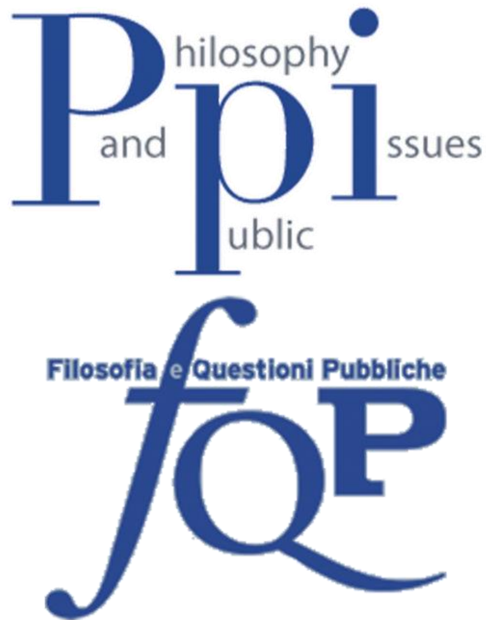
SYMPOSIUM
ENHANCING LOVE?



WHAT IS LOVE? CAN IT BE CHEMICALLY MODIFIED? SHOULD IT BE?

REPLY TO COMMENTARIES

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What is love?
Can it be chemically modified? Should it be?
Reply to commentaries

Brian D. Earp and Julian Savulescu

We are grateful to Robbie Arrell, Lotte Spreeuwenberg, Katrien Schaubroeck, Allen Buchanan, and Mirko D. Garasic for their commentaries on our recent book, *Love Drugs: The Chemical Future of Relationships*.[1] To keep our reply focused, we will address just some of the main points from each paper. We will also try to keep the conversation going by pushing back on certain claims or elaborating on valuable insights raised by our colleagues. We begin by exploring what love is and whether it can be chemically modified. We then focus on questions about the ethics of attempting such modification, both at the level of the individual or couple and at the level of society. We conclude with some summary observations and big-picture reflections about the future of this debate.

[1] See Earp and Savulescu 2020a. The UK version is *Love Is the Drug: The Chemical Future of Our Relationships*, published by Manchester University Press. For a short précis of the book see Earp and Savulescu 2020b. Thank you to Sven Nyholm, Joan Ongchoco, Josh Knobe, Robbie Arrell, Elena Grewal, Mario Attie Picker, David Yaden, Margaret Clark, and Moya Mapps for valuable feedback on an earlier draft of this paper. Please note that we will mostly be using the singular 'they' construction throughout, for reasons discussed in Earp 2021.

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I

What is love and can it – even in principle – be affected by chemicals? Reply to Arrell

We will start with the piece by Arrell,[2] since it focuses on foundational questions about the metaphysics of love and the concept of 'love-altering' drugs. Arrell accepts that many currently existing drugs – chemical substances often used as medications – can have important effects on romantic relationships broadly construed. Arrell denies, however, that such drugs affect *love*. To evaluate this claim, we will need an account of love that both Arrell and we can agree on, so as to avoid talking past each other (if we claim that drugs can affect love and take 'love' to mean X, whereas Arrell denies this but takes 'love' to mean Y, we might well have a dispute, but it would semantic not substantive).[3]

Helpfully then, Arrell proposes an account that is compatible with our view; we will adopt it for the sake of argument. An important feature of this account is that love requires *care* in a sense that needs some teasing out. We will start by saying what we mean by care before turning to Arrell's account and critically comparing the two.

The role of care in love

Here is what we said about care in our book. We asked readers to consider the view that true love, whatever else it may require, "requires genuinely caring about (and trying to promote) the other person's well-being as an end in itself."[4] In order to care about someone in this way we suggested that a person would have to be,

[2] See Arrell 2020.

[3] For a recent discussion of substantive versus semantic disagreements about the ordinary concept of true love, see Earp, Do, and Knobe 2021.

[4] From Earp and Savulescu 2020a, 59.

at a minimum, "seriously invested" in the other's feelings and desires, fundamental preferences, wishes and dreams, and so on. Finally, we proposed that if a drug made it so that your "very capacity" to be moved by your partner's feelings (etc.) was "sufficiently degraded … over a long enough period of time" – so that you were not, in fact, disposed to try to promote their overall well-being – then the drug would have meaningfully changed your love for your partner, "potentially to the point that it no longer counts as love at all."[5]

We argued that there may in fact be such a drug – or class of drugs – namely selective serotonin reuptake inhibitors or SSRIs, which have been documented to have effects along these lines (importantly, we also called for further research into these effects so as to better understand them).[6] Our thinking was as follows: since SSRIs are the most commonly used drugs to treat depression, which is itself quite common, if they *are* capable of affecting love in such a meaningful way, we should be alert to this possibility and study it carefully.

Now we get to the potential disagreement. Arrell accepts that the effects of SSRIs on romantic relationships might indeed be bad or even devastating,[7] and he acknowledges that this prospect is worthy of sustained ethical analysis of the kind we try to offer in

[5] *Ibid.*, 60.
[6] See, for example: Opbroek et al. 2002; Bolling and Kohlenberg 2004; Fisher and Thomson, Jr. 2007.
[7] As we explore in the book, they can also be *good* for some relationships, for example, when they effectively cure the symptoms of depression in one or more partners, where the depression itself was making the relationship worse off. One and the same drug can have very different effects on different individuals and couples depending on what they are dealing with, the dose of the drug, whether it is effective along the intended dimensions, what the side-effects are, and so on.

our book. What he denies is something more abstract and conceptual: he denies that SSRIs can affect *love* – as it were, 'itself.' To get a handle on what is at stake in this distinction, we will now sketch out the account of love adopted by Arrell, paying close attention to the role of 'care' as he conceives it.

Arrell's counterfactualist account: love as robustly demanding

Arrell draws on Philip Pettit's view of love as a robustly demanding good.[8] A robustly demanding good – or 'rich' good, to use Pettit's shorthand – involves a disposition (i.e., of a person) to reliably provide certain 'thin' goods (roughly, benefits or resources) to another person across a range of scenarios, including some that may not actually materialize. Care, on this account, is one such 'thin' good. As Arrell puts it: in order for you to enjoy the rich good of my love, it is not enough that I provide you with the thin good of my care in the actual world, as things stand. Rather, it must also be the case that I am so disposed that I would continue to provide you with such care, among other thin goods, "even were you/I/our circumstances somewhat altered."[9]

The motivating idea here is something like Shakespeare's admonition that "love is not love which alters when it alteration finds."[10] In other words, true love is not just a feeling, which may be fleeting, but is rather something more like a trait or orientation toward the other that is rooted in something much more stable. So, for example, if I profess to love you, but I would in fact abandon our relationship were you to lose your wealth or beauty, say, then it seems right to conclude that I do not really love you after all. More likely, I am only superficially into you, chasing after

[8] As described in Pettit 2012; for a critique see Nyholm 2018.
[9] From Arrell 2020, 48-49.
[10] From *Sonnet 116*.

your money or good looks. So, on this view, for something to count as love, even in the here and now, it must be the case that it *would persist* despite various potential changes in the beloved – or the lover, the state of the world, etc. – whether or not those changes actually happen.

We'll assume this basic picture is correct. However, when determining whether I truly love you, it is one thing to ask if I would leave you for superficial reasons, like those we have just considered; it is another thing to ask if I would leave you because, for example, you became abusive toward me or you constantly violated my trust. So, let's assume that although my love for you must not alter when it finds *certain kinds* of alterations, there are at least some ways in which things might be different that could justify my ceasing to provide you with care, without this nullifying the current reality of my love.[11]

The challenge, then, is to identify the *range* of possible scenarios – or *ways* in which you/I/our circumstances might be altered – across which I would, hypothetically, have to continue to provide you with the thin good of care for my 'rich' disposition toward you to count as truly loving.

We are okay with this general framework. But even within the framework, there is one point on which we and Arrell seem to differ, and that is on the concept of care. Notice that Arrell describes care as a 'thin' good: that is, as a kind of *benefit* – a thing or resource I might 'provide' you with (as he often puts it). Let's call such resource-care 'caring behavior' to keep things straight. Importantly, that is not how we conceived of care in our book.

[11] As Amelie Rorty has written, "even a true historical love might end in dissolution and separation. That it did end would not prove that it had not existed" (Rorty 1987, 404).

Rather than describing care as a resource or behavior, we wrote of 'caring about' one's partner and being 'invested' in their needs and desires so as to try to promote their well-being non-contingently: that is, for its own sake rather than to get some benefit in return.[12]

You can think of 'caring about' someone in this sense as having a *caring disposition* toward them – from which, of course, caring behavior will often flow. (On this view, just to be clear, having a caring disposition toward someone is a necessary, if insufficient, condition for love. Romantic love, at least, might also require other things: for instance, a disposition to be sexually attracted to one's partner across a relevant range of circumstances.)[13]

Our suggestion, then, was this: if one's very capacity to care about one's partner, in our dispositional sense, were sufficiently weakened by a drug, one's love, being at least partly constituted by this capacity, will by definition have been *affected* in some way (note: a relatively weak claim). We also proposed that if this capacity were weakened enough, and for a long enough period of time, it could potentially become the case that your disposition toward your partner no longer counted as love (a relatively strong claim).

