphasis on relational, and, hence dynamic, workings of how health may be taken up, suggests that there may be modes of thinking other than those evident in medical and public health discourse on responsibility. More specifically, the expression of responsibility, or responsible conduct, as it is enacted in relation to what is presumed appropriate to HIV prevention, may be an avenue for such thinking.

Greco's contribution leads us to turn, as she herself does, to the intricate manner by which Kane Race addresses the entanglement of responsibility and pleasure in illicit drug use and HIV prevention. Claiming that 'it is not possible to know everything there is to know about a situation in order to enter it responsibly' (2012:336), Race proposes a need for 'responsive attentiveness' or, what might be aptly termed, a speculative pragmatic mode of engagement that responds, 'to the practical dynamics in question: the specific arrangements and relations we find ourselves in, which also happen to effectuate our capacities and actions' (2012:333). Although some might argue that Race's proposition is not sufficient as a guide to action, the very fact that 'responsive attentiveness' does not demand that one knows in advance what is necessary to the 'good' outcome, resonates with Stengers' claim of posing the problem clearly. It offers a counter to an authoritative approach

to HIV prevention that, as noted earlier, elides what may be relevant to the situation. Indeed, an elision that might be attributed to a neoliberal mode of self-responsibilising that, itself, relies on a presupposition that the future can be known. Moreover, in place of the problematic research presuppositions about the relationship of the present to the future that we have outlined in relation to predictive modes, Race provides an appreciation for the felt relevance of the situation – a situation no doubt informed by medical knowledge but acted in a manner responsive to other crucial elements that we might loosely gather under the term 'sex' – a partner's expectations, assumptions, and the work of desire in pleasure seeking.

To be sure, what we are proposing does not take away from an anticipation of HIV risk and the centrality of a notion of responsibility to it. But while this anticipation is achieved with ingredients of what is known, to anticipate is not, as such, to know that the future will conform. Not every sexual encounter involves practices that will enable or prevent HIV transmission and this is where it might be argued that PrEP contributes to a new and potentially novel mode for *thinking* as much as for practice. While prior to ART, condoms were incorporated to service the anticipation of possible risk, we have shown above that the scope of this service, at least from a public health perspective, and quite likely for many individuals, has become increasing unsettled, and is no longer relevant for every person, in every situation. Indeed, there can be few generalisations here. However, this does not detract from thinking with the selected articulations from our study and, also, others who approach the future speculatively, that PrEP enables new relations with HIV. While PrEP can be argued to forge a responsibility for the future, its engagement also alters what is possible through a mode of 'responsive attentiveness.' Indeed, as such PrEP proposes itself as a speculative pragmatic device with which to think, as well as for *some* to practice.

Conclusion

Although those engaged in responding to the problem of the 'AIDS event' – prior to the biomedicalization of the epidemic – may not have described their approach as speculative pragmatism, their trust in a future different to the present, without presuming to know what would become, has enabled us to construct a contrast to what has been authoritatively and selectively abstracted from this period. Our focus in this regard has not been restricted to the insistent collective demands to resist the lethal effects of a virus but, somewhat more conceptually, to what can be learnt by an engagement with what are felt to be the relevant constraints. By developing our contrast in order to reflect on how social inquiry has become enlisted with the 'Antiretroviral event' in a futurist-oriented agenda, we have sought to contend with the inexorable fact that research cannot see *into* the future. It cannot know *about* a future yet to become.

If our contribution can be claimed as a contestation to the usual demand to forecast what will become, it may serve here as a proposition for a positive engagement with the stubborn fact of process. What we are proposing is a process whose unfinished possibilities warrant not a knowing in advance, but a learning with what are felt to be its constraints for an anticipated but, nonetheless, unknown future. To do so, we have inserted ourselves into the problematics of PrEP along with those targeted for it according to the epidemiological categories of gay men, MSM and people with transgender experience. Insofar as we have situated ourselves in response to the demands of the PrEP wager and its policy formulations, we have become actors in the creative dimensions of a collective problem-making. Our aim has been to introduce a difference. In a limited and pragmatic

manner, with the aid of our research participants and other speculative thinkers, we propose PrEP to warrants appreciation not for what its users will or won't do, but as a speculative pragmatic device with which to think.

