



Target Article

# Brave New Love: The Threat of High-Tech “Conversion” Therapy and the Bio-Oppression of Sexual Minorities

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Our understanding of the neurochemical bases of human love and attachment, as well as of the genetic, epigenetic, hormonal, and experiential factors that conspire to shape an individual’s sexual orientation, is increasing exponentially. This research raises the vexing possibility that we may one day be equipped to modify such variables directly, allowing for the creation of “high-tech” conversion therapies or other suspect interventions. In this article, we discuss the ethics surrounding such a possibility, and call for the development of legal and procedural safeguards for protecting vulnerable children from the application of such technology. We also consider the more difficult case of voluntary, adult “conversion” and argue that in rare cases, such attempts might be permissible under strict conditions.

**Keywords:** Conversion therapy, gay conversion, biotechnology, neuroenhancement, love drugs, values

“I can’t change, even if I tried—even if I wanted to.” (Macklemore & Ryan Lewis, *Same Love*)

Recent work in human neuroscience, biotechnology, psychopharmacology, and other related disciplines raises the imminent prospect of “anti-love biotechnology”—neurotechnological interventions that could block or diminish feelings of love, lust, attraction, and even basic social attachment (Earp, Wudarczyk, Sandberg, and Savulescu 2013; see also Gupta 2012). Moreover, as our understanding of the genetic, epigenetic, hormonal, and experiential factors that conspire to shape an individual’s sexual orientation increases (e.g., Rice, Friberg, and Gavrillets 2012; Woodson 2012), so may our ability to modify such variables directly, conceivably yielding an array of high-tech “conversion” therapies or other suspect interventions. These vexing scenarios evoke a number of urgent moral questions about the potential uses, and misuses, of such potent prospective technologies (Earp et al. 2013, 3).

In an early series of papers on this topic (Earp, Sandberg, and Savulescu 2012; Savulescu and Sandberg 2008;

Wudarczyk et al. 2013), we attempted to build a case for the “neuroenhancement” of human relationships. That is, we tried to show that at least some future uses of love- or sexuality-altering biotechnology might be ethically justifiable (or even desirable), granting a number of specific personal, interpersonal, and other contextual factors. In this work, we focused primarily on the use of such technology to strengthen or improve romantic relationships, especially those that might otherwise needlessly break down.

More recently, however, we have turned our attention to interventions that might work in the opposite direction—i.e., by inhibiting or reducing feelings of love and/or sexual attraction. (Earp, Wudarczyk, Foddy, and Savulescu submitted; Earp et al. 2013). Although we argued that such interventions might plausibly be used for “good” (as in the case of a battered woman who needed to break ties with her domestic abuser), we acknowledged that they might also be used for “evil” (as in the case of a religious fundamentalist who wanted to subjugate a sexual minority). By focusing primarily on the domestic abuse case, however, we were able to construct an initial ethical framework for

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the *responsible* use of such anti-love biotechnology:

1. The love<sup>1</sup> in question would be clearly harmful and in need of dissolving one way or another.
2. The person would have to want to use the technology, so that there would be no problematic violations of consent.
3. The technology would help the person follow her higher order goals instead of her lower order feelings, thereby enhancing her “bigger picture” decision-making autonomy.
4. It might not be psychologically possible to overcome the perilous feelings without the help of anti-love biotechnology—or at least more “traditional” methods had already been tried or thoroughly considered.

Using this ethical framework, we argued that the individual, voluntary use of love-diminishing biotechnology (under the right sorts of conditions) might indeed be morally justified, and that in some cases, to deny its use could be problematic or even cruel. Together with our earlier arguments, then, for the neuroenhancement<sup>2</sup> of interpersonal relationships for qualified romantic partners, we believe that we have provided a reasonable initial case for the moral permissibility—even prudence—of attempting drug-based modification of love and love-related phenomena for at least some individuals and some couples.

