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Could there ever be an app for that?

Consent Apps and the Problem of Sexual Assault

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Abstract

Rape and sexual assault are major problems. In the majority of rape and sexual assault cases consent is the central issue. Consent is, to borrow a phrase, the 'moral magic' that converts an impermissible act into a permissible one. In recent years, a handful of companies have tried to launch 'consent apps' which aim to educate young people about the nature of sexual consent and allow them to record signals of consent for future verification. Although ostensibly aimed at addressing the problems of rape and sexual assault on university campuses, these apps have attracted a number of critics. In this paper, I subject the phenomenon of consent apps to philosophical scrutiny. I argue that the consent apps that have been launched to date are unhelpful because they fail to address the landscape of ethical and epistemic problems that would arise in the typical rape or sexual assault case: they produce distorted and decontextualised records of consent which may in turn exacerbate the other problems associated with rape and sexual assault. Furthermore, because of the tradeoffs involved, it is unlikely that app-based technologies could ever be created that would significantly address the problems of rape and sexual assault.

1. Introduction

Rape and sexual assault are major problems. In the U.S. there has been much recent debate about the prevalence and incidence of rape and sexual assault on university campuses. According to some studies, between one-in-five[1] and one-in-four women[2] are likely to

[1] Krebs, C et al *The Campus Sexual Assault Survey* (National Institute of Justice, Washington 2007), available at https://www.ncjrs.gov/pdffiles1/nij/grants/221153.pdf
[2] Cantor, D. et al *Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct* (The
[2] Cantor, D. et al *Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct* (The
Association of American Universities, 2015) available at http://www.aau.edu/uploadedFiles/AAU_Publications/AAU_Reports/Sexual_Assault_Campus_Survey/Report

experience unwanted sexual contact[3] during their time at university. Similar figures are reported in other countries. In Ireland, for example, a 2015 study of leading universities revealed that between one-in-seven and one-in-four women were victims of unwanted sexual contact.[4] The studies also suggest (as is true in non-university cases) that these incidents go under-reported and under-prosecuted.

These studies have been the subject of criticism.[5] Some argue that they give inflated figures due to the language used in the surveys.[6] But even if this is correct, the likely 'true' number is still high[7] and most would agree that something ought to be done to address the problem. What might this be? One obvious, and already attempted, solution involves changing legal standards associated with the nature and proof of sexual consent. The most noticeable of these changes involves shifting to an *affirmative consent standard* — something that is now mandated in universities in certain US states and favoured by universities in other states.[8] Less legalistic interventions include improving the education of young people (particularly young males)[9] about the nature of sexual consent.[10] These educational initiatives

%20on%20the%20AAU%20Campus%20Climate%20Survey%20on%20Sexual%20Assault%20and%20Sexual%20Misconduct.pdf

[3] I use this term, rather than 'rape or sexual assault' because of the controversies alluded to in the text about the language used in the surveys supporting these figures.

[4] Humphreys, J. '11% of Women Students believe they were victims of sexual assault' *Irish Times*, 4 June 2015 - The 11% figure comes from focusing on the previous year. The one-in-four figure comes from focusing on how many people were victims of sexual assault and/or attempted assault over a number of years.

[5] For instance, compare the figures in the two US-based surveys (n 1 and 2) with the figures in the National Victimization of Crime survey. This survey suggests lower overall incidence for students and higher incidence for non-students: Sinozich, S. and Langton, L *Rape and Sexual Assault Victimization Among College-Age Females, 1995–2013* (Department of Justice, Bureau of Statistics, November 2015) available at http://www.bjs.gov/content/pub/pdf/rsavcaf9513.pdf

[6] For a useful overview of criticisms, see Nelson, L 'Why some studies make campus rape look like an epidemic while others make it look rare', *Vox* 11 December 2014, available at http://www.vox.com/2014/12/11/7378271/why-some-studies-make-campus-rape-look-like-an-epidemic-while-others

[7] There is an interesting question here as to whether any figure higher than zero is acceptable. In principle, no: we obviously do not want anyone to be the victim of rape or sexual assault. In practice, it may be impossible to reduce the incidence of a particular crime to zero.

[8] *California Senate Bill 967 Student Safety: Sexual Assault* makes it a condition of funding for the state's universities to adopt affirmative consent standards; New York adopted a similar piece of legisation in *Senate Bill S5965*. Both pieces of legislation affect proceedings within universities and do not change the definition of consent for rape and sexual assault within the criminal law.

[9] As is common in the literature, for the purposes of this article I will view sexual assault and rape as primarily male-on-female crimes. I will not completely ignore the possibility of male-on-male, female-on-female, and female-on-male crimes (or other combinations of genders). Indeed, the majority of the analysis I undertake applies equally well to all categories. Nevertheless, the male-on-female scenario will be to the forefront and some of the points I will make will be tied to the socio-cultural history of that form of the crime.

[10] In Ireland, where I am based, one of the responses to the studies on sexual assault on campus has been the launch of a 'Smart Consent' education campaign. See http://www.nuigalway.ie/smartconsent/. Such educational programmes are common on US campuses too.

have proved controversial in recent times, with some students staging protest 'walkouts' from obligatory consent classes.[11]

These interventions have their merits and their demerits, some of which will be considered below. The main question for the remainder of this article, however, is whether apps, designed for use on a smartphone or wearable technology device, have any role to play in addressing the problems of consent associated with rape and sexual assault. In recent years, a few companies have attempted to introduce 'consent' apps into the market, targeting them primarily at college-age students. These apps typically have both an educative and evidential purpose, providing some information about the nature of sexual consent, in addition to a secure, encrypted service for recording signals of sexual consent for later retrieval. Can such apps help, even if only in part, to reduce the problems of rape and sexual assault?

This article answers that question in four stages. First, it maps out the landscape of ethical and epistemic problems associated with the giving and receiving of consent to sexual relations. This landscape provides a clearer sense of the possible 'targets' for any technological intervention. Second, it explains how consent apps actually work, looking at two examples of the technology that have been offered for public use. Third, it subjects these existing apps to some critical scrutiny, identifying several ways in which they fail to address the problems of rape and sexual assault and some ways in which they could make things worse. Then fourth, and finally, it uses this analysis of existing consent apps to consider whether this technology could ever be used to address the problems of rape and sexual assault. It concludes by arguing that the scope for such technological interventions is limited due to the tradeoffs involved in any proposed intervention. This general conclusion is the important one. Although the criticisms of particular consent apps are interesting in their own right, apps of this sort have a tendency to pass in and out of existence rather frequently. The important question is whether we could ever use technology of this sort to address the problems surrounding sexual consent.

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[11] Pells, R. 'Students stage walkout in protest over 'patronising' sexual consent classes', 29th September 2016, *The Independent*, available at: http://www.independent.co.uk/student/news/sexual-consent-classes-walkout-student-protest-york-university-workshops-a7338106.html

2. Ethical and Epistemic Problems with Consent

To understand the role of consent apps in addressing rape and sexual assault, we need to get a clearer sense of the landscape of ethical and epistemic problems that arise in the typical case. To do this, I start with a series of platitudes about sexual activity and the importance of consent. These may seem obvious and banal, but it is important to identify them so as to start the analysis from some reasonably uncontentious common ground.

Sexual activity is an important and highly valued part of the human experience. In addition to being a source of pleasure, sexual activity is, for many people, a mark of intimacy and maturity. At the same time, unwanted sexual activity can be physically and emotionally traumatising, sometimes leading to lifelong personal and interpersonal difficulties.[12] Although it may be impossible to perfectly delineate between these two broad categories of sexual activity,[13] an important function of any socio-legal system of sexual norms is to create tests for distinguishing permissible sexual activity from impermissible sexual activity — preventing and punishing the latter whilst, if not encouraging, at least facilitating the former. In short, an important goal for any socio-legal system should be to set and enforce norms that protect *negative sexual autonomy* and facilitate *positive sexual autonomy*. For most people, and in most legal systems, *consent* is now deemed to be the 'moral magic' that performs this crucial normative function.[14]

But what is consent and how do we know when it is present? Unsurprisingly, the answers to these questions are complex and controversial.[15] Westen, for instance, argues that there are at least four distinct consent concepts that operate in moral and legal discourse and that confusions about these concepts can have serious practical repercussions.[16] I here adopt a simplified version of his framework. That framework asks that we distinguish between