To summarize, when we invoked the concept of care it was precisely the disposition to be "appropriately motivated"[14] to further the beloved's fundamental interests (including by providing caring behavior when suitable) to which we were intending to refer. And if a drug can dampen *that*, as it appears that SSRIs at least sometimes can, we think this should be enough for the weak claim (i.e., that drugs can affect love, if not perhaps extinguish it altogether). Later, we'll see if we can get to the strong claim, too.

[12] Similar to the use of 'care' in Clark, Earp, and Crockett 2020; Earp et al. 2020.
[13] For a related clarification, see Chappell 2018.
[14] From Earp and Savulescu 2020a, 59.

The chemical modification of care, part one: care as 'caring behavior'

Having now clarified that it was this dispositional account of care we had in mind for the book – and given the live possibility that this *disposition* could be affected by drugs – it seems to us that some of Arrell's intended counterexamples to our account, although admittedly humorous, nevertheless fall a little flat. Consider this one, as a warm-up:

> *The Nap.* Your partner: "Would you still give me the same quality of care that you do now, if you were not awake (as you are actually), but sleeping?" You: "Errrr, no!?" Your partner: "I knew it! You awful swine! You don't love me at all!"[15]

Arrell's point, as we understand it, is that it simply wouldn't be reasonable to expect me to provide you with high-quality *caring behavior* (to use our proposed terminology) if I happened to be unconscious because I was, for instance, taking a nap. In other words, being unconscious, on Arrell's view, is clearly at least one of the scenarios, possible worlds, or ways in which "you/I/our circumstances might be altered" across which a person does *not* need to provide care – in the sense of caring behavior, a 'thin' good – for that person's 'rich' disposition toward the beloved to count as love.

We do not disagree. But again, we were thinking of care as a relational disposition and a key ingredient of the 'rich' good of love, rather than as a 'thin' good or resource that might itself be provided (or 'given' in the language of *The Nap*). As we see it, the logic of care in the dispositional sense operates over at least three variables – namely need, ability, and responsibility, as we will explain in a moment – and we propose that understanding this logic can help

[15] From Arrell 2020, 54.

us make sense of exactly *why* it is unreasonable for your partner in *The Nap* to conclude that you don't really love them.

Imagine two lovers who care about each other, in our sense, very much. If the care is genuine, it should reflect or respond to: (1) the type and magnitude of the other's needs, where a need is simply anything that is instrumentally necessary to secure the person's well-being, (2) the strength of one's ability to meet the other's needs without too severely compromising one's own well-being in the process,[16] and (3) the degree of responsibility one has – or has taken on – to try to secure the person's well-being (i.e., by meeting their needs). In short, to have a caring disposition toward someone, on this view, is to be disposed to try to meet their needs to the best of your ability (without expecting specific benefits in return), in proportion to the degree of responsibility you have for promoting their overall well-being.[17]

Now, suppose that your partner has a need for care in Arrell's sense – that is, a need for caring attention or behavior – and you just so happen to be taking a nap. Well, given that you are asleep, you obviously are not *able* to 'provide care' right now, and so you do not violate the logic of a caring disposition, as per (2). On the other hand, if you had an inexcusable, lazy habit of napping all day

[16] Think, perhaps, of *The Giving Tree* by Shel Silverstein, which has been criticized for positively portraying a supposedly 'selfless' love that should really be seen as a – troublingly gendered – abusive relationship in which one party exploits the other. See, e.g., Manne 2017.

[17] Note, this account is indifferent as to whether the responsibility has come about by choice/commitment or by circumstance. For a more formal description of the account, see Earp et al. 2020. There, 'care' is described as a *relational function* which helps solve certain recurring coordination problems of human social life, where these problems are ultimately posed by interpersonal dilemmas related to survival and reproduction. This sense of care is based on Bugental 2000; Clark and Mills 1993; and Clark, Earp, and Crockett 2020.

long, even when you knew your partner was relying on you for help, and as a consequence of this, you failed to meet your *responsibility* to address your partner's needs, your partner likely would have a legitimate complaint, as per (3). Given that, on the view under consideration, a disposition of care is necessary for love, it follows that a sufficiently serious breakdown in this disposition corresponds to a breakdown in love.[18] Accordingly, we think that your partner in this scenario would be justified in saying something like the following: "If you truly loved me, you would make a point of being awake long enough to actually be there for me when I need you." Arrell, we assume, would agree.

Now consider a harder case:

> *Depression.* Your partner: "Would you still give me the same quality of care you give me now, if you were not in good mental health (as you are actually), but clinically depressed and under the influence of SSRI medication that made it so you couldn't give me the same quality of care you give me now? You: "Errrr, no!?" Your partner: "I knew it! You awful swine! You don't love me at all!"[19]

Again, Arrell's point is that it just isn't reasonable to expect your partner to provide you with high-quality caring behavior if your partner is clinically depressed, is taking medication to treat the depression, and, on account of the medication or its side-effects, is not *able* to do so. In other words, Arrell seems committed to an 'ought implies can' constraint on the robust demands entailed by love. That seems right to us. Indeed, such a constraint follows also from the logic of care, which, likewise, has an 'ability' condition. So, let us go ahead and assume that, despite not being *abl*e to provide you with caring behavior due to the side-effects of their

[18] A similar view has been defended by hooks 2000 among others.
[19] From Arrell 2020, 55.

medication, your partner's caring disposition toward you is still maintained under these conditions. In other words, all else being equal, it could still be right to say that they love you.

Even so, we suggest, the situation described in *Depression* is nothing short of tragic. Let us embellish. We have stipulated that your partner in this case does indeed maintain their caring disposition – they are, in some deep sense, motivated to at least try to meet your needs – but because of a drug they must take in order to ward off their depression, they cannot, as it were, follow through on this motivation. For example, when you come to them for emotional support because a friend of yours has fallen seriously ill, your partner can see that you are worried, and as a consequence, they desire and intend to comfort you. But because their medication has so dulled their emotional responsiveness (a known side-effect or risk of SSRIs), their attempts at consolation fail. Perhaps their words seem hollow, almost forced – like they're reading from a script. Far from helping, their robotic performance of sympathy only seems to make things worse.

You know your partner is trying their best. You appreciate the effort. And they feel awful about their inability to respond to your emotions in a way that makes things better. Before they started on the medication, as you both remember, they could cheer you up without a problem. But without the medication – which we will suppose they must now take indefinitely – your partner is unable to function in most other areas of life. So, you adapt. When you need comforting, you turn to others. You no longer rely on your partner for emotional support. You wish things were different, but it is what it is.

To reiterate, along with Arrell, we think that in such a case you could reasonably believe that your partner still loves you but is simply unable to *express* or *manifest* that love by providing you with caring behavior. It is tempting here to think of such expressions

as: "Deep down, they still love you; they just can't show it very well because of their condition." It is a heartrending situation. Nevertheless, we are prepared to agree that, although the drug has diminished an important aspect of your romantic relationship, it has not in fact diminished your partner's *love*.

The chemical modification of care, part two: care as 'caring disposition'

But now suppose that the effects of the drug are – or could reasonably be conceptualized as – somewhat different. Suppose that the drug doesn't just block your partner's ability to provide you with high-quality caring behavior (as in *Depression*). Suppose instead that the drug has a more direct effect on your partner's caring disposition. In particular, suppose that it undermines your partner's ability to 'care about' your feelings, in our sense, in the first place. Suppose it saps their motivation even to try to promote your well-being. Suppose they become indifferent to your needs.

We can imagine that Arrell would still reject this case as an instance of a drug affecting love. If it were *not* for the drug, Arrell might say, your partner would still have a caring disposition, and that counterfactual is all that is needed.

Perhaps. But try to put yourself in this situation.

Suppose you decide to continue in the relationship with your partner for as long as you can. Although it is almost completely one-sided now, you attend to their needs to the best of your ability. You love them, after all, and you have taken on a significant amount of responsibility to promote their well-being (through thick and thin). Perhaps you know, or fervently hope, that if it were not for the medication, your partner would at least be *motivated* to do the same for you. But you can't live on counterfactuals forever. Day after day, not only does your partner fail to engage in caring behavior, however ineffectually; they also seem to have lost their

caring spirit. When you are sad, for example, it is not that they try and fail to comfort you; it is that they don't even seem to try. For all that you can see, your sadness doesn't move them.

Suppose it gets to the point where you say to yourself: "Although it's nobody's fault, and I understand it's likely due to the medication they're taking, I just no longer feel that my partner actually loves me." Our point is, even if your partner would, hypothetically, be concerned about your emotions if not for the medication, this doesn't invalidate your belief that – in the actual world – their love for you has in fact faded. Or suppose that your partner says: "I truly believe it's ultimately because of my medication, which I wish I didn't have to take – but I'm sorry, I just don't love you anymore." We don't think your partner would be making a conceptual error or a mistake about ontology.

To summarize, we can compare two cases. In one case, you ask your partner if they would continue to *provide you with high-quality caring behavior* if, tragically, they had to take a drug indefinitely that disabled them from providing such behavior. With Arrell, we think that if your partner said "No," this would not mean that they don't really love you. Moreover, we think that, if this situation were to materialize, it could still be reasonable to conclude that your partner loves you, but is simply unable to express or manifest that love in a particular (albeit significant) way.

In the other case, you ask your partner if they would continue to *have a caring disposition toward you* – that is, be invested in your feelings and desires, motivated to promote your well-being, and so forth – if, tragically, they had to take a drug indefinitely that disabled them from 'caring about' you in the sense we have discussed. If your partner says "No," we don't think this means that they don't really love you *now*. But, if this situation were to materialize, we *do* think it could be reasonable to conclude that,

tragedy of tragedies, your partner's love for you has in fact been caused to fade.