Nevertheless, it could still be objected that society would be better off without any type of “love drugs” in the first place (all things considered), since their very existence might give rise to more general harms or to other problematic externalities. Love-reducing interventions in particular, it seems, raise the threat of being used for bad or oppressive purposes, such as in attempts to suppress, interfere with, or otherwise alter or diminish the natural affections of gay people or other sexual minorities. Indeed, the ongoing practice

1. Or sexual desire, or relationship bond, etc.—our use of “love” is intentionally broad. As we wrote in our earlier paper, for these discussions we rely primarily on a “psycho-biological account of love [which] suggests that the complex feelings, motivations, and interpersonal attachments that one would typically associate with the word ‘love’ are actually grounded in, and in fact emerge from, a suite of neurochemical and behavioral subsystems that evolved to promote the reproductive success of our ancestors” (Earp et al. 2013, 4). Hence the sex drive (libido) and other “low-level” interpersonal phenomena are implicated in our ethical framework as much as “higher order” feelings of love and attachment.

2. Note that there is some ambiguity in our use of the word “enhancement” here. As we argued in a recent paper, “enhancement” should be tied to the normative goal of the relevant intervention—i.e., to promote individual well-being (Earp, Sandberg, and Savulescu in press). On this account, the neurotechnological *diminishment* of some specific feeling, function, or capacity—such as a “perilous” experience of love (cf. the domestic abuse case)—could actually improve the person’s overall well-being. In such a circumstance, the “diminishing” intervention would actually count as a form of enhancement on the welfarist definition of the term (see also Savulescu, Sandberg, and Kahane 2011).

of “gay conversion” therapy among some conservative religious groups (e.g., Gryboski 2013) is all too readily called to mind by the prospect of such technology. Given, therefore, the harsh reality of anti-gay prejudice and other forms of invidious discrimination—*notwithstanding* that such attitudes may be becoming somewhat less prevalent in certain parts of the world—perhaps it would be better to just leave well enough alone.

We believe that this is a powerful potential objection, and we will address it in this article. Before we do, however, it must be stated at the outset that even if it could be shown that the development of various love or anti-love neurotechnologies would be too fraught with risk to be worth pursuing deliberately, it still might not be possible to avoid having to deal with their eventual existence. This is because advances in other areas—i.e., in treatments for debilitating brain disorders that may have an effect on socio-sexual functioning—might leave us with the very same neuroscientific insights and/or technological capabilities that we would have ended up with had we sought them out for love-altering purposes directly. In such a scenario, we would still have to ask ourselves whether, when, or to what extent to use the powers we had (inadvertently) created. We believe, then, that our efforts thus far to anticipate the various ethical and moral puzzles that the existence of love and sexuality-altering technologies would inevitably bring about have been appropriate and even sensible.

Of course, there are a large number of possible “wider” objections that one could raise against the creation, or the use, of such technologies. Many of these, however, would seem to apply to any new form of biotechnology or drug-based intervention, such as the worry that pharmaceutical companies might seek to shepherd their eventual development with dollar signs—as opposed to the promotion of human welfare—in mind. This is undoubtedly a meaningful concern, as are others that can be easily imagined. But in order to keep our discussion focused, in this article we will train our attention on the single threat we introduced above—that is, the targeted, intentional use of anti-love biotechnology (or other high-tech interventions) to interfere with, alter, or reduce specifically same-sex love or attraction. While we think that this threat presents a very good reason to proceed with caution, we argue that it does not suffice to rule out the possibility that safe, effective love- or sexuality-altering interventions might nevertheless be harnessed for net social benefits rather than harms.

## WHAT KIND OF TECHNOLOGY ARE WE TALKING ABOUT? SETTING THE STAGE

Before we proceed with our main set of arguments, we shall try to give a clearer sense of just what sort of technology we have in mind for this discussion. How would it work? When would it be available? Is it conjectural or more concrete? To answer these questions, we need to distinguish between interventions that could be used to reduce or

diminish same-sex<sup>3</sup> love or attraction (i.e., “anti-love biotechnology”), and those that could be used to change or reorient such attraction from (predominately or exclusively) same-sex to (predominately or exclusively) opposite-sex—the “high-tech conversion therapy” of our title. Roughly speaking, current research suggests that the first sort of intervention is already available, at least in a preliminary sort of way (for details, see Earp et al. 2013), whereas the second sort of intervention—that is, successful, full-fledged conversion<sup>4</sup>—is not currently feasible, and may only plausibly become so in the coming years.<sup>5</sup>

Yet if scientists continue to unravel the various sub-personal, brain-level factors that govern sexual orientation, there is no good reason to think that such conversion may not one day be achievable, likely supplanting the current technologies (see later discussion) that have had such a poor and even dangerous track record. Hence, preemptive deliberation concerning such a possibility may help to clarify the ethical variables involved if and when it ever does come about.<sup>6</sup> For, as Decamp and Buchanan (2007) point out, it is often “more prudent to explore a range of possible issues,

3. Or opposite-sex, or gradient cases in between. Same-sex love or attraction is a special case of a more general phenomenon, and constitutes the focus of this article.