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[12] To be clear, in identifying these two evaluations of sexual activity I am not ignoring the possibility that much sexual activity is neutral or not particularly valuable. I ignore this 'middle' category since consent would still be essential to its permissibility.
[13] The factors that make sexual activity valuable and disvaluable may be quite complex and variable.
[14] I borrow the phrase 'moral magic' from Hurd, H. 'The Moral Magic of Consent' (1996) 2(2) *Legal Theory* 121-146
[15] For useful overviews see: Wertheimer, A *Consent to Sexual Relations* (Cambridge University Press, 2003); Westen, *The Logic of Consent* (London: Ashgate, 2004); Westen, P 'Some Confusion about Consent in Rape Cases' (2004) 2 *Ohio State Journal of Law* 333-359; Husak, D 'The Complete Guide to Consent to Sex: Alan Wertheimer's *Consent to Sexual Relations*' (2006) 25(2) *Law and Philosophy* 267-287; Ferzan, K. 'Clarifying Consent: Peter Westen's *The Logic of Consent*' (2006) 25 *Law and Philosophy* 193-217; and Hurd, H.'Was the Frog Prince Sexually Molested? A Review of Peter Westen's *The Logic of Consent*' 103(6) *Michigan Law Review* 1329-1346.

consent as *subjective attitude* (i.e. willingness to accept or go along with something, not necessarily equivalent to a desire) and an *objective performance* (i.e. the communication of signals of willingness to another party). It also asks that we distinguish between *factual* and *prescriptive* consent (i.e. between what a person actually communicated and subjectively felt about an act, and the normative standards we as a society demand). Prescriptive consent is almost always about the objective performance of consent and determining what is or is not appropriate to infer from an objective performance. This is because it is difficult to figure out what a person's subjective attitude actually is, other than by inferring it from the objective signals representing that attitude.

I presume that the normative goal in any society is to create a system of consent standards that ensures that the objective performance matches the subjective attitude, i.e. that the objective signals of consent to sex that people act upon match with the subjective willingness to have sex. But I also presume that the harms resulting from nonconsensual sexual activity are serious enough to warrant erring on the side of caution. In other words, the prescriptive standards may need to be such that a person could be guilty of rape and/or sexual assault because they failed to solicit or receive an appropriate signal of consent, even if the other person subjectively consented to the activity. This might seem controversial to some readers, but I believe it to be appropriate given the problems with sexual assault and rape in society.[17] Furthermore, the risk associated with erring on the side of caution is minimal since someone who subjectively assented to an act without providing objective communication is unlikely to pursue conviction. Far more important that we avoid the case in which somebody neither subjectively assents nor objectively communicates consent.

With this understanding of consent in place, I can map out more clearly the landscape of ethical and epistemic problems that arises in the typical case of rape and sexual assault. It will be useful to divide that landscape into two portions: (i) the *ex ante* portion, which covers everything that occurs prior to and during a sexual encounter between two or more people;[18] and (ii) the *ex post* portion, which covers everything that happens thereafter. The moral hope is that all sexual encounters are consensual: that the parties to them give and receive

[16] Westen (n 15); He distinguishes between: factual attitudinal consent; factual expressive consent; prescriptive attitudinal and expressive consent; and prescriptive imputed consent.
[17] On this point, see Dougherty, T. 'Yes Means Yes: Consent as Communication' (2015) 43(3) *Philosophy and Public Affairs* 224-253 who argues that communication is always essential for consent.

prescriptively appropriate signals of consent. The problem in the case of rape and sexual assault is that this is not the case: one of the parties has not consented to the encounter and the other party proceeded in the absence of a prescriptively appropriate signal of consent. The normative goals within society at large (and on university campuses in particular) is to both prevent this from happening and to prosecute/punish those who initiate sexual encounters in the absence of objective signals consent.

In the *ex ante* phase, the normative goal is to ensure that people understand the prescriptive standards of consent and that they only act on the basis of those standards. Achievement of this goal is hindered by the combination of social bias, taboo, and awkwardness that is associated with the giving and receiving of consent signals. As many have pointed out, we live in cultures that frequently normalise harmful myths about consent, particularly myths around male sexual aggression and female timidity.[19] Many people consequently act on the basis of false signals of consent such as dress, flirtatious behaviour, silence, past sexual history and so forth. In addition to this, perhaps due to past histories of sexual repression and conservatism, there is a social taboo and awkwardness associated with having open and honest conversations about sexual desires with one's putative sexual partners. This compounds the problem of people acting on the basis of misleading or false signals as they rely on indirect signals of consent.

In the *ex post* phase, the normative goal is to ensure that we can accurately identify past instances of nonconsensual sexual activity, and fairly and appropriately prosecute those who are guilty of acting on the basis of misleading or false signals. There is a normative balancing act to be undertaken here. We want to ensure that victims of sexual assault and rape are vindicated and that the perpetrators are punished.[20] But we also want to ensure that people are not unfairly accused and prosecuted. The classic feminist critique of rape and sexual assault laws maintains that the balance has leaned too heavily in favour of the latter. This is part of the reason why the incidence of rape and sexual assault is so high and why it nevertheless goes underreported and underprosecuted: It is difficult to prove non-consent, partly because

[18] It is important for the *ex ante* portion to cover everything during a sexual encounter because, as is repeatedly emphasised below, consent to sex is an ongoing thing, which can be withdrawn at any time.
[19] On the topic of rape myths, see Conaghan, J. and Russell, Y. 'Rape Myths, Law, and Feminist Research: 'Myths About Myths'?' (2014) 22(1) *Feminist Legal Studies* 25-48, responding to Reece, H. 'Rape Myths: Is Elite Opinion Right and Popular Opinion Wrong?' (2013) 33(3) *Oxford Journal of Legal Studies* 445-473.

of procedural norms, and partly because people are willing to infer consent from objective behaviours of dubious value. This dissuades many people (women) from pursuing convictions and providing testimony. For present purposes, I am assuming that this critique is, broadly speaking, correct. I will not, however, completely ignore the other side of the scale: fairness to the accused is certaintly of high importance too. In any event, no matter where you stand on this normative balancing act, most people agree that sexual encounters usually occur in epistemically non-ideal circumstances. It is often very difficult to retrospectively determine what the signals of consent were and how they were interpreted. Most sexual encounters occur in private, which means we often end up with the problem of duelling and mutually contradictory testimony (the infamous 'he-said/she-said' dynamic). Cutting through this epistemic fog is a sensitive project. Some insist that we need to take the testimony of victims more seriously; some argue that doing so jeapordises the accused.

To briefly sum up, consent is generally viewed as the moral magic that delineates permissible from impermissible sexual activity. When it comes to addressing the issue of rape and sexual assault, we must confront *ex ante* and *ex post* problems. The *ex ante* problems involve ensuring people enter into sexual encounters on the basis of prescriptively appropriate signals; and the *ex post* problems involve working out whether or not this was the case. Any attempt to ameliorate the problem of rape and sexual assault could target one or both of these things. This is clear from existing interventions. Changes to legal definitions (such as the introduction of affirmative consent standards) and campus education programmes try to address *ex ante* problems; and changes to legal definitions and procedure try to address the *ex post* problems, often by introducing reforms such as evidential presumptions and restrictions that make it easier to establish non-consent.

3. How do Consent Apps (Supposedly) Address these Problems

Where do consent apps fit into this landscape? To answer that question I will consider two examples: (i) the *Good2Go* app; (ii) the *We-Consent* ™ app suite. I will consider how they work and the problems they are both intended to address and capable of addressing.[21]

[20] I am agnostic here about the underlying goal of the punishment. It may be retribution, deterrence, rehabilitation etc. It does not matter for present purposes. All that matters is that there is some morally legitimate purpose.

[21] The distinction is important. The app designers may intend for the app to do one thing, but the app may be capable of doing more.

My initial discussion will be descriptive in nature. Critical scrutiny of the apps will be undertaken in the next section. I am choosing these apps for discussion because they have already been presented for public use and because by considering their functionality we can get a good sense of how consent apps might work in the future. My ultimate critical focus is on whether this type of technology could ever help to address the problems around rape and sexual assault, not with the merits and demerits of the particular apps discussed, though it is important to understand how these can shed light on the broader issue.