Concluding thoughts

So this is what we'd like to suggest. If it turns out that SSRIs, or any other class of drug, can in fact bring about such an effect – if they can modify not just your caring *behavior*, but also your caring *disposition* – we think we would be entitled to the 'strong' claim too. That is, we think it would be conceptually defensible to conclude that drugs can not only 'affect' love (in a weak sense – in terms of the quality of its expression, for instance) but also in some cases alter its very existence.

What are the implications of this discussion? If research into the interpersonal effects of common medications or other drugs is expanded, as we call for in the book, we hope this exchange with Arrell will be of some use. What it shows is that studying the effects of drugs on high-level aspects of relationships is only part of the puzzle. These effects also need to be mapped onto various philosophical models of love. In other words, we will need to clarify not only what is ethically at stake for the flourishing of different kinds of relationships when drugs are added into the mix, but also what is conceptually at stake for our understanding of love.

II

Love, authenticity, and context: Reply to Spreeuwenberg and Schaubroeck

Like Arrell, Spreeuwenberg and Schaubroeck raise conceptual questions about the nature of love. As a part of this, they too put pressure on our claim that – depending on how one conceives of love – certain effects of SSRIs or other drugs could be interpreted

as love-diminishing. For example, they ask: "What if someone would insist that he still loves his child or partner, but is too depressed to show it? Arguably some will think it is harsh to deny the depressed father the capacity to love."[20]

We interpret Spreeuwenberg and Schaubroeck here as offering a similar argument to that of Arrell, which we addressed in the previous section. However, they also raise an alternative interpretation which seems consistent with our view: namely, that it could still be reasonable to deny the existence of love in certain cases even if – in the absence of a drug or medication – the alleged lover *would have* maintained a caring disposition toward the beloved and/or engaged in caring behavior.

To see this, consider the case of a child whose depressed father does not show him any care. Let us now suppose that the lack of care is due to the depression or associated medications, rather than to negligence. Even so, Spreeuwenberg and Schaubroeck claim, one could argue that it is unfair or misleading "to console the child that his father still loves him when there is no evidence of it."[21] In our modified *Depression* case, above, we made a similar point. What these examples highlight (among other things) is the need to consider the perspective not only of the alleged lover, but also of the one they claim to love, when deciding whether a drug has affected love.[22] We will return to this point a little later on.

Another thing to consider is *how* a drug might affect love. So far, we have explored the idea that SSRIs can affect love by sometimes causing it to fade. But what about the use of drugs to bolster love, as in the case of MDMA-assisted couples therapy?

[20] From Spreeuwenberg and Schaubroeck 2020, 71.
[21] *Ibid.*
[22] See Pettit 1997 for a description of the way in which partners in love may (need to) have a 'shared awareness' of both loving and being loved by the other.

That was the focus of Chapter 6 of our book, and it raises classic concerns about *authenticity*. To address these concerns, we will start by reviewing what we wrote about authenticity in the book before turning to a counterargument given by Spreeuwenberg and Schaubroeck.

Love, drugs, and authenticity

In writing our chapter on MDMA-assisted couples therapy, we anticipated that some readers might doubt the authenticity of a romantic connection whose causal history includes a drug-mediated experience. In fact, when we hold workshops or give lectures on this topic, this is the number one response that we hear. "If you have to take a drug to feel love for your partner, how can that love be real? Isn't it just an illusion – some kind of pseudo-love that's coming from the drug, not *you*?"

To show our sympathy for this position in the book, we began by acknowledging that MDMA-inspired 'love' can indeed be inauthentic (as can 'love' inspired by other factors, like lust or a desire to be famous). We then proposed that initial research into the matter should focus, not on sparking new 'love' between relative strangers, but on maintaining or restoring "an existing bond – one that is already founded on an authentic connection between partners."[23] After all, we reasoned, if you are currently "in a relationship with someone, and you have had time to consider your shared values, the strengths and weaknesses of your partnership, and the pros and cons of trying to improve your relationship with or without drug-assisted psychotherapy, then there would be less risk of making unrealistic or inauthentic

[23] From Earp and Savulescu 2020a, 95.

decisions."[24] We argued that under such conditions, any apparent insights into yourself or your relationship that might be facilitated by an MDMA-assisted therapy session would have a better chance of being genuine, rather than illusory.

To see how this might work, imagine that you decide to go to therapy – albeit traditional 'talk' therapy without the use of any drugs. Your goal is to become a better partner within your romantic relationship. Suppose that, by working through various hang-ups, confronting childhood traumas, disarming unhelpful defense mechanisms, and learning to take your partner's perspective more seriously, your relationship undergoes a positive transformation. Now suppose that your friends say, approvingly, "You seem like a completely different person!"[25]

In such a case, we argued, although major changes would have occurred, both to yourself and to the relationship, these changes wouldn't necessarily be inauthentic.[26] In fact, if anything, you might come to believe that your defense mechanisms, childhood traumas, and so on, were impediments to authenticity, and that the therapy

[24] *Ibid.* As we go on to say, however, "Even if a relationship starts with an inauthentic falling-in-love, an authentic love may still develop over time as shared interactions, conversations, and experiences combine to build a unique foundation."

[25] There is an analogous phenomenon in some cases of deep-brain stimulation, where a person may undergo major, albeit positive, changes, and see themselves as having 'finally grown into their true self' rather than as occupying a technologically-mediated (hence) inauthentic identity (Nyholm and O'Neill 2016; Tobia 2016).

[26] We were drawing on some other work of ours in which we found that positive changes to a person's moral character were less likely to be seen as disruptive to their identity than negative changes, whether or not a drug or medication was involved (Earp et al. 2019).

helped you get in touch with your true self.[27] Likewise, we suggested, "if you started feeling and acting more loving toward your partner"[28] as a result of the same therapeutic experience, these feelings and behaviors should not be dismissed as inauthentic simply because they are different from what you felt or expressed before.

As a final step – based on the extensive research we reviewed in the chapter – we argued that MDMA, when administered by a trained professional in an appropriately supportive context, seems to *facilitate* the typical aims and intended outcomes of classical 'talk' therapy. In other words, rather than inducing inauthentic thoughts or behaviors, it seems to enhance the therapeutic process as it is traditionally conceived. For example, by temporarily disabling hair-trigger fear responses to traumatic memories which a person would otherwise avoid, or be unwilling to verbalize, MDMA can help a person finally deal with the trauma rather than indefinitely suppress it. So, we proposed, if 'traditional' therapy can induce changes in a person or relationship that are not necessarily inauthentic, and if MDMA-assisted psychotherapy can help to facilitate those very same sorts of changes, the latter should not be assumed to be inauthentic, simply because a drug was involved.

Referring to this argument, Spreeuwenberg and Schaubroeck raise what they describe as a "counterargument to the idea that drug induced loving behavior should be seen as authentic."[29] They ask us to suppose that a drunk person at a bar is flirting with

[27] For present purposes, we are not committing ourselves to any particular view of what a person's 'true self' might be, or whether there is such a thing. For recent work on the concept of a true self in ordinary language, see De Freitas et al. 2018; Newman, Bloom, and Knobe 2014; Newman, De Freitas, and Knobe 2015; Strohminger, Knobe, and Newman 2017.
[28] From Earp and Savulescu 2020a, 97.
[29] From Spreeuwenberg and Schaubroeck 2020, 71.

someone, so that, in the moment, the flirter starts to feel and act "more lovingly" towards the object of their flirtation. One could argue, they say, that the drug in this example – namely, alcohol – "has helped to reveal the flirter's authentic love." But they caution that the momentary "lovely behavior" of the flirter is not in fact enough to prove this. Rather, other factors would also need to be taken into consideration, such as: "Is the supposedly authentic love of the flirter reliable? Is the flirter really focusing on you or are you just another passerby on [whom] the flirter can focus their feelings and behavior? And how do the two of you relate to each other? What is socially expected of the both of you in this moment? How do the social groups to which you belong relate to each other?"[30]

These are all good questions, at least some of which, we agree, would need to be asked and answered in order to meaningfully evaluate the flirter's supposed love. In fact, we made a similar point in the book. As we noted in our own discussion of alcohol-fueled flirting, which we framed as a mutual interaction, it might well turn out that the parties "have nothing in common and this becomes obvious" once they are sober. "Context matters," we stressed. For example, "your mind-set, the setting, the other people involved, and a whole lot else have to coincide and interact in the right way."[31] In any case, the drunk flirter scenario raised by Spreeuwenberg and Schaubroeck is not a "counterargument" to our example of MDMA-assisted therapy for already-established couples – i.e., couples who, as we wrote, will have had time to consider their shared values, reflect on their goals, and so on.

Perhaps the scenario was meant to support a different point, then? Although Spreeuwenberg and Schaubroeck do not make the connection explicit, they seem to be thinking of the drunk flirter when they make the following claim: "When one wants to know

[30] *Ibid.*
[31] From Earp and Savulescu 2020a, 63.

whether X loves Y, it is important but not enough to ask X. Nor does it suffice to observe (the absence of) X's behavior. One needs to pay attention to the interactions between X and Y, as well as to the social norms that guide that interaction."[32]

As we alluded to earlier, we do not disagree with any of this. However, Spreeuwenberg and Schaubroeck seem to suggest that we do in fact hold those very views. In other words, they seem to suggest that, according to us, judgments about whether love exists in a given case can be made by simply asking one of the parties involved and/or observing their behavior, without needing to take into account the interpersonal dynamics or the background social norms. Unfortunately, this is a serious misrepresentation of our view. Accordingly, we have prepared a separate Appendix at the end of the article to explain in detail what Spreeuwenberg and Schaubroeck get wrong about our concept of love, so that we can use this part of the reply to address more substantive philosophical issues.