References

- Auerbach, J. D. and Hoppe, T.A. (2015) Beyond "getting drugs into bodies": social science perspectives on pre-exposure prophylaxis for HIV. *Journal of the International AIDS Society*, 18(4 (Suppl 3). doi:10.7448/IAS.18.4.19983
- Berridge, V., (1996) AIDS in the UK: The Making of Policy, 1981–1994: The Making of Policy, 1981-94. OUP Oxford, Oxford; New York.
- Blumenthal, J. and Haubrich. R. (2014) Risk Compensation in PrEP: An Old Debate Emerges Yet Again. *The Virtual Mentor: VM*, 16(11): 909–915.
- Cáceres, C. F., K. R. O'Reilly, K. H. Mayer and Baggaley, R. (2015) PrEP implementation: moving from trials to policy and practice. *Journal of the International AIDS Society*, *18*(4 (Suppl 3).
- Cohen, M. S., Chen, Y. Q., McCauley, M., Gamble, T., Hosseinipour, M. C., Kumarasamy, N., ... Fleming, T. R. (2011) Prevention of HIV-1 Infection with Early Antiretroviral Therapy.

 New England Journal of Medicine, 365(6): 493–505.
- Coleman, R. and Tutton. R. (2017) Introduction to Special Issue of Sociological Review on 'Futures in Question: Theories, Methods, Practices'. *The Sociological Review*, 65(3): 440–447.
- Connell, R. W., Crawford, J., Dowsett, G. W., Kippax, S., Sinnott, V., Rodden, P., ... Watson, L. (1990) Danger and Context: Unsafe Anal Sexual Practice among Homosexual and Bisexual Men in the AIDS Crisis. *The Australian and New Zealand Journal of Sociology*, 26(2): 187–208.
- Davis, M. D. M. (1996) Putting it all into practice: forging links between HIV social research and AIDS education. *National AIDS Bulletin*, *10*(1), 34–37.

- Despret, V. (2008) The Becomings of Subjectivity in Animal Worlds. *Subjectivity*, 23(1): 123–139.
- Epstein, S. (1998) Impure Science: AIDS, Activism and the Politics of Knowledge, New Ed edition. ed. University of California Press, Berkeley, Calif.
- Escoffier, J. (1998) The Invention of Safer Sex: Vernacular Knowledge, Gay Politics and HIV Prevention. *Berkeley Journal of Sociology*, *43*, 1–30.
- Flowers, P., Sherran, P. Beail, N. Smith, J.A. (1997) The role of psychosocial factors in hiv risk-reduction among gay and bisexualmen: A quantitative review *Psychology & Health*, 12(2):197-230.
- Frankis, J., Young, I., Flowers, P., and McDaid, L. (2016) Who Will Use Pre-Exposure Prophylaxis (PrEP) and Why?: Understanding PrEP Awareness and Acceptability amongst Men Who Have Sex with Men in the UK A Mixed Methods Study. *PLOS ONE*, *11*(4), e0151385. doi:10.1371/journal.pone.0151385
- Franks, J., Hirsch-Moverman, Y., Loquere, A. S., Amico, K. R., Grant, R. M., Dye, B. J., ...

 Mannheimer, S. B. (2018) Sex, PrEP, and Stigma: Experiences with HIV Pre-exposure

 Prophylaxis Among New York City MSM Participating in the HPTN 067/ADAPT Study.

 AIDS and Behavior, 22(4): 1139–1149.
- Fraser, M. (2006) Event. *Theory Cult. Soc.* 23, 129–132.
- Grant, R.M., Anderson, P.L., McMahan, V., Liu, A., Amico, K.R., Mehrotra, M., Glidden, D.V., (2014). Uptake of pre-exposure prophylaxis, sexual practices, and HIV incidence in men and transgender women who have sex with men: a cohort study. *Lancet Infect. Dis.* 14, 820–829.

- Greco, M. (2009) Thinking beyond polemics: Approaching the health society through Foucault. Österr. Z. Für Soziol, 34, 13–27.
- Greco, M. (2017) Pragmatics of explanation: Creative accountability in the care of 'medically unexplained symptoms.' *Sociol. Rev*, *65*, 110–129.
- Hickson, F. C. I., Davies, P. M., Hunt, A. J., Weatherburn, P., McManus, T. J., and Coxon, A. P.
 M. (1992) Maintenance of open gay relationships: Some strategies for protection against HIV. AIDS Care, 4(4): 409–419.
- Holt, M. (2015) Configuring the users of new HIV-prevention technologies: the case of HIV preexposure prophylaxis. *Culture, Health & Sexuality*, 17(4): 428–439.
- Holt, M., Murphy, D. A., Callander, D., Ellard, J., Rosengarten, M., Kippax, S. C., and Wit, J. B.
 F. de. (2012) Willingness to use HIV pre-exposure prophylaxis and the likelihood of decreased condom use are both associated with unprotected anal intercourse and the perceived likelihood of becoming HIV positive among Australian gay and bisexual men.
 Sex Transm Infect, 88(4): 258–263.
- Holt, M. and Murphy, D. (2017). Prevention optimism related to HIV pre-exposure prophylaxis: shifting the focus from individual to community-level risk compensation. *American Journal of Public Health*. *American Journal of Public Health*, 107(10): 1568–1571.
- James, W. (1907/1995) *Pragmatism*. Toronto, Canada and London, UK: Dover Thrift Publications.
- Khosropour, C. M., Dombrowski, J. C., Swanson, F., Kerani, R. P., Katz, D. A., Barbee, L. A., ... Golden, M. R. (2016) Trends in Serosorting and the Association With HIV/STI Risk Over Time Among Men Who Have Sex With Men. *Journal of Acquired Immune Deficiency Syndromes* 72(2): 189–197.