3.1 - The Good2Go App

The *Good2Go* app was the first consent-app to garner widespread media attention. It was the brainchild of Lee Ann Allman, a California-based entrepreneur, and it launched in September 2014. It was shut down shortly afterwards in October 2014 when Apple denied permission for it to be sold in their app store.[22] Allman then renamed her company and decided to focus on creating online educational resources.[23] Despite its short-lived nature, the *Good2Go* app is instructive in the present context as it gives a sense of the dual functionality of most consent apps.[24]

The *Good2Go* app adopted a text-based messaging format. It provided its users with a way to signal consent to one another using pre-set options and, crucially, recorded those signals in an encrypted form for later retrieval. Suppose A and B had met at a college party and at least one of them had the desire to initiate a sexual encounter. The app would allow them to signal this desire to the other party without the need for an explicit conversation. Suppose it was party A who wanted to initiate sex. They would open the app on their phone and it would display a question asking 'Are we Good2Go?'. A would then pass the phone to B who would be given three reply options: (i) 'No, thanks' (which, if selected, would be accompanied by the message "Remember! No means No! Only Yes means Yes, but can be changed to NO at anytime!"), (ii) 'Yes,…but we need to talk' and (iii) 'I'm Good2Go'. If B responded with (iii) they would then be sent to another screen to gauge their level of intoxication. Four options would present themselves: (i) sober; (ii) mildly intoxicated; (iii) intoxicated but Good2Go; and (iv) pretty wasted. If B selected (iv) they would not be

[22] Hess, A. 'Consensual Sex App Good2Go has been Shut Down' *Slate*, 7 October 2014
[23] http://sandtontechnologies.com/ and private correspondence.
[24] Due to the fact that the website for the app has been taken down, the description that follows is based on (largely critical) media reports of how the app worked: Lomas, N. 'Just Say No to this Consent App' *Techcrunch* 1 October 2014; and Hess, A. 'Consensual Sex: There's an App for that' *Slate,* 29 September 2014.

permitted to signal consent; if they selected any of the other options they were given the all clear. At this stage, they would be asked to provide their phone number for verification purposes. The app would then create a record that A and B had signalled consent to one another through the app. This record would not be accessible to the app users, but could be retrieved by court order or other formal request at a later date.

It is clear from this description that the *Good2Go* app was targeted at both the *ex ante* and *ex post* problems of sexual consent. The messaging format of the app was intended to provide a tool for signaling consent. Its use of text as opposed to speech, along with its use of euphemistic expressions like 'Good2Go' and 'pretty wasted' suggest a certain informality and casualness that may have been intended to address the awkwardness that surrounds sexuality (particularly for young adults). The fact that the app created a record of the consent signals being exchanged between the parties also suggests that it was intended to cut through the epistemic fog surrounding the typical rape or sexual assault case. The fact that such a record was only created when consent was signaled (and not when the other party said 'No, thanks') also suggests that the main function of this record would be to provide protection against false accusation of rape or sexual assault.

3.2 - The We Consent ™ App Suite

The *We Consent* ™ app suite was the second major consent app to garner widespread media attention.[25] As the name suggests, it is not just a single app but rather a suite of four separate apps, three of which are in existence at the time of writing and a fourth of which is currently in development. The app suite is the brainchild of Michael Lissack, a businessman-turned-philosopher, who focuses on social complexity theory and its application to organisations.[26] Lissack is clear[27] that the apps were created specifically in light of the US campus sexual assault problem and the switch to affirmative consent standards on US

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[25] A small sample: Petrilla, M. 'Can an app help reduce sexual assault on campus?' *Fortune* 1 September 2015; Luckhurst, E. 'We-consent is the new app that lets you say 'yes' to sex…is it useful or just plain creepy?' *Evening Standard*, 23 July 2015; Ali, A. 'We-Consent: American businessman launches sexual consent app for students and athletes which records mutual sex agreement', *Independent* 10 July 2015; Bernhard, M. 'When it comes to consent to sex should there be an app for that?' *Chronicle of Higher Education* 11 June 2015; Blewett, S and Cashmore, A. 'We Consent: Anti-date rape app lets you record decision to have sex before you go to bed' *The Mirror*, 13 July 2015.

[26] Lissack is the executive director of the Institute for the Study of Coherence and Emergence (ISCE), which is also the organisation behind the development of the app. See http://www.isce.edu

[27] See the briefing materials for the app suite, available at http://isce.edu/WECBriefing.pdf (accessed 2/12/16).

campuses. The aim of the apps is to complement these changes and ameliorate the risks associated with them. This is stated explicitly in the briefing materials on the company's website:

> *"Improving the climate regarding sexual consent on college campuses is presently a social change of major proportions. Such change cannot be adequately accomplished solely by implementing edicts and laws, as recent unsettling statistics have shown. Instead, this change has to be accomplished through the willing participation of a vast majority of members of the community itself."*[28]

> *"Enforcement of the new standard of "Only Yes Means Yes" is too important to leave to the vagaries of he said/she said."*[29]

> *"At present, the law in both NY and CA as well as the Department of Education Title IX standard used at most colleges is "Only Yes Means Yes." Further, it is widely acknowledged that the transition to an implementation of the new "Only Yes Means Yes" standard is fraught with risks—risks that ONLY can be ameliorated should the parties document their consent."*[30]

So how exactly does the app suite complement and ameliorate the risks associated with changes to the law in the US?

It starts with the We-Consent ™ App, which is probably the flagship member of the suite.[31] We-Consent ™ allows parties to video-record clear 'Yeses' to sexual relations. Suppose A and B meet and one of them (A) wishes to enter into sexual relations. A would open the app on their phone. They would be prompted to record a short video message of themselves stating the name of the person with whom they wish to have sexual relations into the phone. Following this, they would hand their phone to B who would be asked to record a short video message stating whether or not they wish to enter into sexual relations with A.

[28] Briefing document (available at http://isce.edu/WECBriefing.pdf) p 1
[29] Briefing document (available at http://isce.edu/WECBriefing.pdf) p 4
[30] Briefing document (available at http://isce.edu/WECBriefing.pdf) p 4
[31] The description of this and all the remaining apps functionality is based on the briefing documents and video presentations, available from the We Consent website: http://we-consent.org.

According to screenshots, the app uses the wording "State the name of the person with whom you want to have sexual relations". The app uses some facial and voice recognition technology. It only works if the person's face is clearly visible in the recording. And it only creates a record if it detects a clear 'yes'. The record it creates is encrypted and is not accessible by users, but can be retrieved if needed in legal proceedings. The app also allows the parties to state 'forced yes', if they feel coerced and will create an encrypted record of that signal too. All these recordings are time-stamped and geo-stamped.

In its basic functionality, the We-Consent ™ App is similar to Good2Go. It provides a tool for signaling and recording consent to sexual relations. It differs insofar as the signal is a video recording of the parties stating 'yes', not a euphemistic text message. It also differs insofar as the We Consent ™ app is just the first in the family. The second member of the family is the What-about-no ™ App. This app allows one party to clearly signal a 'no' to sexual relations to the other party. Go back to our fictional pairing of A and B. Suppose B does not wish to enter into sexual relations with A. B can then open the What-about-no ™ app on their phone and turn the screen toward A. The picture of a policeman will appear on the screen saying: "You were told NO! A video of that no message has been recorded and saved. What is it about the word no that you do not understand? No means No!"[32] A stop sign then appears on the screen along with a further reminder that a video of them watching this message has been recorded. This recording is encrypted and stored for retrieval, if needed, in legal proceedings. Ostensibly, this app allows someone to communicate a withdrawal of consent as well as a refusal to enter into sexual relations. I return to this in the next section when I consider criticisms of the apps.

The third member of app suite is the I've-been-violated ™ app. This allows someone to create a post-facto record of rape or sexual assault. The makers note that in many sexual assault cases the victim's unwillingness to speak with a third party about the assault immediately afterwards creates problems for future prosecution.[33] The app addresses this by allowing them to provide contemporaneous testimony through a time and geo-stamped video recording:

[32] Briefing document p. 9
[33] Briefing document, p. 11

"Once the victim has reached what he or she considers to be a safe place, the I've-Been-Violated ™ App can be run. The app asks the victim to identify him- or herself, to state what transpired, and to name the assaulter. Inherently, the video will record the current appearance of the victim (which may be useful evidence at a later date). This information is video recorded, and, as with all other apps in the We-Consent ™ App Suite, the geocoded, time-stamped video is encrypted and sent to the cloud for transfer to offline storage. The video is only available to appropriate legal, health, and school authorities or upon subpoena."[34]

The fourth and final member of the app suite is the Party Pledge ™ app. At the time of writing, this app was still in development but a basic description of its functionality is available.[35] It works as a tool for signaling commitment to affirmative consent standards prior to and during a party. People who download the app pledge not to engage in sexual relations without prior discussion. Before any particular party, a QR code is created that is unique to that party. Upon arrival at the party, guests scan the QR code to gain admittance. This works to reaffirm their commitment to the pledge. The following day an email reminder is sent to them about their use of the app and their commitment.[36]

These descriptions clarify the functionality of the We-Consent ™ app suite. As can hopefully be seen, the apps are capable of addressing both the *ex ante* and *ex post* problems arising from sexual assault. The emphasis on recording signals of consent (or signals of commitment to certain norms of behaviour) for later retrieval in legal proceedings clearly evinces a concern for the epistemic problems that arise after a sexual assault has occurred. This is also apparent from statements in the app's briefing materials about the 'vagaries of he said/she said'[37] and the risks associated with affirmative consent standards. But, in addition to this concern for the epistemic problems, there is very clearly an emphasis on changing *ex ante* behaviour. Indeed, the app makers go so far as to suggest that cutting through the epistemic fog is secondary to changing behaviour:

[34] Briefing document, p. 11
[35] Briefing document, p. 13
[36] The functionality of this app is odd, in one sense, in that it seems to just involve pledging commitment to existing legal standards. Nevertheless, it might be argued that this pledge would have an effect on behavior that might not arise in the absence of a pledge.