Love as attention?

One such issue concerns the view of love put forward by Spreeuwenberg and Schaubroeck, framed as an alternative to our own. Drawing on some of their own past work, Spreeuwenberg and Schaubroeck argue that love should be seen, not as a psychological condition or set of behaviors (a view they wrongly attribute to us), but rather as a socially situated practice (a view we endorse and emphasize throughout the book). In particular, they adopt an Iris Murdoch-inspired account, according to which love is fundamentally about how one opens up to the world and focuses one's attention on others in a loving way.

[32] Spreeuwenberg and Schaubroeck 2020, 72-73.

This is not the sense of love-as-practice we explore in the book, on which more below, but we appreciate Murdoch's writings and are happy to entertain this perspective. However, we wondered if there might be a tension between this Murdoch-inspired account of love and the argument of Spreeuwenberg and Schaubroeck that love cannot be identified solely with reference to the perspective of a single individual. To see this, consider what they say about love as attention: "Looking, attending, and focusing one's attention all takes place in the inner life. Hence [we] can love someone from afar, we can love someone without them knowing, and we can even love the dead."[33] We found these claims difficult to reconcile with the rest of their argument. If I can love someone from afar, without them knowing, then it seems that love does *not* depend on the interactions between two or more people and that it *can* be analyzed from the perspective of a single individual: it is a matter of how the individual uses their attention.

As we wrote in the book, we are open to a range of theoretical accounts of the metaphysics of love, so long as they are compatible with the idea that love has at least two dimensions: one biological and one psychosocial/historical (see *Appendix*). As far as we can tell, there is nothing about this Murdoch-style account of love as attention that is inconsistent with that basic insight. Presumably, our attention, as well as our ability to attend to certain things in certain ways, is influenced both by biological and psychosocial factors. One potential way of harmonizing our account with that of Spreeuwenberg and Schaubroeck, then, would be to explore some of the ways in which chemical substances might affect our loving attention, both in desirable and undesirable ways. However, Spreeuwenberg and Schaubroeck do not engage in such exploration. Instead, they write that "Love is getting to know an

[33] *Ibid.*, 77.

individual" (including from afar? without them knowing?) and conclude that this process is "not something that can easily be fixed by merely looking at the 'chemicals between us.'"[34]

This last part is ostensibly a reference to us. However we did not argue, nor suggest, that the challenge of getting to know a person – or indeed any other complex interpersonal project or phenomenon – can "easily be fixed" by "merely" looking at romantic neurochemistry. In fact, we were at pains to argue for the exact opposite position throughout the book, starting with the first chapter: "at no point do we advocate the use of biotechnology as a quick fix for relationship troubles." Instead, we make clear that "we consider the voluntary use of biochemical agents *in conjunction* with psychotherapy, social support, and other established strategies as a way to help people achieve their relationship goals."[35]

Situating the ethics of love drugs and anti-love drugs

Now we can talk a bit about the ethics. As Spreeuwenberg and Schaubroeck point out, in order to evaluate whether the use of a biotechnology really is sufficiently 'voluntary' to avoid certain concerns about coercion, it is important not to rely on a "fantasy of autonomy that many do not experience." As they correctly note, autonomy "is not a moral good that is equally available for every person in real life. Choices are always made in a social context."[36]

We agree. In fact, we made that same point in our book. We wrote that the "cool-headed rationality" that is widely thought to

[34] *Ibid.*
[35] From Earp and Savulescu 2020a, 12-13, emphasis added.
[36] From Spreeuwenberg and Schaubroeck 2020, 83.

be required for a choice to be meaningfully voluntary[37] may not be "all that common in real-life medical decision-making, and may even be a myth." In real life, we wrote, "people make their decisions about therapy or other healthcare in a fog of desperation, confusion, and stress, while balancing all sorts of competing interests, from their own pain, discomfort, and fears to those of others." We go on to state: "Romantic relationships may involve all of these pressures and more. Adding drugs to the mix will only make things more complicated. It will be crucial to get a handle on actual power dynamics and shifting contextual factors when bringing drugs into romantic relationships."[38]

For example, when evaluating a wife's decision to take an anti-love drug to help her leave a bad relationship, Spreeuwenberg and Schaubroeck suggest that we should ask whether she has alternatives, what her exit options are, and if she could be financially independent. Those are great questions. In fact, we raised those very same questions in the book: "many people who are in abusive relationships seem to believe they cannot leave them, not because they have some kind of emotional attachment to their abuser but because they are financially or otherwise economically dependent on their partner. They may also be afraid of putting their children in danger by leaving."[39]

Finally, Spreeuwenberg and Schaubroeck stress that women and men, on average, have an "unequal division of moral-cum-social goods."[40] We agree with this, and we stressed this point as

[37] In other work, we explore assisted decision-making for people whose autonomy may not fit the rational stereotype implied by this language (e.g. Earp and Grunt-Mejer 2021; Earp 2019).
[38] From Earp and Savulescu 2020a, 120.
[39] *Ibid.*, 141.
[40] From Spreeuwenberg and Schaubroeck 2020, 83.

well. For example, when considering arguments about whether a couple should stay together for the sake of their children, we noted that "women are usually expected to do the lion's share of childcare, typically without compensation or even decent social assistance. This means that 'do it for the children'-type arguments tend to have asymmetrical implications for mothers versus fathers, assuming a heterosexual couple."[41]

Love as practice redux

Earlier we alluded to the fact that, like Spreeuwenberg and Schaubroeck, we agree that love should be seen as a practice. We also noted that, in the book, we don't officially come down in favor of any single normative account of love (although we do explore various accounts, such as the care-based one we described in our response to Arrell). That being said, we come pretty close to endorsing the view of Erich Fromm, whom we quote in our epigraph.[42] According to Fromm, love is an art – or practice – which requires agency, discipline, and effort. It is not something that just happens to one, but is rather something one must work on, in collaboration with one's partner or partners, so as to actively maintain or improve it. Near the end of the book, we ask: "What if to love is to practice an art, as Fromm argued, which requires conscious effort and discipline, as well as knowledge and therefore understanding? What if knowing how love works, in other words, right down to [i.e., including] the chemicals between us, could help us be better at being in love?"[43]

Given the context, these questions translate as follows: What if we could use a richer understanding of love that includes not only

[41] From Earp and Savulescu 2020a, 79.
[42] See Fromm 1956.
[43] From Earp and Savulescu 2020a, 188.

its psychosocial dimensions, as we discuss in the book, but also its biological dimensions – only recently beginning to be revealed – to make more fully-informed decisions about how best to 'practice' love with our partners?

Importantly, we stress that this will always be a context-sensitive, couple-specific decision, and that neurochemical interventions into love will often *not* be prudent or even ethical all things considered. To explore these ethical issues further, we turn now to the commentary by Allen Buchanan.

III

Regulating love drugs: Reply to Buchanan

Buchanan writes that he finds himself in a "difficult (and unaccustomed) position: I agree with almost everything in a book upon which I have been asked to comment."[44] As tempted as we are to embrace this endorsement from one of our most distinguished colleagues – and move right on – for the sake a continued dialogue, we will instead home in on his one point of substantive criticism. In a nutshell, Buchanan argues that we are too cautious and conservative in drawing ethical boundaries around the use of drugs in romantic relationships.

Buchanan begins by noting that, throughout the book, we emphasize the *limits* of our proposal. We are not suggesting that couples should run out and start experimenting with MDMA or 'magic' mushrooms, even if it becomes legal to do so; instead, we call for *research* into MDMA and psychedelic-assisted psychotherapy for couples in a controlled environment, building on the research that has been done so far in individuals.

[44] From Buchanan 2020, 61.

Further, even assuming that the proposed couples-based research yields promising results, we maintain that it would be prudent to use MDMA or psychedelics for purposes of relationship enhancement only under the guidance of an appropriately trained therapist. In this way, risks would be minimized, benefits maximized, and any drug-inspired insights more likely to be properly integrated into ordinary waking consciousness, as well as implemented in the couple's habits and plans. However, according to Buchanan, nothing in the actual argumentation of our book "warrants this blanket constraint."[45] He continues:

> It might be plausible to argue that in the case of chemical interventions whose efficacy and safety are not well-confirmed, there is a strong presumption that their use should be a last resort, to be undertaken only after various more traditional interventions have proved unsuccessful. But if a chemical intervention has been shown to be effective and safe and if a competent individual consents to its use under conditions of informed consent, using it without any accompanying nonchemical treatment will sometimes not only be permissible, but even morally mandatory.[46]

Some clarifying remarks may be in order. First, a word about the state of the evidence. As we were writing this response to the commentaries, the very *first* study on MDMA-assisted 'conjoint' therapy for couples, in which one of the partners has been diagnosed with PTSD, was published in a peer-reviewed journal.[47] It was an open-label, unblinded, uncontrolled trial with only six

[45] *Ibid.*, 62.
[46] *Ibid.*
[47] See Monson et al. 2020.

couples, with both partners in each couple administered MDMA in two therapeutic sessions.