- Kippax, S. (2017) A journey to HIV prevention research: From social psychology to social health via multidisciplinarity. *Journal of Health Psychology*, 135910531770752. doi:10.1177/1359105317707529
- Kippax, S., Crawford, J., Davis, M., Rodden, P., and Dowsett, G. (1993) Sustaining safe sex: a longitudinal study of a sample of homosexual men. *AIDS*, 7(2): 257.
- Kippax, S., Crawford, J., Dowsett, G. W., Bond, G., Sinnott, V., Baxter, D., ... Watson, L. (1990).

 Gay Men's Knowledge of HIV Transmission and 'Safe' Sex: A Question of Accuracy.

 Australian Journal of Social Issues, 25(3): 199–219.
- Kippax, S. and Race, K. (2003) Sustaining safe practice: twenty years on. *Social Science & Medicine*, 57(1): 1–12.
- Kippax, S. and Stephenson, N. (2012) Beyond the Distinction Between Biomedical and Social Dimensions of HIV Prevention Through the Lens of a Social Public Health. *American Journal of Public Health*, 102(5): 789–799.
- Kippax, S., Stephenson, N., Parker, R. G., and Aggleton, P. (2013) Between Individual Agency and Structure in HIV Prevention: Understanding the Middle Ground of Social Practice.

 *American Journal of Public Health, 103(8): 1367–1375.
- Koester, K. A., Liu, A., Eden, C., Amico, K. R., McMahan, V., Goicochea, P., ... Grant, R. M. (2015) Acceptability of drug detection monitoring among participants in an open-label pre-exposure prophylaxis study. *AIDS Care*, *27*(10): 1199–1204.
- Lal, L., Audsley, J., Murphy, D., Fairley, C., Stoove, M., Roth, N., ... Wright, E. (2017).

 Medication adherence, condom use and sexually transmitted infections in Australian PrEP users: interim results from the Victorian PrEP Demonstration Project. *AIDS*, 31(12): 1709–1714.

- Lury, C., and N. Wakeford (Eds.) (2012) Inventive Methods: The Happening of the Social. London:

 New York: Routledge.
- Marres, N., Guggenheim, M. and Wilkie, A. (Eds.) (2018) Inventing the Social. GB: Mattering Press.
- McCoy, L. (2005) HIV-Positive Patients and the Doctor-Patient Relationship: Perspectives From the Margins. *Qualitative Health Research*, 15(6), 791–806.

Mc Innes, D. and Murphy, D. (2011) Sex Education. *Sexuality, Society and Learning* 11 (1), 61-67.

- Michael, M. (2017) Enacting Big Futures, Little Futures: toward an ecology of futures. *The Sociological Review*, 65(3), 509–524.
- Nicholls and Rosengarten (eds.) (2019) Witness Seminar: Antiretroviral Drugs up to and Including the Proposition of TasP and PrEP. Disentangling European HIV/AIDS Policies: Activism, Citizenship and Health (EUROPACH).

http://www.csisponline.net/wp-content/uploads/2019/03/ARVS WS Published.pdf

Parsons, J. T., Schrimshaw, E. W., Wolitski, R. J., Halkitis, P. N., Purcell, D. W., Hoff, C. C., and Gómez, C. A. (2005) Sexual harm reduction practices of HIV-seropositive gay and bisexual men: serosorting, strategic positioning, and withdrawal before ejaculation. *AIDS*, *19*, S13. doi:10.1097/01.aids.0000167348.15750.9a

Race, K. (2003) Revaluation of risk among gay men. AIDS Educ. Prev. 15, 369–381.

----- (2012) Framing Responsibility: HIV, Biomedical Prevention, and the Performativity of the Law. *Journal of Bioethical Inquiry*, 9(3): 327–338.