"By giving the two parties the option of making a permanent record of their consent, the mere existence of the app triggers questions about its use or potential use. These discussions inevitably evolve into a discussion of the intended upcoming sexual activity. More important than proof is the fact of both parties having direct and explicit discussions about what activities they both agree to engage in. Indeed, the conversation itself is the fundamental objective of the app."[38]

So the goal is to help people overcome the bias against having open conversations about future sexual encounters by providing them with a 'contextual trigger' that encourages them to have such conversations. This doesn't completely negate the evidential uses of the app — they will by necessity lurk in the background — but it does suggest the hope that the evidential uses may never materialise.

4. The Problems with Consent Apps

Now that we have a clearer sense of how consent apps work, we can proceed to some critical evaluations. In doing so, we must adopt an appropriate methodology. As with any proposed intervention into a social problem, we must protect against *status quo bias* — we must adopt a contrastive and complementary methodology of assessment.[39] We cannot assess the merits of these apps in isolation from what is already being done to resolve the problems of rape and sexual assault. We must consider the extent to which the apps undermine, complement or replace these existing solutions. Indeed, this is something the app developers encourage us to do. In the description of We Consent ™ I noted how the developers intended their apps to complement and ameliorate the risks associated with the switch to an affirmative consent standard on US college campuses.

So what is the status quo against which we must assess these apps? The particulars will vary from country-to-country and jurisdiction-to-jurisdiction. For present purposes, I will have to limit myself to the jurisdictions with which I am familiar: the US, England and Wales, and Ireland. These jurisdictions differ in many ways, but there is a relatively common set of problems in each and relatively homogenous set of proposed or extant solutions to those problems. When combined, these problems and solutions represent the emerging status

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[37] Briefing document, p. 4.
[38] Briefing document, p. 4

quo. So, in each of these jurisdictions, there is a general acknowledgment that rape and sexual assault probably go under-reported and under-prosecuted; that this, along with the prevalence of rape and sexual assault, is linked to the ex ante and ex post problems mentioned in section 2; and that the best solutions to these problems are changes to legal standards — such as a shift to an affirmative consent standard combined with changes to evidential rules that make it easier to prove non-consent[40] — and educational programmes targeted in particular at young adults in university.

In what follows I assess the two apps (or app suites) described above relative to that status quo. My purpose is twofold. First, to identify potentially serious flaws in the design and operation of these apps and use these flaws to argue that the widespread use of these apps might worsen things relative to the status quo. Second, to use the flaws as the basis for asking and answering the further question: could consent apps ever help to address the problems of rape and sexual assault?

4.1 - Do they resolve the ex post problems?

I will start after the fact. Suppose a complainant alleges that a sexual assault or rape has occurred. Suppose the accused denies this. It seems like we have a classic he said/she said scenario on our hands. Any court or tribunal body tasked with figuring out what happened will face the challenge of cutting through the epistemic fog previously mentioned. Would their situation be improved if consent had been recorded using one of these apps?

The short answer is no. There are three objections to the evidential value of recording signals of consent in this manner, the first of which is the most important.

This first objection is something I shall call the *decontextualisation problem*. It casts a shadow over the other two objections. Put simply, the problem with both sets of consent apps is that they create decontextualised, permanent records of certain signals of consent (or non-consent, as the case may be). When interpreted without the appropriate context, these signals might seem to have more evidential worth than they really do, and may, simply because of

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[39] Ord, T. and Bostrom, N. 'The Reversal Test: Eliminating Status Quo Bias in Applied Ethics' (2006) 116(4) *Ethics* 656-679

[40] This is obvious in the Californian and New York statutes mentioned earlier. It is also obvious in the Sexual Offences Act 2003 in England and Wales. This act defined consent as 'agreement by choice with the freedom

their tangibility and retrievability, trump important countervailing evidence. In short, the objections holds that a decontextual signal could have a prejudicial effect on the interpretation of the historical evidence. In principle, this could be mitigated by juror warnings or the use of exclusionary evidential rules, but the practical value of this is questionable due to (a) the prevalence of rape myths in society and their impact on how key decision-makers weigh and interpret evidence and (b) the impact that this, and the recording process, will have on somebody's willingness to pursue a conviction. This objection requires some unpacking.

Human communication is a complex phenomenon. In an ideal situation two people would communicate consent to each other using common knowledge signals of consent.[41] In other words, A would use a signal that B knows communicates consent, and B would use a signal that A knows communicates consent, and A would know that B knows that his signal communicates consent, and B would know that A knows that his signal communicates consent, and so on. In practice, communication often falls short of this ideal. We communicate using indirect forms of speech/gesture that have multiple meanings. We often do this to 'save face' in social contexts. This can lead to interpretation problems within the original context of the communication. And it can create further problems when we attempt to interpret the meanings of those signals outside of their original context. As any philosopher of language will tell you, the meaning of a signal is a function of *semantics* and *pragmatics*. The semantic meaning of the signal is its conventionally accepted meaning. The pragmatic meaning is the meaning that the signal acquires in its particular context. It is often the case that the meaning of a signal is *enriched* by the pragmatic context in which it is used. If I say, 'Yes I will have sex you with you' that might seem to have a clear and obvious semantical meaning. But if I said this after you had just asked me 'What is the least likely thing that you will say this evening?' its pragmatic meaning would be different. This prior question is part of the pragmatic context in which I said what I said. This pragmatic context changes, significantly, the meaning of what I said. Someone who lacked epistemic access to this original pragmatic context, and who only had access to me saying 'Yes, I will have sex with you' would be making a grave error by presuming that is what I really meant. This is just an example, but it illustrates the key point: Context is *everything* when it comes to interpreting

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and capacity to choose', placed on onus on the defendant to seek affirmative signals of consent, and introduced a series of evidential presumptions (ss 74-76)

signals of consent. To take a mere fragment of speech (such as a short video of someone saying ‘yes, I will have sexual intercourse with person X’) or a pre-programmed text message out of its original context, and to presume that by itself it provides clear evidence of consent, would be to commit a grave error.

Of course, what counts as relevant pragmatic context varies from case to case. It certainly includes prior and subsequent speech acts, but may also include the previous and ongoing relationship between speaker and hearer,[42] nonverbal behaviour and the broader context of the conversation (was it in private, in public etc.). The relevance of some of these contextual factors is disputed in sexual assault cases. Nevertheless, despite this controversy, it seems like there are at least three important contextual factors that could be missed by the recordings of consent that are facilitated by consent apps. The first relates to the *capacity* of the complainant (and indeed the accused). In order to consent to something you must have the capacity to consent. Capacity can be impaired by drugs and alcohol (among other things). A short video recording of someone saying ‘yes’ or a text message of them saying they are ‘good 2 go’ may suppress evidence of capacity. True, someone might appear intoxicated on a video recording, but they may also be quite lucid for the duration of the recording despite their ongoing intoxication. And true, the *Good2Go* app did try to get people to provide evidence of intoxication, but this, of course, could be misleading: intoxicated people are notoriously bad judges of their own capacities. The second contextual factor that might be missed is *coercion*. It is widely accepted that coercion undermines consent. If I say ‘yes’ to sex when you have a gun pointed at my head, my signal is not morally significant. This is an extreme example but it highlights the concern. Coercive aspects of the context in which a recording of consent is provided could easily be missed by both of the consent apps described above. Third, *deception* is also a relevant factor in cases of sexual consent. Many legal systems completely ban deception as to the nature and quality of the act, and deception as to certain aspects of your identity (specifically impersonating someone known to the

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[41] See Pinker, S, Nowak, M. and Lee, J ‘The Logic of Indirect Speech’ (2008) 105(3) *Proceedings of the National Academy of Sciences* 833-838

[42] This is obviously controversial in cases of sexual assault and rape. Reliance on what was previously said and done between two or more parties is dangerous when it comes to interpreting signals of consents. That said, it is undeniably the case that people can create common languages of consent between themselves over time. These languages may rely on indirect forms of communication (i.e. may not involve explicitly stating a desire or wish to initiate sex). The problem with these forms of communication is that they create risk: someone may take the wrong meaning from what was said, which may result in non-consensual sexual contact (i.e. rape or sexual assault). Arguably, you could say that affirmative consent laws try to mitigate that risk by demanding direct and unambiguous forms of communication in the initiation of all sexual encounters. Given the balance of risks outlined earlier on, this risk aversion may be appropriate.

complainant). They also commonly allow for lesser forms of deception to impact upon consent.[43] Additionally, some moral philosophers think that most forms of deception should void consent.[44] While consent apps may prevent some forms of deception – if someone records themselves saying 'Yes I will have sexual intercourse with you' it would be difficult to say that they were deceived as to the nature and quality of the act – they may miss and facilitate others. Someone may not be aware of the precise reasons for why they are recording a signal, for instance. College students are sometimes known to josh around and play pranks on one another. One can imagine someone taking advantage of this tendency to deceive someone into recording consent.