Moreover, as of writing, there have been *no* scientific studies, controlled or otherwise, on couples in which *neither* partner has a diagnosable mental problem, which is a further step that would need to be taken before drug-assisted couples therapy for enhancement purposes – as opposed to treatment-only purposes – would start to have a direct-evidence base.

Nevertheless, we are glad to see this recent research. We think it is incredibly important work, and it is exactly the sort of relationship-oriented science we call for in our book. The results seem auspicious, too: "there were significant improvements in clinician-assessed, patient-rated, and partner-rated PTSD symptoms … as well as patient depression, sleep, emotion regulation, and trauma-related beliefs." In addition, and here's the highlight for us, "there were significant improvements in patient and partner-related relationship adjustment and happiness."[48]

So, good. More of this. But in the meantime, the antecedent of Buchanan's conditional claim – "*if* a chemical intervention has been shown to be effective and safe" – has not yet been fulfilled in the case of drug-assisted interventions into relationships, especially not for purposes of enhancement.

Now, Buchanan might object that we are splitting hairs. For individuals, at least, as we review in detail in the book, both MDMA and psychedelics *have* already been shown[49] to be safe and effective (or at least efficacious), both in people dealing with PTSD among other conditions, as well as in so-called 'healthy normals' –

[48] From Monson et al. 2020, 1.

[49] We hesitate to use the word 'shown' in a definitive way, for Popperian reasons we discuss elsewhere (Earp 2020). All the usual caveats apply.

certainly when compared to many existing medications that are regularly prescribed within psychiatry.[50] Why should it be any different for couples? In other words, why is *further* evidence of safety and/or effectiveness required to fulfill Buchanan's antecedent premise?

We have two responses. First, we would qualify the above assertions regarding safety and effectiveness for individuals, rather heavily, as follows: "both MDMA and psychedelics [administered at the right dose, by a trained therapist, in an enclosed, peaceful setting, in the context of a well-established therapeutic protocol, drug purity having been assured, with medical staff on hand to monitor vital signs and be alert to any potential problems] have been shown [physiologically] safe and effective [or rather, efficacious, at reducing the symptoms of some well-defined psychiatric disorders and/or increasing certain positive traits and behaviors, such as resilience and psychological flexibility], in [appropriately pre-screened and adequately prepared] individuals [over the course of the study period, in some but not all cases with long-term follow-up]."

Second, when it comes to effectiveness – in the case of couples seeking to improve their relationship – we have to ask ourselves, effective at *what*? The recent conjoint therapy study used something called the Couples Satisfaction Index (CSI),[51] a reasonably well-validated measure of relational well-being. So, 'increasing CSI scores' is one plausible answer. But robustly assessing interpersonal outcomes of these and other drugs is the exception rather than the rule. More work, both empirical and conceptual, is needed to assess the effects of the drugs along other relational dimensions, as we argued in our response to Arrell.

[50] See, for example: Feduccia et al. 2019; Romeo et al. 2020.
[51] See Funk and Rogge 2007.

Okay, Buchanan might say, suppose we get some high-quality evidence that MDMA and psychedelics – ingested *outside* of a therapeutic context, with greater uncertainty around dosing and drug purity, less control over the environment, no medical staff on hand to step in if there are problems, etc. – are safe and effective (along relevant dimensions). *Then* if a competent individual or couple consents to use these drugs without any accompanying nonchemical treatments, might this then be permissible and even desirable?

Perhaps. But now the argument starts to look a little strange. First, we don't have that kind evidence right now, and it isn't clear exactly how we could get it.[52] After all, the less controlled the setting of a study, the messier the variables become, and the harder it is to interpret the evidence. Moreover, in the case of MDMA and psychedelics in particular, 'set and setting' are absolutely central to the outcomes, whether positive or negative.[53] Loss of control over the therapeutic parameters, therefore, both in preparing the user for the experience (set) and ensuring an appropriate environment (setting), means sacrificing a major part of what allows us to say, insofar as we can, that these drugs are 'safe and effective' in the first place.

Second, if the moral permissibility of using MDMA or psychedelics turns on a competent individual giving informed consent, it is not clear why the drugs would need to have been shown safe and effective, whether in a clinical-like setting or out in the wild. After all, in a liberal moral regime, competent individuals are entitled to do all sorts of potentially (or actually) unsafe things,

[52] One possibility is that observational studies could be pursued in semi-controlled environments, such as retreat centers in jurisdictions where the drugs have already been decriminalized.
[53] See Yaden and Griffiths 2020.

from smoking cigarettes to playing extreme sports, so long as they don't harm anyone else or violate others' rights. So, there is perhaps a libertarian argument to be made here for something like "pharmaceutical freedom,"[54] but that doesn't appear to be Buchanan's position.

In other recent work, we – actually, all three of us, Buchanan included – have called for the immediate decriminalization and subsequent staged legal regulation of so-called 'recreational' drugs, that is, all drugs currently deemed to be illicit for personal use or possession.[55] In effect, we call for an end to the War on Drugs. But although there is now a wide consensus that decriminalization should be pursued alongside increased healthcare access and concomitant harm-reduction measures (the so-called Portugal model), the legalization of drugs for personal use is much more controversial. Moreover, even among those who support legalization in one form or another, there is ample disagreement about complex policy questions concerning which regulatory levers should be pulled in which ways for which drugs under which conditions. We decided against opening that can of worms in the book.

But suppose these drugs *are* legally regulated in the reasonably near future,[56] so that couples can access them without too much difficulty, and without worrying about breaking the law. We are fine with saying that, so long as the participants are competent adults making a sufficiently well-informed decision, it would be

[54] See, for example, Flanigan 2017.
[55] See Earp et al. 2021.
[56] As of writing, the U.S. state of Oregon has in fact begun the process of legalizing MDMA and psychedelics for therapeutic use as well as 'personal development' in controlled, clinic-like settings, under the supervision of a properly trained guide (Acker 2020). This is the sort of model we are currently prepared to endorse.

permissible for them to use the drugs. On that point, we agree with Buchanan. Whether it would be *prudent* for them to do so, however, is an open question, and it will depend on the details of their situation. That is, it will depend on such factors as: what is going on in their relationship, what do they hope to accomplish, how well have they educated themselves about the drugs and their potential effects, what setting have they chosen for the experience, how much mental and emotional 'prep work' have they done, individually and together, and so on.

Nevertheless, we see Buchanan's commentary as opening the door to an important conversation: the next frontier of the love drugs debate. We won't be stuck in clinical trials forever. At some point, these drugs are going to leave the lab. The question now is, who should have access to the drugs, with which restrictions, and how is all this going to be managed – from a public policy and public health perspective – so that the prospective benefits not just at the level of the individual or couple, but also at the level of the whole society, outweigh the potential harms.[57]

[57] In his thought-provoking commentary, Buchanan also raises the issue of using MDMA and psychedelics for purposes of moral enhancement, to deal with such things as political polarization and toxic tribalism. Although we do not have space to respond to this interesting proposal here, we are sympathetic to Buchanan's perspective. Indeed, we have explored the prospect of 'psychedelic moral enhancement' in other work (Earp 2018; Earp, Douglas, and Savulescu 2017).

IV

Individual benefits and social harms: Will love drugs lead to incest? Reply to Garasic

We turn at last to the commentary by Garasic. Garasic starts by quoting the end of our first chapter, where we state that the goal of the book is to "arm you [the reader] with the latest knowledge and a set of ethical tools you can use to decide for yourself whether love drugs – or anti-love drugs – should be a part of our society."[58]

To Garasic, this quote implies that we think the ethics of love-altering drugs starts and ends with each individual deciding for themselves what is good or bad, permissible or impermissible, and acting accordingly. By contrast, Garasic argues, "relying too much on autonomous, individual choices might not be the best way to go for both individuals and society."[59] To illustrate this risk, Garasic notes that the apparently individually rational use of a biotechnology may, in the aggregate, have disturbing society-wide implications (a point we highlight and discuss at length in Chapter 11). For example, he suggests that the rational use of love drugs by individuals may, at the level of society, result in such troubling outcomes as a weakening of the taboo against incest between adult siblings.

We found the incest argument hard to follow. Nevertheless, we will try to reconstruct it in the following sub-section and reply to it at least in part. Here, however, we would like to express our agreement with Garasic that relying "too much" on autonomous, individual choices – in whatever domain – is by definition not ideal. It is similarly not ideal to rely "too much" on collectivist, group

[58] From Earp and Savulescu 2020a, 15.
[59] From Garasic 2020, 30.

choices, or on too much of anything. It depends on the context, who is involved, what is at stake, and additional factors.

That is why we gave a lengthy argument, in Chapter 5, for autonomy as one ethical value among others, stressing that it should be paramount in some circumstances (for example, when a person decides to leave a toxic relationship, even if this may conflict with perceived social obligations), but limited in others (for example, when concerns about justice or community survival are at stake). We also drew on the work of feminist philosophers such as Carol Gilligan and Eva Feder Kittay, stating that "ethics is not just about me, me, me." Instead, we wrote, "we are all dependent on others, to a greater or lesser extent, at different phases of our lives and in different situations. Our ability to be autonomous at all presumes that we have been cared for in a social environment and provided with opportunities to develop our capacities."[60]

In saying, therefore, that we wanted to equip readers with the tools to think through the ethics of romantic biotechnology for themselves, we were not thereby suggesting that the analysis could be reduced to whatever each individual concluded. Far from it. We were saying something much more mundane and almost entirely unrelated. Something like this: "We, the authors, do not have all the answers, and it is not our job to tell you what to think. Instead, we are going to present some arguments for different views so that you can evaluate the reasons and evidence in favor of one perspective versus another. Ultimately, our goal is to empower you to engage in bioethical reasoning of your own."