- Roberts, K. J. (2002) Physician-Patient Relationships, Patient Satisfaction, and Antiretroviral Medication Adherence Among HIV-Infected Adults Attending a Public Health Clinic. AIDS Patient Care and STDs, 16(1): 43–50.
- Rodger, A. J., Cambiano, V., Bruun, T., Vernazza, P., Collins, S., van Lunzen, J., ... PARTNER Study Group. (2016) Sexual Activity Without Condoms and Risk of HIV Transmission in Serodifferent Couples When the HIV-Positive Partner Is Using Suppressive Antiretroviral Therapy. *JAMA*, *316*(2): 171–181.
- Rosengarten, M., Race, K., and Kippax, S., (2000) "Touch wood, everything will be OK": Gay men's understandings of clinical markers in sexual practice (Monograph7/2000). Sydney: University of New South Wales, National Centre in HIV Social Research, Australia.
- Rosengarten, M., Imrie, J., Flowers, P., Davis, M.D., Hart, G., (2004) After the euphoria: HIV medical technologies from the perspective of their prescribers. Sociol. Health Illn. 26, 575–596.
- ----- and Savransky, M. (2018) A careful biomedicine? Generalization and abstraction in RCTs. *Critical Public Health*, 29:2,181–191.
- Savransky, M. (2017) The wager of an unfinished present: notes on speculative pragmatism. In *Speculative Research, The Lure of Possible Futures*. Oxon, GB and New York: Routledge.
- ----- (2018) Open The Social: On Problematic Sociology. In *Inventing the Social*. GB: Mattering Press.
- Stengers, I. (1997) *Power and Invention: Situating Science*. (P. Bains, Trans.). Minneapolis: University of Minnesota Press.
- ----- (2000) *The Invention of Modern Science*. (D. W. Smith, Trans.). Minneapolis: University of Minnesota Press.

- Suarez, T. P., Kelly, J. A., Pinkerton, S. D., Stevenson, Y. L., Hayat, M., Smith, M. D., and Ertl, T. (2001) Influence of a partner's HIV serostatus, use of highly active antiretroviral therapy, and viral load on perceptions of sexual risk behavior in a community sample of men who have sex with men. *Journal of Acquired Immune Deficiency Syndromes* (1999), 28(5): 471–477.
- Thomann, M. (2018) 'On December 1, 2015, sex changes. Forever': Pre-exposure prophylaxis and the pharmaceuticalisation of the neoliberal sexual subject. *Global Public Health*, *13*(8): 997–1006.
- Timmermans, S. and Berg, M. (2003) The practice of medical technology. *Sociology of Health & Illness*, 25(3): 97–114.
- Van de Ven, P., Prestage, G., Crawford, J., Grulich, A., and Kippax, S. (2000) Sexual risk behaviour increases and is associted with HIV optimism among HIV-negative and HIV-positive gay men in Sydney over the 4 year period to February 2000. *AIDS (London, England)*, 14(18): 2951–2953.
- Young, I. and McDaid, L. (2014) How Acceptable are Antiretrovirals for the Prevention of Sexually Transmitted HIV?: A Review of Research on the Acceptability of Oral Preexposure Prophylaxis and Treatment as Prevention. AIDS Behav. 18, 195–216.
- Young, I., Flowers, P., and McDaid, L. (2016) Can a pill prevent HIV? Negotiating the biomedicalisation of HIV prevention. *Sociol. Health Illn.* 38, 411–425.
- Weatherburn, P., Hickson, F., Reid, D., Davies, P. and Crosier, A. (1998) Sexual HIV risk behaviour among men who have sex with both men and women. *AIDS care*, 10 (4), 463–471.

WHO. (2014) Consolidated guidelines on HIV prevention, diagnosis, treatment and care for key populations. [Retrieved 10 June 2018, from http://www.who.int/hiv/pub/guidelines/keypopulations/en/

Will, C., and Moreira, T. (Eds.) (2010) *Medical Proofs, Social Experiments: Clinical Trials in Shifting Contexts*. Farnham, Surrey, England: Burlington, Vt: Routledge.

¹ See Nicholls and Rosengarten (2019) for a discussion by participants in the early phase of the epidemic in the UK.

http://www.csisponline.net/wpcontent/uploads/2019/03/ARVS_WS_Published.pdf

² Viral suppression refers to the manner by which antiretroviral drugs intervene in the invivo replication of the HIV virus and, with full suppression, prevent the onset of AIDS.

Acknowledgements

Many thanks to the VicPrEP study participants and the study's Principal Investigator, Associate Professor Edwina Wright, who supported us in undertaking the qualitative arm of the study. Thanks also to John de Wit and Martin Holt. VicPrEP was funded by the Victorian Department of Health and Human Services and the Alfred Hospital, Melbourne. Study drug was donated by Gilead Sciences. We would also like to acknowledge the constructive comments of our anonymous reviewers.