You might argue in response that the decontextualisation fear is easily addressed: simply allow people to provide evidence of the broader context in which the statement was made. If I was joking when I said 'Yes I will have sex with you' because I was responding to your earlier question about the least likely thing I was going to say that evening, then I can provide testimony to that effect. The same goes if I was being deceived, if I was highly intoxicated, or if I was subject to coercion. The problem with this response is that it ignores the distorting effect that the mere presence of the recorded signal might have on both someone's willingness to proceed with a conviction and the interpretation of evidence at trial. Excessive weight is often afforded to some types of evidence over others, both in how people interpret and understand their own behaviour and how it is interpreted at trial. The presence (and expectation of) audio and visual recordings are known to have a distorting effect on how jurors weigh evidence.[45] This distorting effect is likely to be compounded in rape and sexual assault cases where interpretations of evidence are biased by how the inquiry is framed as well as broader cultural factors. Jurors have been known to discount evidence of intoxication

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[43] For example, in England and Wales deception as to nature and quality of the act and impersonation provide irrebuttable presumptions of non-consent under s 76 of the Sexual Offences Act 2003, but other forms of deception can be factored in under the general definition of consent under s 74.

[44] Dougherty, T. 'Sex, Lies and Consent' (2013) 123(4) *Ethics* 717-744. The position is not without its critics. See Rubenfeld, J. 'The Riddle of Rape-by-Deception and the Myth of Sexual Autonomy' (2013) 122(6) *Yale Law Journal* 1372-1443, as well as Dougherty's response 'No Way Around Consent? A Reply to Rubenfeld on "Rape by Deception"' (2013) 123 *Yale Law Journal Online*.

[45] Some of the discovered effects are remarkable. Video evidence and transcripts, even when combined with juror warnings, are often afforded excessive weight in juror deliberations (see: Wheatcroft, JM and Keogan, H. 'Impact of Evidence Type and Judicial Warning on Juror Perceptions of Global and Specific Witness Evidence' (2017) 151(3) *Journal of Psychology* 247-67); Larger images are known to be afforded more weight than smaller images (see: Heath, W. and Grannemann, BD 'How video image size interacts with evidence strength, defendant emotion, and the defendant-victim relationship to alter perceptions of the defendant' (2014) 32(4) *Beahavioral Science and Law* 496-507); and jurors are more likely to hold that someone's behavior was intentional or deliberate if they are presented with video recordings of that person that are slightly slowed down

or other incapacity simply because someone acted flirtatiously or signalled some initial enthusiasm for sexual activity.[46] A number of mock jury studies demonstrate that juror decision-making in sexual assault trials is heavily influenced by 'rape myths'.[47] Examples of such myths include the belief that 'rape requires force', 'people wearing provocative clothing or who are intoxicated are asking for it', 'false accusations are common' and so on. These myths mean that complainants face a significant uphill battle whenever there is a conflict of evidence. So if the evidence of the broader context boils down to he said/she said style testimony, and if the recording of consent is clear, tangible and retrievable, there could well be a tendency to afford it more weight in the proceedings than it truly deserves. When juries are trying to cut through the epistemic fog, they may have a tendency to latch onto anything that seems firm and undeniable.

You might argue that this problem can be mitigated by warning or instructing the jury not to afford too much weight to certain kinds of evidence, and to take into consideration the broader context. But this is unlikely to be effective. Warnings sometimes have the opposite to their intended effect, drawing people's attention to the very thing you wanted them to downplay. What's more, mock jury studies of rape trials suggest that juries struggle with and oftentimes simply ignore judicial instructions about how evidence should be interpreted. Munro and Ellison's study of 160 jurors, watching nine different mock rape trials, is particularly instructive in this regard.[48] In interpreting their evidence, Munro and Ellison argued the juror tendency to ignore instructions was not simply caused by their inability to understand the instructions – indeed, in their studies they took great pains to patiently and

(see: Caruso, E., Burns, Z. and Converse, B. 'Slow motion increases perceived intent' (2016) 113 *Proceedings of the National Academy of Sciences* 9250-9255).

[46] For mock-jury evidence on this score, see Finch, E and Munro, V. 'Juror Stereotypes and Blame Attribution in Rape Cases Involving Intoxicants' (2005) 45(1) *British Journal of Criminology* 25-48; and 'Breaking Boundaries? Sexual Consent in the Jury Room' (2006) 26(3) *Legal Studies* 303-320. Jurors in these studies seemed to routinely overvalue sexually enthusiastic behavior, and discount many factors that undermined consent, and some, when asked to explain their views, even went so far as to state that active use of force to resist a sexual advance would be required to disprove consent. See also the studies by Ellison, L and Munro, V. 'Reacting to Rape: Exploring Mock Jurors Assessments of Complainant Credibility' (2008) 49(2) *British Journal of Criminology* 202-219; and 'Better the devil you know? 'Real rape' stereotypes and the relevance of a previous relationship in (mock) juror deliberations' (2013) 17(4) *The International Journal of Evidence and Proof* 299-322.

[47] Dinos, S., Burrowes, N, Hammond, K., and Cunliffe, C. 'A systematic review of juries' assessment of rape victims: Do rape myths impact on juror decision- making?' (2015) *International Journal of Law, Crime and Justice* 43(1): 36-49.

[48] Ellison, L. and Munro, V. '**Getting to (not) guilty: examining jurors' deliberative processes in, and beyond, the context of a mock rape trial**' (2010) 30(1) *Legal Studies* 74-97; and Ellison, L. and Munro V. '"Telling Tales": Exploring Narratives of Life and Law within the (Mock) Jury Room' (2014) 35(2) *Legal Studies* 201-225.

carefully explain the legal concepts to the jurors – it is, rather, due to the fact that jurors have their own narratives and understandings of sexual assault that conflict with the technical and legalistic approaches. These juror narratives are, again, oftentimes influenced or informed by rape myths and this causes jurors to favour evidence that fits with their preferred mythic narratives. Any juror influenced by such a narrative is likely to afford a recorded signal of consent precedence in their decision-making, regardless of what a judge tells them.

You might argue that this too can be mitigated by applying exclusionary rules of evidence to consent apps. If a jury is going to misinterpret or misweigh the evidence then we can exclude it from the trial. There are already mechanisms in place that allow courts to do this. In the U.S., the Federal Rule of Evidence 403, for instance – which allows a court to exclude evidence if it is likely to have a 'substantially prejudicial' effect – could be used to exclude evidence from consent apps in cases where the judge deems this appropriate. But we should not put too much faith in the power of such exclusionary rules. To make the case for unfair prejudice, a complainant still faces an uphill battle. There is a significant amount of discretion when it comes to the interpretation of this rule. The complainant must convince the court that the prejudicial effect will be substantial. But courts can themselves be influenced by the dominant myths and narratives around rape and sexual assault. They may well discount the suggestion that the evidence is 'substantially' prejducial. Furthermore, it is important to bear in mind that the negative *ex post* effect of the app may not only be felt at the trial stage. There are high attrition rates in sexual assault cases: complaints are made but are never brought to trial. There are a variety of reasons for this, some legitimate and some more questionable.[49] Sometimes it is the complainant that backs down; sometimes it is the prosecuting officials who think the case has a low likelihood of success. In making these determinations, both sets of individuals can be influenced by the fact that they face an uphill epistemic battle: given the epistemic fog of the he-said/she-said scenario and the prevalence of rape myths, they know they will have a hard time convincing a jury that there was a lack of consent without objective evidence of force or coercion. If they are involved in a case in which there is a record of them signalling consent, then even if they have strong countervailing contextualised testimony, and even if there is the possibility of the court

[49] There is some debate here. Some argue that much of the attrition in rape and sexual assault cases occurs early on in the investigation and prosecution. Once a trial is brought against an accused, the conviction rate often holds up well compared to offences. For a sense of the complexity involved in interpreted attrition rates, see Martin-Jehle, J. '**Attrition and Conviction Rates of Sexual Offences in Europe: Definitions and Criminal Justice Responses'** (2012) 18(1) *European Journal on Criminal Policy and Research* 145-161.

exercising their discretion to apply an exclusionary rule, they may be dissuaded from pursuing the case. The only way to completely mitigate against this problem would be to apply a blanket exclusion to the use of evidence from consent apps, but of course such a blanket exclusion would negate the ex post value the apps might have.