4. Given that sexual orientation is evidently influenced (though not “determined”—see Woodson 2012) by genetic, epigenetic, and early-developmental factors—i.e., factors that are largely at play before the advent of meaningful personhood—an alternative form of intervention might be to screen human embryos for partially predictive biological markers of sexual orientation, or to influence their early development in such a way as to alter the likelihood of the individual’s (future) sexual preferences being weighted one way versus the other (see Schüklenk et al. 1997; Schwartz 2008). At the same time, twin concordance studies show that adult sexual preferences/behavior are only moderately influenced by shared genetic and intrauterine factors, with the nonshared environment playing a significant role (Långström et al. 2010). Thus, even a “perfected” screening method would likely only bias the relevant probabilities, rather than force (or preclude) certain sexual preferences. Yet is not our intention to analyze the prenatal or early-developmental case in this article. Instead, our concern is with the use of love- or sexuality-altering technologies to influence the feelings and/or preferences of meaningfully autonomous persons, such as older children or adults. For further discussion of the ethics surrounding prenatal testing for traits related to sexuality and sexual preference, see, e.g., Greenberg and Bailey (2001) and Murphy (2011).

5. The wider point is this. Every human mental state, disposition, or behavior involves the brain; and even if the phenomenon in question cannot be nontrivially *reduced* to brain states, interventions at the level of the brain can be expected to influence those higher order phenomena in ways that will become increasingly predictable and hence controllable as neuroscientific understanding advances—including the full suite of sexual and/or relational dispositions, orientations, and behaviors.

6. A reviewer for this article asks: What differences would there be “between a permanent alteration in one’s sexuality/love vs. a temporary change? [One] can imagine that taking a drug [that] would alter one’s sexuality [only] so long as one was taking the drug, but [that] otherwise cause[d] no permanent change in the person, would be treated very differently from . . . a procedure that permanently changed one’s orientation. How should these two

some of which may not arise, than to be overtaken by events owing to the failure to think ahead” (538).

In this essay, we endeavor to “think ahead” about the implications of love- and sexuality-altering neurotechnologies that seem to us to be either already feasible (anti-love biotechnology) or hovering on the near horizon (full-fledged conversion).

### THE CONCERN: LOVE- OR SEXUALITY-ALTERING BIOTECHNOLOGY MIGHT BE USED FOR “EVIL” RATHER THAN FOR “GOOD”

Now we come to the first major objection concerning our arguments in favor of the development of “love drugs” and other related neurotechnologies. In a thoughtful critique of our earlier work in this area, Kristina Gupta (2012) warned that love- or sexuality-altering biotechnology might be used, if not for evil, then certainly for nonprogressive ends. Specifically, it might be used to try to homogenize the sexual and relational landscape.<sup>7</sup> Her worry was that (some) people might try to eliminate various sexual preferences or forms of relationship that are not actually harmful—or that might even be healthy or positively worth pursuing—just on the grounds that they were not normative in some community, or that they somehow conflicted with a narrow-minded set of “values.” If we are to acquiesce in the development of neurotechnologies that could be used to refashion human love and sexuality, Gupta suggests, we must double down on our efforts to contest those prejudicial and intolerant social forces.

This is an important consideration. As is well known—and as we alluded to in the introduction—the very disturbing practice of conversion therapy in the United States (designed to “cure” gay and lesbian individuals of their sexual and romantic feelings) carried on until at least

very different ways of altering oneself be considered, since one version allows a person to change his or her mind later in life, while the other version does not?” This is a fascinating question. On a first-pass assessment, it would seem that a temporary, reversible intervention would raise far fewer ethical conundra than one that is permanent and irreversible. If one wanted to “try out” an alternative sexual orientation, that is, but then revert to her prior set of feelings, then, *ceteris paribus*, it is hard to see why this should not be permitted. However, since the possibility of full-fledged conversion is (at present) only speculative, it might be imprudent to add still further speculation about such details as whether the intervention would be permanent or reversible. In this article, therefore, we adopt a broader ethical framework, and shall simply have to look forward to honing our arguments in this area as the relevant technology evolves.