Then, throughout the book, we refer to diverse stakeholders – beyond individual readers – who will need to be involved in this unfolding discussion. Indeed, our project is framed as a call to public conversation. For example, in our chapter on anti-love

[60] From Earp and Savulescu 2020a, 78.

drugs, we write that such drugs could bring both benefits and harms. We state that, although we have tried to think through some of the main ethical factors involved, both at the individual and social-structural levels, "this is only the beginning of the conversation."[61] We then quote a colleague who notes that "policymakers, doctors, and individuals will all have to make judgments about the value of such drugs in various kinds of real-world situations."[62]

Elsewhere, we stress that ethical dilemmas concerning emerging biotechnologies "cannot be resolved in an academic vacuum." To the contrary, we state, "a much wider debate is taking place in society over what sorts of values we should hold in the first place with respect to things like love, sex, and relationships." We write that "this broader conversation – between the insights of progressivism and the insights of conservatism, as well as between the forces of secularism and the forces of religion – will continue to shape the moral ends toward which human beings collectively and individually strive." At the most fundamental level, we say, the question for society is "how can we use new technologies for good rather than ill, while simultaneously trying to reach a functional consensus on what sorts of things actually are good or ill in the first place?"[63]

Later, we state that "societies, through their policymakers [should] consider medical interventions as complements to social and political change, rather than as replacements … individual-biological and social-structural factors interact with each other in important ways."[64] We could go on, but the point has been made. We do not suggest, and in fact repeatedly argue against the view,

[61] *Ibid.*, 147.
[62] *Ibid.* Quoting McArthur 2013, 24.
[63] All quotes in this paragraph from Earp and Savulescu 2020a, 170.
[64] *Ibid.*, 186.

that the ethics of love drugs and anti-love drugs can be exhausted by appeals to individual autonomy.

We turn now to Garasic's argument about incest.

Will love drugs lead to incest?

The first thing to say about Garasic's commentary, entitled "Love in the Posthuman World,"[65] is that it does not specifically engage with the arguments we made in the book. Instead, it seems to use the hypothetical idea of a 'love drug' that works nothing like the substances we discuss, used in ways we explicitly reject, to speculate about a 'posthuman' future that falls outside the scope of our analysis. Nevertheless, we will try to convey the gist of his argument and respond to it in part, mostly to show how his discussion is either unrelated to, or expressly incompatible with, the proposals we defend in the book.

Garasic puts forward the following thesis: "embracing love drugs that could help us choose to love anyone, combined with the possibility [of using] other advancements in medicine such as Preimplantation Genetic Diagnosis (PGD) [could] 'tempt' us to break one of the most shared global taboos: incest."[66] Noting that we do not discuss PGD in the book and that we argue against the idea that love drugs, as we conceive them, either could[67] or should[68]

[65] The subtitle is: "How Neurointerventions Could Impact on Our Societal Values."
[66] From Garasic 2020, 30.
[67] See Chapter 4 of the book for an in-depth discussion.
[68] For example, in our chapter on MDMA, we argue that the drug should preferably be used with already-established couples with an authentic connection who have determined that their relationship is worth maintaining, all things considered (see our response to Spreeuwenberg and Schaubroeck, above).

be used to help individuals "choose to love anyone," let us now try to reproduce the 'incest' argument. It seems to proceed as follows:

> (1) Exceptionally wealthy ('rich') people tend to be highly motivated to preserve and consolidate their status and power in society, as well as that of their offspring. In any case, it is individually rational for rich people to try to do this.[69] Let's call this their 'goal' for short.
>
> (2) In order for rich people to maximize their goal, they must only marry – and reproduce with – other similarly-rich people, while trying to keep their wealth, as it were, 'all in the family.'[70]
>
> (3) The existing taboo against incest, even for (apparently) consenting adults, presents a barrier to rich people maximizing their goal. For example, it is currently considered a taboo for a rich brother and sister to marry and reproduce with each other, thereby limiting their romantic prospects and making it harder to keep their wealth 'all in the family.' From now on, we will consider only incest between consenting adult siblings.[71]
>
> (4) Suppose that some sort of advanced medical technology could be used to eliminate the *genetic* risks associated with reproductive incest between siblings.[72] In that case, the only[73] remaining variables stopping rich siblings from marrying and reproducing with each other (i.e., doing what Garasic suggests is

[69] From Garasic 2020, 34.
[70] Paraphrasing Garasic 2020, 34.
[71] Garasic uses the example of the brother-sister pair 'Mark' and 'Julie' from Jonathan Haidt's well-known studies on moral dumbfounding (Haidt 2001).
[72] From Garasic 2020, 36-38.
[73] We are assuming Garasic has something like this constraint in mind, otherwise we don't see how his argument goes through. After all, one might think that there are *many* factors apart from the Westermarck effect and the incest taboo preventing rich siblings from (wanting to) marry and reproduce with one another. But if that's true, the 'slippery slope' from research into 'love drugs' to weakening or abandoning the incest taboo gets a lot less slippery.

individually rational for them to do) would be (a) the taboo against incest, and (b) the fact that siblings – especially if raised together – rarely experience sexual feelings for one another or view each other as potential romantic partners. This is due to something called the Westermarck effect (described below).

(5) Suppose that rich individuals could use some kind of 'love drug' to reverse the Westermarck effect, thereby enabling or even causing them to have sexual feelings for, or fall romantically in love with, their siblings. In that case, only the existing taboo against incest would prevent them from maximizing their goal. This, in turn, would incentivize rich people to weaken the taboo against incest, so that nothing else stood in their way.

(6) Holding everything else in this argument constant, the availability of a 'love drug' that allowed us to "switch on and off our predisposition to love a certain someone that we would rationally choose a priori"[74] (which for rich people we are assuming includes their own siblings) would incentivize rich people to weaken the taboo against incest, in order to maximize their goal.

(7) Therefore, research into 'love drugs' may "lead us to accept one of the most globally accepted taboos in human history – incest."[75]

We do not find this argument plausible. Before we say why, however, we will first try to identify some point of connection between this argument and anything we wrote in our book. Implying that there may be such a link, Garasic quotes us as follows: "If we want a society where everyone, or even just most people, can really flourish in their romantic lives, we should push for a dominant social script that recognizes and allows for a range

[74] From Garasic 2020, 39.
[75] *Ibid.*, 33.

of relationship norms, so long as these are based on mutual consent and respect for others."[76]

Garasic correctly assumes that "respect for others" does not mean, as he puts it, simply "sticking to old fashioned (often religious based) norms in the sexual sphere,"[77] since we are supportive of same-sex relationships. Well then, Garasic concludes, it must logically follow from the rest of the quoted material that mutually consensual incest between siblings should be among the relationship norms that are tolerated within the dominant social script.

That is not correct. The quote in question comes from a section of the book in which we discuss ethical non-monogamy or polyamory as a relationship norm for which there is growing support in Western societies. We proposed that if this norm were more widely tolerated, it would allow those who are strongly disposed to desire physical and emotional intimacy with more than one partner at a time to pursue this desire in a socially supported way. We suggested that this, in turn, would likely increase their ability to flourish without harming or disrespecting others, while also avoiding any perceived need for heavy-handed suppression of their seemingly deep-rooted preferences or desires.

To make this point, we drew an analogy with the benefits of greater social acceptance of gay relationships for those who have a same-sex sexual orientation: "If homosexuality is natural for some people – that is, most consistent with their unchosen, innermost, most stable, hard-to-ignore preferences and desires – then polyamory is probably natural for some people, too, just as

[76] From Earp and Savulescu 2020a, 43.
[77] From Garasic 2020, 25.

heterosexuality or monogamy may be for others."[78] Although we acknowledged that something's being 'natural' in this sense is not sufficient to show it is good or desirable, we gave an extended argument for why, if various other conditions are met (e.g., no one is harmed by the concomitant behaviors), societies *should* adopt social norms that are compatible with people's 'natural' sexual orientations.[79]

How does this map on to incest between siblings? It doesn't. First, sibling incest is *not* 'natural' in the above sense; and even if it were natural, it is not obvious that the other conditions of our extended argument (regarding lack of harm, etc.) would be met. Due to the Westermarck effect, virtually nobody has a strong or innate desire to have sex with their brother or sister, certainly not one that is analogous to the desire that many people have for multiple sexual partners or for partners of the same sex. Moreover, it is implausible that there would ever be a large contingent of 'rich siblings' who were so hell-bent on maximizing their wealth and privilege – despite all countervailing considerations – that they would want to use a technology to conjure up such a desire, even assuming this were scientifically possible (which it isn't).[80]

As we wrote in the book, in the late 1800s, the Finnish anthropologist Edvard Westermarck "observed that people living in close proximity during the first years of their lives – brothers and sisters, cousins raised together for arranged marriages, genetically unrelated kids growing up in tight quarters on Israeli

[78] From Earp and Savulescu 2020a, 42. However, see Earp and Vierra 2018; Savulescu, Earp, and Schüklenk 2021.
[79] Based on Earp, Sandberg, and Savulescu 2012.
[80] Also assuming, implausibly, that society were arranged in such a way that sibling incest actually would be the best way, all things considered, for them to achieve such a monomaniacal goal.