You might also challenge the argument I have presented on the grounds that apps do not really change things from the existing status quo. One way of making this argument is to note that the apps would provide evidence of something that is likely to be accepted as evidence by both the accused and the complainant. After all, the apps simply prove that somebody gave a consent signal (sent a text message or said 'yes' into a camera). Once that is entered into evidence, the complainant would have to concede its truth. But they would probably have done that anyway, irrespective of whether there was an app-based recording. They would then have gone on to argue that this particular signal should not be taken as evidence that they genuinely consented because it was negated or undermined by other signals and factors. They still have the opportunity to do this if a consent app is used. Nothing about the basic dynamic of trial or legal proceeding is likely to change. I hope that the arguments I have just outlined cast doubt on this claim. It is true that he-said/she-said dynamic remains, but the existence of the recording could change the balance of power in that dynamic. Historically, this has always been stacked agains the complainant, my argument here is that the recording from the app (ignoring the possibility of recording withdrawal, which I discuss below) tips the balance further in favour of the accused. When there is only testimony on which to rely, evidence of signalled consent (even if conceded) can be more readily ignored or discounted. Prosecutors and complainants might feel that their countervailing testimony will mitigate against the concession. When there is a concrete, tangible recording, the preferred narratives of the decision-maker are more likely to be reinforced. This could, in turn, have a chilling effect on the prosecution of rape and sexual assault as prosecutors are unsure that they can exclude or countermand this evidence in the mind of a judge or jury.

Finally, you might argue that even if what I have said is true, there could be a few cases in which the evidence provided by the consent app will confirm countervailing features of the broader context in which the signal was provided. For instance, there could be cases in which a complainant appears to be heavily intoxicated in the short video in which they said 'yes'. I readily concede this possibility. I would simply argue that in the case of the two apps under

consideration, this possibility is remote – the recordings are short and must fit within the pre-defined parameters of the apps – and so not sufficient to countermand the negative features that I have identified. The only way to increase the likelihood that these apps will provide evidence of the broader context is to make them record more details. I consider this possibility later on.

This leads to the second objection to the ex ante use of consent apps. This one is closely allied to the decontextualisation problem, but raises some distinctive issues. It is widely agreed that consent is an 'ongoing act'.[50] You do not simply consent to sexual relations at a particular moment in time. You have the right to change your mind. You have the right to *withdraw* consent. One obvious concern about consent apps is their ability to facilitate this right. A big danger is that you end up with a recorded affirmation of consent and an unrecorded withdrawal. This gives you something seemingly tangible and retrievable to prove that consent was given and something less tangible for the withdrawal. The *Good2Go* app did nothing to facilitate the withdrawal of consent when it was launched. It included a general warning about the need for ongoing consent but little else. The We-Consent app tried to address this problem by creating additional app-services – What-About-No and I've-Been-Violated – which allowed victims to record withdrawal of consent and, if necessary, to create a post-assault recording. One has to wonder, however, whether these services are sufficient. If someone is acting under conditions of coercion or social pressure, they may not feel able to record a signal of withdrawal of or non-consent. They may worry that once they have recorded consent initially their subsequent withdrawal of consent will not be believed. They may 'freeze' or feel some reluctance/awkwardness about recording consent in the heat of the moment. Again, the research on rape myths and their impact on jury decision-making suggest that jurors often overplay the significance of such events when dismissing rape charges and that victims of rape allocate some blame to themselves in the immediate aftermath.[51]

To be fair, Lissack (the creator of the We Consent app suite) has addressed this objection.[52] His response is complex, but it essentially boils down to the following. He thinks

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[50] On the concept of consent (and by proxy rape) as continuing acts see the case of *Kaitamaki v R* [1985] AC 147

[51] Perriloux, S., Duntley, D. and Buss, D. 'Blame Attribution in Sexual Victimization' (2014) 63 *Personality and Individual Differences* 81-86

[52] Lissack, M 'Foubert's Straw Man - Rejecting false arguments against the We-Consent™ app suite' – available at https://www.linkedin.com/pulse/fouberts-straw-man-rejecting-false-arguments-against-lissack?published=t (accessed 12/12/2016)

that the objection presumes either an 'infantile view' of the victim who is incapable of saying 'no' or a perpetrator who is being physically coercive.[53] He suggests that neither of these scenarios is the 'norm' that the app suite is trying to address:[54]

> *The "norm" is that an encounter occurs between two people who know each other to some degree – who failed to adequately discuss the activities they were about to jointly engage in and who failed to establish a channel of communication during the encounter which was clear to both participants – and where at least one participant desired and began to engage in a behavior which was unwanted by the other participant.*

The purpose of the app, according to Lissack, is to prompt such individuals to be clearer in their communications. In other words, the purpose is to address the ex ante problems of consent, not the ex post problems. As for those rare cases where the victim is incapable of saying 'no' or the perpetrator is being physically coercive, he has the following to say:[55]

> *No smartphone app can deter a rapist who is hell bent on committing a rape with a victim over whom physical coercion has been threatened or expressed…*

And:[56]

> [in the case of someone who is incapable of saying no, proponents of the objection are] *implicitly claiming that once consent is given for anything…the act of giving that consent and allowing it to be recorded is by itself sufficiently psychologically coercive as to remove meaningful free will from the "victim". This removal of free will results in an infantilized victim and unilaterally dismisses the notion that both campus sex education and tools such as the Apps are of any value. Such attitudes may have been the "norm" fifty years ago but they have little place in the world of today's college student. The "victim" has every freedom (absent real or threatened physical coercion) to say NO, to get up, to break away, to reach for a phone or for clothing, and if necessary to SCREAM or deliver a kick to the groin area.*

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[53] Ibid
[54] Ibid
[55] Ibid

Furthermore, he argues that if this really is a problem, it can be corrected by the I've-Been-Violated app. This app:[57]

> *…allows a victim to record what happened and with whom once the victim has reached what is perceived to be a safe place. The existence of such a recording will go a long way to countering any false claim by the perpetrator…*

What are we to make of this response? Two points seem apposite. First, it is somewhat disingenuous to respond to the objection by suggesting that it involves a scenario that lies 'outside the norm' and that the app is really concerned with the ex ante problems of consent in 'normal' cases, not the ex post problems in abnormal cases. It may be true that the intention lies primarily with addressing the normal cases, but the app suite still has a significant evidentiary function in abnormal cases and this will be used by accused parties when it suits their purpose. We shouldn't be aiming to give a physically coercive perpetrator an evidential shield they can use to facilitate rape and sexual assault, even if this is an unintended consequence. Second, to suggest that the objection presumes an 'infantile view' of a victim is unfair. Nobody is claiming that a victim suddenly loses all rationality and autonomy. They are simply suggesting that human psychology is complex and can be influenced by many social factors, particularly in the heat of the moment. For example, a woman who has consented to some sexual activity but not to other kinds may worry that her withdrawal of consent will not be believed if she lives in a community that encourages (implicitly or explicitly) male sexual aggression and female passivity. Furthermore, to suggest that a victim can kick and scream in such a scenario is to surreptitiously reincorporate[58] a force requirement into rape law. If the victim doesn't do any of these things, are we to assume they consented to everything? The same goes for their failure to record a post-assault 'I've been violated' video. If they don't do it, and there is a prior recording of consent, are we to ignore or downplay the absence of a post-assault recording of violation?

It is here that we see how important it is for the functionality of consent apps to intersect with reforms to evidentiary procedures. I would not completely discount the value of recorded consent signals. But they would need to be handled very carefully. If we are

[56] Ibid
[57] Ibid

going to live in an age where recording of this sort becomes common, we need to adopt evidentiary rules that address the strengths and weaknesses of such recordings. We cannot assume they provide knockdown evidence in favour of consent. We need to allow for the possibility of rebuttable or irrebuttable presumptions against the evidence they present in certain cases (e.g. where there is evidence of extreme intoxication). Presumptions of this sort have been implemented in some jurisdictions already and may work to counterbalance biases in how people weigh evidence.[59] Of course, we cannot overstate the likely success of such evidentiary reforms. Given what I have said previously about the prevalence of rape myths and their impact on jury decision-making, great care will have to be taken in the design of the evidentiary rules to maximize their ability to counteract dominant biases.