7. This misuse concerning love drugs is our main focus in this article, as we have stated, but obviously others are possible as well. For example, someone might slip an anti-love drug into the drink of a rival suitor. This would be clearly unethical, and would be analogous, perhaps, to telling a scurrilous lie about the mutual object of affection in order to cause the rival-in-love to lose his interest. In general, if the love-altering action would be considered morally impermissible if undertaken by “traditional” means, then it should be considered morally impermissible if undertaken by means of some new technology.

the 1970s with the full-throated endorsement of the mainstream profession of mental health (Gupta 2012). And as recently as 2012, a U.S. federal judge ruled that such therapy cannot be outlawed, even when it is conducted on minors, since it constitutes a protected form of religious “speech”—indeed it is still being performed in a number of fundamentalist Christian, Muslim, and Jewish communities to this day (Halper 2012; Price 2012).

Historical efforts to modify the sexual desires of those with predominantly (or exclusively) same-sex attractions have included such techniques as applying electric shocks to the hands or genitals, pairing nausea-inducing drugs with the presentation of homoerotic stimuli, reconditioning impulses to masturbate, deep brain stimulation, psychoanalytic therapy, “spiritual” interventions such as peer pressure and prayer, and even brain surgery (Cruz 1998; Haldeman 2002; Moan and Heath 1972; Schüklenk et al. 1997). While some of these more invasive approaches are unlikely to be tried today, others persist. For example, the Israeli newspaper *Haaretz* recently reported that “psychiatric drugs are being given to ultra-Orthodox yeshiva students . . . at the request of rabbis . . . and marriage counselors” as a way of suppressing same-sex sexual feelings, so that the “patients” may find it easier to comply with rigid Orthodox norms forbidding homosexual behavior (Ettinger 2012).

While there is very little evidence that such interventions actually work in the way intended—and an abundance of evidence that they can cause trauma, mental breakdown, suicide, and other serious harms (see Hicks 1999)—future technologies might indeed be more effective and possibly even safer as well. Granting, then, that religious fundamentalists (to pursue our chosen example) might try to use these future technologies in ways that progressive-minded people would object to, one might be tempted to conclude that we should try to prevent their coming into being at whatever cost.<sup>8</sup>

This analysis does carry considerable force. However, to endorse its strong conclusion without engaging in any further discussion would be potentially premature. In the next section, therefore, we attempt to draw out some of the more nuanced considerations raised by this perspective.

### Harm, Benefit, and Regulation

As a point of departure—when discussing the possible hazards associated with some predicted future development—one has to remember that any new technology poses risks. This is true whether it is an anti-love pill, a powerful military weapon, or something more mundane. Hence the mere possibility that such a technology might be used for ill can never by itself constitute sufficient reason to reject it—however alarming such a possibility may be. Instead, the potential harms that might accrue from the misuse of the technology must be weighed against the potential benefits that might accrue from its responsible use.

8. Assuming that “we” are progressive-minded people. Note that Gupta (2012), herself, does not call for an outright ban on such technology, as we discuss later.

In the case of love-diminishing interventions in particular, we have argued that one such benefit might be the ability to sever emotional ties between an abuse victim and her abuser (see Earp et al. 2013). Other benefits might include treatments for pedophilia, cures for unwanted adulterous impulses, or nostrums for other (uncontroversially) harmful forms of love and attraction.