kibbutzim – become desensitized to each other as potential sexual partners."[81] The mechanism underlying the Westermarck effect is not known, but it has been hypothesized to involve olfactory cues. It leads to a kind of 'negative sexual imprinting' whereby a given individual is tagged as *not* a potential mate, thereby precluding the possibility of "romantic feelings for an otherwise eligible partner."[82]

We raised the Westermarck effect in the context of a discussion about ways in which it might one day be possible to *eliminate* sexual feelings for someone in cases where such feelings were problematic (e.g., pedophilia). Garasic, by contrast, seems to be thinking of the opposite possibility: some speculative future technology that might reverse the Westermarck effect so that siblings – who do *not* desire to have sex with one another – could at least potentially find each other sexually attractive. But the reasons we gave for why societies should consider expanding their 'scripts' for acceptable romantic arrangements to accommodate gay or polyamorous relationships (including the existence of large groups of people who seem naturally disposed to desire such relationships) do not apply to incestuous relationships between adult siblings.[83]

We also take issue with Garasic's characterization of a 'love drug' as something that would allow us to "switch on and off our predisposition to love a certain someone."[84] We went out of our

[81] Earp and Savulescu 2020a, 128.
[82] *Ibid.*, 129.
[83] Of course, even if there *were* a large number of people who 'naturally' wanted to have sex with their siblings, this wouldn't entail that society would have an all-things-considered good reason to accommodate such relationships. For an in-depth discussion of multiple reasons why moral norms and laws against adult consensual incest are reasonable and even necessary to secure certain special goods of family life, see McKeever forthcoming.
[84] From Garasic 2020, 39.

way to make clear that this is *not* how we think of love drugs, that there are no such technologies, and that it is unlikely that there ever will be. For example, in Chapter 4 we argued that "most real-life biochemical interventions into love and relationships, both now and in the future [will not work like] magic potions [that can] instantly transform your entire inner life, making you fall out of love in a heartbeat with your spouse of thirty years, or in love, for that matter, with every pizza guy who shows up at your door."[85] We go on to quote the anthropologist Helen Fisher:

> As you grow up, you build a conscious (and unconscious) list of traits that you are looking for in a mate. . . . Drugs can't change [this] mental template. Altering brain chemistry can [influence] your basic feelings. But it can't direct those feelings. Mate choice is governed by complex interactions between our myriad experiences, as well as our biology. In short, if someone set you up with [someone you are not ultimately compatible with], no "slipped pharmaceutical love potion" is going to make you love him.[86]

"In other words," as we put it, "the most likely scenario for the foreseeable future, even as neuroscience progresses, will be more or less powerful loadings of the dice – not sorcery."[87]

Final thought

As we said, we agree with Garasic that individually rational behavior may lead to wider social harms. We make that argument ourselves over the course of several pages, using detailed case

[85] From Earp and Savulescu 2020a, 54.
[86] From Fisher 2016, 318-319.
[87] From Earp and Savulescu 2020a, 55.

studies, in Chapter 11. We also agree that individual autonomy is not the be-all and end-all of ethical analysis. We argue for that position, too, at multiple points throughout the book. While Garasic's argument about incest is certainly interesting, it strikes us as unrealistic, and it unfortunately relies on a conception of 'love drugs' that bears little resemblance to the one we adopted in our work. Nevertheless, we are grateful for the opportunity to clarify our position on these and other matters.

Conclusion

We will conclude by going back to where we started, to the commentary by Arrell. Arrell writes that our book, in some ways, feels "like the culmination of a fascinating philosophical debate the authors set in motion more than a decade ago about the prospects of using biotechnology to enhance love." In other ways, though, "the book marks a new beginning, which will hopefully see their work break new ground and bring these ideas to wider audiences than ever before."[88]

We appreciate this way of framing things, as it reflects our mission for the book. We wanted, in the first place, not only to summarize our arguments from the past ten years or so, but to systematically respond to our critics, acknowledging their important insights and updating our conclusions along the way. Readers, then, who are only familiar with our work on love drugs from our early published papers may be surprised to see that we have changed our minds about certain things and expanded our perspective in various ways.

But we also wanted to bring this conversation out of the ivory tower and into the public domain. Love drugs are no longer

[88] From Arrell 2020, 45.

theoretical, and the mandate to develop a socially responsible, ethical policy to handle them can no longer be delayed. In the book, we explore some of the most pressing philosophical and ethical questions raised by these emerging biotechnologies, but we have still only scratched the surface. As individuals, as partners, and as members of society, we must all work together to decide how this story should unfold.

Appendix

Did we fail to include a socio-historical dimension in our notion of love? Further response to Spreeuwenberg and Schaubroeck

In the course of their commentary, Spreeuwenberg and Schaubroeck make a surprising number of false or misleading statements about our concept of love, ranging from apparent logical mistakes to more substantive errors and even fundamental mischaracterizations. An overarching theme of their critique is that we seem to treat love, not as a socially and historically situated practice (our actual view) but rather as an individual-level psychological condition or set of behaviors. In this *Appendix*, we will address just a few of their most problematic assertions.

Love as a set of behaviors?

Let us start with the idea that, on our view, the existence of love can be directly inferred from the presence or absence of certain behaviors. For example, Spreeuwenberg and Schaubroeck attribute to us the following claim: "displaying loving behaviors (like

wanting sex, sharing emotions) is sufficient to conclude there is love."[89]

That is incorrect. Unfortunately, Spreeuwenberg and Schaubroeck seem to have mixed up the logical concept of a sufficiency condition with that of a necessity condition, leading them to seriously misrepresent our view. In the book, we made an if-then argument about a feature of relationships that some people regard as a *necessary* – not sufficient – condition for romantic love. Specifically, we wrote that if one sees sexual desire, under certain conditions, as a necessary feature of romantic love, then a drug that removes such desire under the specified conditions would change something often seen to distinguish romantic from so-called platonic forms of love.[90] It is therefore erroneous to conclude that we "believe that if a drug makes you want sex, share emotions or makes you want to behave in certain ways, then this is enough to say that you love." [91]

Now consider the notion that a lack of love can be directly inferred from the absence of certain behaviors. Here, Spreeuwenberg and Schaubroeck not only incorrectly attribute this claim to us, but they also suggest that we advanced the claim without any argument: "the inference that there is no love when there is no loving behavior needs an argument … without argument the inference relies on an implicit normative understanding of what love is."[92]

Part of this criticism we found helpful. It suggests that, like Arrell (see main text), Spreeuwenberg and Schaubroeck took us to be referring to loving or caring *behavior* that might be diminished

[89] From Spreeuwenberg and Schaubroeck 2020, 71.
[90] From Earp and Savulescu 2020a, 61.
[91] From Spreeuwenberg and Schaubroeck 2020, 71.
[92] *Ibid.*

by a drug, when what we had in mind was a caring *disposition* (i.e., something that typically results in such behavior but is not identical to it). So, it seems that we were not as clear about that distinction as we might have hoped, and we are glad to have the chance to set the record straight.

Another part of the criticism we found puzzling, however. The authors seem to imply that we failed to argue for the claim that a drug could alter love, so that our inference to that effect must have been based on an "implicit" premise. That is not the case. Instead, the normative understanding of love we invoked in this passage of the book was prominently identified and used to ground a simple *modus ponens*. In reduced form, we argued as follows:

> Normative premise: Assume that love requires care.[93]
>
> Conditional statement: If love requires care and a drug can alter care, then a drug can alter love.[94]
>
> Empirical claim: A drug can alter care.[95]
>
> Conclusion: A drug can alter love.[96]

Now, it is conceivable that our presentation of this argument was simply so convoluted that Spreeuwenberg and Schaubroeck were not able to follow it. But that seems unlikely: in his commentary, Arrell had no trouble reproducing the argument in just a couple of lines, complete with its normative premise: "Assuming that 'true love … requires genuinely caring about (and

[93] From Earp and Savulescu 2020a, 59, second paragraph of the section "Love or something lesser."
[94] *Ibid.*, 60, third full paragraph.
[95] *Ibid.*, first paragraph.
[96] *Ibid.*, third full paragraph.

trying to promote) the other person's well-being' [and] that being on SSRIs [makes it so] that you don't care about your partner's feelings, Earp and Savulescu's argument looks about as watertight as they come."[97] Of course, Arrell goes on to question certain aspects of the argument, as we saw – in particular, he questions the conditional claim – but whether we actually made an argument was not at issue.