This brings me to the third objection. This one is slightly more general and less concerned with evidential matters. By creating a record of a decontextualized consent signal, consent apps may add an air of *menace* to sexual encounters that would otherwise be lacking. This could be detrimental to both negative and positive sexual autonomy (i.e. the ability to avoid sexual contact if you don't want it, and to have sexual contact if you do). If you know that there is a prior record of positive consent, you may be reluctant or unwilling to withdraw consent, even if that is your true preference. Consequently, you might be pressured into continuing with something you would rather bring to an end. This impacts on negative sexual autonomy. Likewise, these apps may have an impact on positive sexual autonomy by making people less likely to initiate sexual encounters they would prefer to have, for fear that they couldn't bring them to an end when they wished due to the evidential weight afforded to the initial consent signals in any subsequent dispute.

The seriousness of this objection could be called into question. Some might point to seemingly analogous cases that we do not take to have an impact on sexual autonomy. An anonymous reviewer on this paper suggested that the persuasiveness of this argument is challenged if we replace the word "app" with "condom". While some might refuse sex if their putative partner insists on a condom, this surely doesn't mean that their sexual autonomy is negatively impacted by condoms? There is always the option of not having sex or having sex with the condom. It would seem odd to suggest that autonomy is undermined by this

[58] Of course, the force requirement has never gone away in some jurisdictions. It has, however, been relaxed or reformed in many US states and in England and Wales and Ireland.
[59] Sexual Offences Act 2003 (England and Wales), particularly ss 74, 75 and 76.

insistence. To quote from the reviewer: “Similarly, while some might refuse sex if their partner insists on using the consent [app], this doesn't mean that their sexual autonomy is negatively impacted by the consent app… [U]nless use of the apps becomes required, it is always an option to simply forgo the app and have sex anyways. Though some might insist on using the app, this doesn't impinge others autonomy any more than an insistence on using a condom would.”

I offer several responses. The first is to simply bite the bullet and admit that there is an impact on (positive) sexual autonomy in the condom scenario: somebody is being prevented from having sex that they would like to have because of the insistence on using a condom. Of course, sexual autonomy is distinctive in this regard. If we assume ‘having sex’ requires at least two autonomous parties, it is practically impossible to respect everybody’s positive sexual autonomy while also respecting their negative sexual autonomy.[60] Sexual autonomy is, consequently, frequently impacted. We currently weigh negative sexual autonomy higher than positive sexual autonomy and set-up a system of consent norms that protects negative sexual autonomy more than positive sexual autonomy. This seems perfectly appropriate given the harms of nonconsensual sex, but it does not mean that there is no impact on positive sexual autonomy as a result. More importantly, however, there are important disanalogies between the condom case and the consent app case. In the condom case, there are compelling ethical and prudential reasons to facilitate and encourage condom-use that go beyond mere satisfaction of sexual desire (e.g. it prevents disease and pregnancy): that is to say, there are good reasons to tolerate the impact on positive sexual autonomy. It is less clear that such compelling extraneous considerations arise in the case of a consent app. The main ethical and prudential reason for insisting on the use of the app is to avoid the risk of false accusation. This risk should not be ignored, but it’s not clear that it outweighs the risk of underreporting and underprosecution that could arise if the app is used. Furthermore, using the app could impact on negative sexual autonomy. In this regard, I think the analogy outlined above might miss the point. A better analogy would be the case where someone consented to sex with another on condition that they wore a condom. The other party agreed but condoms were not a deal-breaker for them. They are enthusiastic co-conspirators at that point. Then a problem arises. During intercourse the condom breaks (and this is known to both parties). At that stage, one party would rather that the sex came to an end; the other is

[60] It is logically possible that everyone wants to have sex with someone who also wants to have sex with them, but this is unlikely to be true in reality.

happy for it to continue. The problem is that the party who wants it to end feels somehow obligated to continue since they have already started. This is not an unusual experience.[61] I would argue that feeling as if you are under such an obligation would involve a significant impact on negative sexual autonomy. This is the primary scenario I have in mind when suggesting that consent apps could impact on sexual autonomy. Saying that people can avoid this scenario by having sex without using the consent app doesn't solve this problem, because they were happy to use the app initially. And saying they can simply avoid having sex with people who insist on using the app doesn't address it either because it simply concedes the very point I am arguing: that the apps are likely to do little to address the problems associated with the giving and receiving of consent signals.

This objection straddles the boundary between the ex post and ex ante line, as we will now see.

4.2 - Do they resolve the ex ante problems?

As I noted above, some of the app-makers (particularly the maker of the We-Consent app suite) suggest that their primary concern is with addressing the ex ante problems of consent, particularly in the context of new affirmative consent standards. They suggest that the goal of the app is to provide a contextual trigger for people to have more open and affirmative conversations about sexual consent. The problem with this suggestion is that it is impossible to assess these apps strictly in terms of their ex ante benefits. Since the apps are very clearly designed with the intention of creating permanent records of consent signals, they will necessarily have an ex post evidential function. Consequently, any problems that arise from this ex post evidential function (including all the problems mentioned above) will *cast a shadow* over any ex ante benefits they may have. In other words, even if the apps could encourage people to have more open conversations about sexual desires and to rely upon clear and unambiguous consent signals prior to sexual acitivty, this must be balanced against the fact that the recordings they produce will be decontextualised, may be afforded improper weight in evidential proceedings, could contribute to the high attrition rates in sexual assault cases, may provide a shield to physically coercive perpetrators and may impact upon sexual autonomy. It is very hard to see how the apps could address this problem without simply

[61] These were the essential facts of the charges in Julian Assange rape extradition case: *Assange v Swedish Prosecution Authority* [2011]EWHC 2849

removing the ex post evidential features from their functionality (a possibility I discuss below).

Still, even if we ignore the shadow cast by the ex post problems, there are problems with the putative ex ante benefits. The first has to do with sexual privacy. Most people value sexual privacy. Indeed, it could be argued that privacy is an important aspect of sex. Sex enables a form of intimacy that is unique and special. Arguably, that special form of intimacy is only made possible when the details of the sex (with whom, when and involving what activities) are kept reasonably private. People will always disclose some details to their friends and families, but they will control the degree of disclosure. Furthermore, it is often deemed to be a grave wrong for the details of the activity to be disclosed against someone's will – witness the recent clampdown on so-called 'revenge pornography'. By their very functionality, consent apps create records of sexual activity that are accessible by others. Even if these records are encrypted – and so not mined for details by commercial enterprises – they are potentially hackable. This means they pose a risk to the user that their sexual privacy may be violated at some future moment in time. What's more, this potential violation arises even if the sexual activity associated with the recording was completely unproblematic – in other words even if the app functioned as intended and enabled people to give and receive appropriate signals of consent. Such a violation would be, I argue, intrinsically harmful. It could also have a significant dissuasive effect on people's willingness to use the app, thereby compromising its ability to improve ex ante behaviour.

Another obvious problem is *ambiguity*. The apps may not allow for clear signals of consent to be provided. This was clearly true for the Good2Go app since it used a euphemism ('Good2Go') as a way of communicating consent. Euphemisms may help people to overcome awkwardness, but they are more uncertain in their meaning than direct forms of speech (e.g. 'Yes I agree to engage in the following sexual activity X with you'). If you want people to have more open and honest conversations about sexual desire, then it might be better to facilitate direct forms of speech. The We-Consent app is better on this front since it requires a clear 'yes' (or 'no' as the case may be).

But this links to another problem. Even if the apps encourage you to be clear and unambiguous in what you say, they may stifle the appropriate conversations by giving people limited conversational options. This was clearly the case with the *Good2Go* app since it gave

you only one way of asking for consent and three ways of responding. We-Consent is also limited, requiring you to simply state 'Yes' or 'no' to sexual relations with a stated individual. Sexual needs and desires are more complex than simple yeses and noes presume. These limited options may not allow you to truly express all that needs to be expressed. This might be particularly true when the apps are used by their target audiences (inexperienced college students) as a proxy for the awkward conversations they should be having. In those cases, they may actually serve to discourage people from having (or seeking) that longer more meaningful conversation.[62] And this risk does not only arise in the case of the inexperienced college student. Open and frank conversations about sexual needs and desires are a rare even in the general population (who might also be users of these apps or similar services): many people feel awkward expressing their sexual preferences and might retreat to the mediation provided by the apps.