In addition, as Bostrom and Roache (2011) have argued, even the careful anticipation of possible benefits and harms is not sufficient to give a full analysis of the prudence of developing some newfangled drug or technology. Rather, these efforts must be coupled with a serious attempt to identify “potential supporting policies and practices that can alter the balance for the better” (144). The philosopher C. A. J. Coady (2009) has articulated a similar view:

If indeed there is insufficient knowledge of outcomes and consequences, or no social or institutional regulatory regime for prudent implementation of the innovations and for continuing scrutiny of their effects, or no room for overview of the commercial exploitation of the innovations, then . . . critics [of new biotechnologies] clearly have a point. [But] warnings can be heeded. [We can] insist on safeguards and regulation, both scientific and ethical. (165, emphasis added)

In the case of high-tech conversion therapy in particular (or other similar interventions), such regulations might include legal prohibitions against the use of such technologies on minors. For example, Hicks (1999) has argued that “the judiciary should interpret [existing] child abuse statutes and case law to apply to [conversion therapy in order to] protect gay, lesbian, bisexual, and transgender youths from its damaging effects” (510). Likewise, we, too, have argued that conversion therapies—whether of the “low-tech” kind being currently used, or the “high-tech” kinds that may exist in the future—are morally impermissible when applied to incompetent minors, and should be made legally impermissible as well (Earp et al. 2013). When it comes to protecting vulnerable children from the misuse of love- or sexuality-altering technologies, the strong arm of the law could go a long way toward “altering the balance” of benefits-versus-harms more toward the former.

Yet what about such therapy as applied to adults (and perhaps to competent older children)? Should this be made illegal as well? This is a more difficult case, and it needs to be considered in adequate depth. For, “what if one could be assured that the individual in question was indeed a mature adult, competent to make decisions with respect to his own best interest? What if he believed . . . that his same-sex attractions . . . were serving to undermine his cherished relationship with a divine entity, or were otherwise preventing him from achieving his higher-order plans and goals?” (Earp et al. 2013, 13). While we touched upon this question very briefly at the end of our earlier paper, we think that it deserves a more sustained ethical analysis. We turn to this analysis in the following sections.

### Problematic Norms, Suffering, and Social Change

Consider the following statement by Professor Omer Bonne (quoted in Ettinger 2012) director of the psychiatry department at Hadassah University Hospital in Jerusalem, concerning the “yeshiva student” case we mentioned earlier:

Some behaviors put Haredim [ultra-Orthodox Jews] in conflict with their values and cause them mental problems, even to the point of depression. . . . My view concerning drug treatment in such cases has changed. For example, when I was young, idealistic and less experienced, whenever I had a case of homosexuality [or] masturbation . . . I would say: “Homosexuality is not a mental problem, masturbation is certainly not a mental problem or even a medical problem. I do not treat people who do not have a medical problem.” Over the years, [however], I saw that people who do these “awful” things suffer terribly because of the conflicts they create. Those urges, impulses or behaviors place them in conflict with their society, and then they become depressed. In these cases, I would indeed prescribe medicines that block these conditions.

What should we make of Professor Bonne’s remarks? Undoubtedly, ethicists arguing in the vein of Gupta (2012) would claim that what ultimately needs changing in such circumstances are the religious norms that stigmatize “normal” or “healthy” sexual feelings—not the feelings themselves. We are sympathetic with this view. In fact, one of us has made substantially similar arguments with respect to norms about ritual genital cutting of minors within Islam and Judaism—that is, norms that culturally as well as “theologically” stigmatize normal and healthy genital tissue (Earp 2012a; Earp 2013a). Similarly, as Schüklenk and colleagues (1997) have pointed out (referring to conversion therapy specifically): “All too often, scientifically questionable ‘therapeutic’ approaches [have] destroyed the lives of perfectly healthy people” (8). So the stakes in this discussion are very high.

Taking note of these considerations, the counseling psychologist Douglas Haldeman (1994) has argued<sup>9</sup> that members of his profession must attempt to “reverse prejudice” rather than sexual orientation:

Given the extensive societal devaluation of homosexuality and lack of positive role models<sup>10</sup> for gay men and lesbians, it is not surprising that many gay people seek to become heterosexual. Homophobic attitudes have been institutionalized in nearly every aspect of our social structure, from government and the military to our educational systems and organized religions. For gay men and lesbians who have identified with the

dominant group, the desire to be like others and to be accepted socially is so strong that heterosexual relating becomes more than an act of sex or love. It becomes a symbol of freedom from prejudice and social devaluation. [Yet] psychology cannot free people from stigma by continuing to promote or tacitly endorse conversion therapy. Psychology can only combat stigma with a vigorous avowal of empirical truth [i.e., that homosexuality is not a form of illness]. The appropriate focus of the profession is what reverses prejudice, not what reverses sexual orientation. (226)