Love as socio-historical

Now we get to the more substantial misrepresentations. Spreeuwenberg and Schaubroeck suggest that we failed to consider such basic issues as the "historically contingent" social norms that guide the interactions between lovers, or the "socially embedded" values that shape dominant understandings of what 'counts' as love in a given context.[98] As Spreeuwenberg and Schaubroeck state, it is "remarkable that [Earp and Savulescu] do not bring that social dimension into their notion of love."[99]

We agree that it would be remarkable, indeed, scandalous, if we had failed to consider such important historical and social aspects of love in our book. But in fact we centered those aspects in our account of love, while also drawing out and exploring their implications for – among other things – the very issues just mentioned. Here are some examples:

* In Chapter 1, when first explaining how we will conceive of love in the book, we present a 'dual nature' theory that we later explicitly adopt, based on the work of Carrie Jenkins.[100] We state

[97] From Arrell 2020, 53.
[98] From Spreeuwenberg and Schaubroeck 2020, 73. As they put it, the widely held "correctness conditions" for applying the term 'love' to a relationship.
[99] From Spreeuwenberg and Schaubroeck 2020, 72.
[100] See Jenkins 2017.

that, on this view, love has two dimensions, the first of which is biological and the second of which "is psychosocial and historical. It speaks to the cultural norms, social pressures, and ideological constraints that exist at a given place and time and shape how we think about, experience, and express romantic love in our daily lives."[101]

* The second time we give a theoretical account of love, in Chapter 2, we explain that "beliefs, norms, and expectations about love vary from culture to culture and may change over time; these higher-level factors [can] affect our experiences and conceptions of love."[102]

* We then use an automobile analogy to explain the importance of including psychosocial factors in any reasonable conception of love: "Obviously, the way a car runs, including how and where it moves through space, is not just a matter of internal mechanical aspects (corresponding to brains and biology in this analogy) … It's also shaped by external factors, [like] the presence or absence of pedestrians, the commands of traffic signals, and arbitrary, which-side-of-the-road conventions (sociocultural norms and physical environment)."[103]

* In the same way, we state, "the course and character of love is not just a matter of neurochemicals, genes, and so on. Instead, what love *is* in a given context is constrained and informed by a complex set of outside forces that derive from history and society and interact with individual minds and behavior. These forces range from prevailing cultural norms and assumptions about love [to] the explicit categories and language people use to describe

[101] From Earp and Savulescu 2020a, 11-12.
[102] *Ibid.*, 20. See also Earp, Sandberg, and Savulescu 2016.
[103] From Earp and Savulescu 2020a, 21.

love, to how people make sense of their experiences of love in terms of those categories and norms."[104]

* To illustrate this idea, we use a case study of a lesbian couple in late-nineteenth century England. Given the historical circumstances, we say, the lesbian couple's "feelings for and commitment to one another – as passionate and sincere and deeply rooted as they are – might not be recognized as a true form of love by members of the wider society. This lack of recognition, in turn, could shape how they conceive of their own relationship, interpret their own emotions, and behave even when they are alone, all of which might [also] affect what is happening biochemically between them."[105]

* Over the ensuing pages we give two more extended analogies – one involving the *Mona Lisa* and the other involving *Star Trek* – both of whose explicit purpose is to explore in depth the complex relationship between the biological and psychosocial/historical aspects of love.

* We explain the upshot of this relationship for our thesis: "Tinkering with biology [is] not the only way to modify love. Its psychosocial aspects can be tinkered with as well. At a societal level, people might try to challenge existing narratives about love, including dominant norms for how love should manifest in different relationships. [As] these norms and narratives change, so too will the psychosocial side of love, including what counts as love in a given social context."[106]

* Still in Chapter 2, we stress that "the important point" for readers to grasp is that "social, psychological, and wider historical

[104] *Ibid.*
[105] *Ibid.*, 25. The lesbian couple example originally comes from Jenkins 2017.
[106] *Ibid.*, 22.

factors cannot be discounted."[107] We then quote Lisa Diamond, who writes: "Calling attention to the biological substrates of love and desire [does not] imply that biological factors are more important than cultural factors in shaping these experiences. On the contrary, research across many disciplines has shown that human experiences of sexual arousal and romantic love are always mediated by social, cultural, and interpersonal contexts, and ignoring these contexts produces a distorted account of human experience."[108]

* At the beginning of Chapter 3, we ask how biology and social factors might conflict in modern relationships. Noting that it depends on the type of relationship, we ask: "What are the surrounding cultural expectations? What are the values of the partners?" We go on to discuss monogamy, which we describe as taken for granted in the prevailing social script for long-term relationships in many societies. "But is this a good script?" It depends, we say, "on the community, the couple, their beliefs and values, the wider context, and many other factors." We then explore some of those factors in detail.[109]

* Later in the chapter, we criticize the idea that natural equals good: "we need to be careful. What is natural for our species can be maddeningly hard to disentangle from deep-seated cultural expectations and psychological training. It is quite possible to feel that something is 'natural' when really it's been drilled into our heads through oppressive socialization from when we were young."[110]

[107] From Earp and Savulescu 2020a, 22.
[108] From Diamond 2003, 174.
[109] From Earp and Savulescu 2020a, 36.
[110] From Earp and Savulescu 2020a, 41.

We could go on. The point is, Spreeuwenberg and Schaubroeck are wrong to suggest that we represent love as an individual-level "psychological condition" (that is, something that can be meaningfully assessed without reference to interpersonal dynamics or the background social norms). Rather, as we articulate – and illustrate – throughout the book, we conceive of love as a biopsychosocial phenomenon, whose psychosocial dimension includes the very concepts and theories about love by which it is commonly understood in a given historical context.

A striking example

Here is a striking example of the disconnect between what we actually say about love in the book, and what Spreeuwenberg and Schaubroeck suggest about our view. Consider their claim that romantic love, as we think of it today, was in some sense 'invented' – that is, shaped by a particular set of social norms embedded in historically contingent institutions and practices.[111] Given the preceding excerpts from the book, it should be clear that we are sympathetic to this view. In fact, this *is* our view. However, Spreeuwenberg and Schaubroeck suggest otherwise: they ascribe to us the belief that romantic love, as that notion is currently understood, must have always existed, having first evolved among our distant ancestors. In this, they seem to portray us as having a naïve, ahistorical, bio-reductive view of love, for which their commentary stands as a corrective. They warn us that our failure to pay "close attention to the historical background of romantic love as we know it, is not without risk."[112]

What is going on here? If you look closely, you will see that Spreeuwenberg and Schaubroeck have selectively cited, out of

[111] From Spreeuwenberg and Schaubroeck 2020, 78.
[112] *Ibid.*, 79.

context, a pair of sentences from our book, as follows: "Although you may have heard that romantic love was invented in the West in the last few hundred years, it wasn't. It has been around … since the dawn of our species, ingrained in our very nature."[113] On its own, such a quotation may seem damning. But here it is in context:

> the concept we are after cannot simply pick out a biological phenomenon, as in theories that reduce love to some kind of animalistic drive; but nor can it simply refer to a social or psychological construct or something that exists in a disembodied soul. Although you may have heard that romantic love was invented in the West in the last few hundred years, it wasn't. It has been around (in one manifestation or another) since the dawn of our species, ingrained in our very nature. But the particular forms it has taken – as a result of the diverse ways people have understood it, reacted to it, molded it, and tried to control it or set it free – have indeed been different in different places and throughout different periods of history.[114]

Right before this material, we had introduced the idea that love has a dual nature – it is both biological and psychosocial/historical. Here in the quote, then, we expand on what this means: it means that a theory of romantic love that reduces it *solely* to a psychosocial 'construct' (i.e., something that could have been invented in the West in the last few hundred years) is not going to be adequate; but nor is a theory that reduces it *solely* to a biological phenomenon (i.e., an animalistic drive as old as the species). So, when we say that romantic love has been around "in one manifestation or another … since the dawn of our species," we are quite clearly referring to its biological dimension. In the immediately following sentence, however, we clarify that – on the psychosocial side – particular

[113] From Earp and Savulescu 2020a, 19.
[114] *Ibid.*

practices and understandings of romantic love are, by contrast, culturally and historically contingent.

Spreeuwenberg and Schaubroeck ignore all this. At least, they choose not to share it with their readers. First, they strongly imply that we hold the following absurd position: that romantic love has existed *in its current psychosocial manifestation* since time immemorial. Then, they strike a posture of confusion. Isn't it strange that when Earp and Savulescu go on to list some specific features of romantic love, "they come very close to the characterization of what [scholars have identified as] Romantic Love as invented during modernity?" [115]

For example, they ask the reader to consider the feature of 'being made for one another' or being a 'good match.' Surely, Spreeuwenberg and Schaubroeck advise, this feature "cannot have been a feature of the social expression of lust, attraction and bonding during the Middle Ages, where marriages were economic transactions and there was no room to explore individuality and autonomy in the same way as during modernity."[116]

In short, by presenting certain features of romantic love as timeless and ahistorical that are in fact expressions of modern culture, Spreeuwenberg and Schaubroeck suggest that we have failed to consider the relevant social context and historicized background assumptions that shape how we think about love.

But that is not how we presented those features of love. To the contrary. This is where we wrote that "beliefs, norms, and expectations about love vary from culture to culture and may change over time; these higher-level factors can also affect our experiences and conceptions of love."[117] Then, to *illustrate* this

[115] From Spreeuwenberg and Schaubroeck 2020, 78-79.
[116] *Ibid.*, 79.
[117] From Earp and Savulescu 2020a, 20.

point – i.e., the very point Spreeuwenberg and Schaubroeck raise about the cultural and historical contingency of psychosocial understandings of love – we wrote: "In contemporary Western society, three main clusters of beliefs about love tend to show up on the psychosocial side. These are the concepts and representations of love that appear in art, literature, pop culture, and everyday discussions."[118]

One of those belief-clusters – which we explicitly identified as belonging, not to the Middle Ages, but to contemporary Western culture – has to do with being a 'good match.' And in a later chapter, we give a detailed historical account of how and why norms for love have changed over the past 150 years. There, we note that, until the Industrial Revolution, marriages were not primarily 'love matches' but were rather economic transactions – just as Spreeuwenberg and Schaubroeck point out.

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[118] *Ibid.*

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