Another problem is that apps may bias the outcome of any conversation by presuming certain defaults. This criticism has been thrown at Good2Go in particular. The response options it gave were biased in favour of consent (two out of the three involve affirmation). And given known biases for extremeness avoidance this may result in more people choosing the intermediate option ('Yes but…') than is truly desirable. Also, in its measures of sobriety, it assumes that you have to be 'pretty wasted' to be unable to consent. The validity of intoxicated consent is contested, but this may err too much in favour of the possibility of intoxicated consent.

Finally, you have to confront the fact that these apps are largely geared towards men (still generally viewed as the 'initiators' of sexual encounters), particularly young mean in colleges. Michael Lissack, the creator of We-Consent, is explicit about this when he describes athletic teams (who he assumes to be male) and fraternities as the target audience for his app.[63] This is unsurprising given that the the evidential functionality of the apps is (arguably) geared toward protecting men from 'false' accusations of sexual assault and rape. As such, you could argue that these apps have limited benefits in the ex ante phase of sexual relations: they may largely serve to reinforce patriarchal attitudes towards sexual assault and

[62] That said, at least Good2Go tries to facilitate this by including the 'Yes but…' option, though as others have pointed out it might have been better if it was simply a 'we need to talk..' option http://techcrunch.com/2014/10/01/good2go/

[63] Bernhard, M. 'When it comes to preventing sexual assault, should there be an app for that?', *The Chronicle of Higher Education* 11 June 2015, available at http://chronicle.com/article/When-It-Comes-to-Preventing/230823/

rape. Empowerment of female sexual agency does not seem to be to the forefront of the app developers minds.

All of these issues undermine the value of the aforementioned consent apps, particularly when when assessed relative to the emerging status quo regarding sexual consent and its normative enforcement. It is certainly true that there are taboos against having open and honest conversations about sexual needs and desires. But one could argue that affirmative consent, when combined with educational classes on what consent really entails, are a better solution to the problems that typically arise. The affirmative consent laws set the standards in reasonably general terms, insisting on clear and unambiguous signals, but leaving it open as to what that requires. The consent classes then provide young adults on guidelines as to what is required. Those classes could help these people to identify and challenge prevailing rape myths, and instill a more positive culture around sexual agency. The classes wond't cast the same ex post shadow that the consent apps do, they won't require you to sign up for potential violations of sexual privacy, and they won't serve as proxies for the open and honest conversations that people find awkward. Instead, they will encourage people to confront the awkwardness head on. This is more empowering of sexual agency than the two apps (or app suites) described above.

Of course, the combination of affirmative consent standards and consent classes is not a panacea. For one thing, the classes may not be available to all. At the moment, they tend only to be made available to college students, but clearly the problems of sexual assault and rape do not begin and end at the university walls. A more comprehensive campaign of public education might be needed. Furthermore, any new consent standard combined with an educational campaign would face considerable challenges, both in terms of their practical implementation and psychological sustainability. If the evidence I introduced earlier on is any guide, rape myths and biased cultural attitudes are widespread and can remain widespread even after legal standards are changed.[64] But we probably should not expect there to be a panacea when it comes to addressing the issues around sexual consent. There are inevitable tradeoffs and compromises to be brokered whenever we intervene in this domain. This is something I elaborate on in the next section.

[64] The mock jury trials by Finch and Munro and Ellison and Munro (fn 46) are discouraging in this regard.

5. Could there ever be an app for that?

The analysis to this point has focused on the problems arising from two particular consent apps. But as I noted earlier on, it is important not to get too bogged down in the details of these particular apps. Apps of this sort pass in and out of existence on a regular basis. The important question to ask is whether there could ever be an app that provided significant benefits to those interested in addressing the problems of rape and sexual assault. I argue that this is unlikely, though clearly some apps will be better than others in this regard.

We can see this by doing two things. First, by diagnosing all the problems with the aforementioned consent apps. This will give us a checklist of hurdles than any future consent app will need to overcome. Second, by asking what it is that an app can do? Let's look at both issues in turn.

There are three main problems associated with consent apps that emerge from the preceding criticisms. First, there is the *decontextualisation problem*: apps record signals of consent but not the broader communicative context in which those signals were given. This is probably the main problem with their evidential use as those signals may trump more contextually sensitive bits of evidence. Second, there is the *'shadow of the ex post' problem*: the prospect of a permanent record of the consent signal casts a shadow over how someone approaches any putative sexual interaction. As noted above, the record of consent can be used to thwart an individual's sexual (and other) interests. It may make them less willing to engage in sexual acts that they desire and less able to withdraw from those they do not. It may also undermine their sexual privacy. Finally, there are various *biasing problems*. The app may limit or encourage certain forms of communication, it may set the default against or in favour of giving consent, and it may appeal to one set of sexual stereotypes over another. These create certain biases in the technology that may not adequately address the risks associated with nonconsensual sex. Ideally any future consent app should do a better job of addressing these three sets of problems.

Are apps up to the task? Well, what is it that apps can do? As mentioned in the intro, the existing consent apps are software programs that run on smartphones or, potentially, other wearable devices. I assume this will always be true of anything worthy of being called a 'consent app'. The software programs on such devices have several basic levels of

functionality. They can *collect*, *share*, *store* and *distribute* information. When combined with data analytics tools they can produce some novel forms of information, spotting patterns in the data they collect, and potentially making predictions and recommendations based on this information. The apps described above essentially do all these things. They collect information (signals of consent) and they then store this information. They share information with the users, e.g. Good2Go shares some information about the nature consent, as does the We-Consent app suite. They sometimes try to make predictions or recommendations to their users, e.g. by encouraging them to give certain signals or not. The We-Consent app suite includes some facial and voice-recognition technology that spots patterns in the data it collects. It is reasonable to suppose that future apps will make use of these different types of functionality, though they may do so in more elaborate and sophisticated ways.

Taking this onboard, will apps be created that overcome the three hurdles described? It is certainly possible for apps to address the biasing problems. To avoid setting the wrong defaults or encouraging risky sexual activity, app developers will simply need to be more sensitive to the ethical and behavioural effects of their services. A consent app could be highly risk-averse in its functionality: only recording an affirmation of consent under limited circumstances and automatically overwriting that record whenever a contrary signal was detected. The apps could also provide a positive educational function, educating users about rape myths and sexual stereotypes, for example. Indeed, it is relatively easy to imagine educational apps that complement or offer an alternative to the consent classes that are currently being offered by universities around the world.[65]

It is more difficult to see how apps could overcome the other two problems, particularly given that they are in tension with one another. To address the decontextualisation problem, consent apps could provide more contextualised evidence by providing fuller recordings of what happens before, during and after sexual activity. Total surveillance (i.e. complete audiovisual records), for instance, would provide much of the missing context described above.[66] But total surveillance would make the ex post uses of consent apps cast an even bigger shadow. The potential harm to sexual privacy, for example, would be greater, as

[65] The consent classes currently on offer may or may not be appropriate and may or may not involve biasing problems of their own. The argument here assumes such educational offerings are less biased, but that assumption may be incorrect.
[66] It would not eliminate all problems associated with the interpretation of consent signals. There would still be problems with indirect or ambiguous forms of communication.

would the impact on sexual autonomy. People may be discouraged from sexual activity if they thought a permanent record of this sort was going to exist. The more traditional approach – of competing testimony – for all its flaws may represent a better compromise on the tradeoff between evidential reliability and sexual autonomy/privacy, especially if it is supplemented with alternative evidential presumptions. Alternatively, you could remove the shadow of ex post usage by eliminating the recording function of consent apps. This might turn them into pure educational devices, explaining our prescriptive standards of consent to users, and encouraging them to engage in more open and unambiguous conversations about sexual needs and desires, but doing little else. It may, however, prove difficult to remove the shadow completely. It seems to be almost inherent in the functionality of information communication technology that it creates records of user data[67] and if all the apps do is provide information and conversational prompts, we would have to wonder about their need at all.

In the end, then, it seems like there may never be an app that makes a significant contribution to the problems of sexual consent. The existing status quo is non-ideal, to be sure, but educational interventions, coupled with reforms to legal definitions and standards may be preferable to the use of information communication technology. We have to acknowledge the tradeoffs when it comes to the problems of consent. Intervening to address one problem can often impact negatively on another. Positive and negative sexual autonomy are always, to some extent, in tension with one another. App-based technologies, for all their benefits, may require too much compromise on important social values such as sexual privacy and autonomy to be worth the risk.

[67] The clearest expression of this idea comes from Kevin Kelly *The Inevitable: Understanding the 12 Technological Forces that Will Shape Our Future* (London: Viking Press) who suggests that 'tracking' is just an essential feature of these technologies.