Haldeman’s analysis is correct as far as it goes. Without question, that is, addressing such issues as institutionalized homophobia, religious fundamentalism, and Bronze Age attitudes about human sexuality should be considered of paramount importance for a progressive bioethics. Yet what can be done in the meantime? In other words, how should the very real, present-day suffering of those religious Haredim Professor Bonne referred to earlier be addressed, given that the repressive sexual norms of their insular communities are unlikely to liberalize any time soon? Could the use of love- or sexuality-altering biotechnologies in such cases ever be morally justified?

One way to answer this question would be to apply the four-point ethical framework we introduced at the beginning of the article (concerning anti-love biotechnology considered generally)—but in the yeshiva student case (as in analogous cases in Islam and Christianity), such an analysis would seem to result in a moral muddle. In other words, the first condition—that the love in question is clearly harmful and indisputably needs to end—is not at all fulfilled, while the second, third, and fourth conditions only might be:

2. The person might indeed conceivably want to use the technology, so that there would be no problematic violations of consent (assuming a mature student/individual).
3. The technology would help the person follow his higher order goals instead of his lower order feelings.
4. It might not be psychologically possible to overcome the “perilous” feelings without the help of anti-love biotechnology.

One response to this scenario might be to latch on to the first, unmet condition. That is, one could argue, as many have argued, that same-sex sexual attraction is only considered “harmful” or otherwise problematic by small-minded, morally unenlightened groups and individuals—or else individuals who have been “brainwashed” into holding such views by, for example, their religious upbringing. Hence, since the love in question is not clearly harmful, biomedical modification must not be used. On this view, any psychiatrist who prescribed a drug to block or diminish a gay person’s sexual feelings—even for the purposes of relieving acute suffering—would be deferring to, and hence responsible for reinforcing, a set of “values” that are morally suspect at best, and simply abhorrent at worst.

9. An abridged version of this quote was included in Earp, Wudarczyk, Sandberg, and Savulescu (2013). Here we greatly expand on our discussion of Haldeman’s views.

10. As a colleague who read an early draft of this article noted, the situation regarding a “lack of positive role models” for individuals who identify as LGBT or Q (the situation emphasized by Haldeman) seems to be slowly improving. For example, the basketball player Jason Collins made headlines in April of 2013 when he became the first active professional in a major sports league (the National Basketball Association) to publicly identify as gay (Collins and Lidz 2013).

There is a rough analogy<sup>11</sup> here with feminist critiques of cosmetic surgery considered as an “enhancement” technology. As Murray (2007) states: “Surgically sculpting one’s body to resemble more closely idealized images of youthful slenderness and firmness may help an individual to feel good . . . [but] surgically reshaping women’s bodies [with reinforcing problematic social norms] along with the women whose bodies are being altered” (511). Instead of turning to surgery, therefore, people should fight against those norms of physical appearance that are the ultimate source of trouble. Problematically, however:

surgeons and others are thrown into [a quandary] when we accuse them of complicity with unjust norms: sometimes patients *are suffering, are seriously disadvantaged* because these norms, however unjust, weigh down their lives. . . . If an intervention can alleviate suffering—even if that suffering comes about only because of oppressive and unjust social norms—why should not clinicians do what helps their patients? (Murray 2007, 511 emphasis in original)

Faced with these sorts of dilemmas, feminist philosophers such as Margaret Olivia Little (1998) have reluctantly acknowledged that the painful reality of individual suffering in the here-and-now presents a genuine predicament in need of some solution: How much personal well-being in today’s imperfect world must be sacrificed on the altar of future, society-wide progress in changing problematic social norms? Ultimately, Little splits the difference between these two considerations, recommending that professionals should “protest against and avoid promoting or profiteering from unjust norms, even as they assist their patients in pursuing them” (as summarized by Murray 2007, 512).

Haldeman (2002) has given a similar argument with respect to “conversion” therapy for religious individuals:

Ideally, the individual ultimately integrates sexual orientation and spirituality into the overall concept of identity by resolving anti-gay stigma internalized from negative experiences in family, social, educational, and/or vocational contexts. But what of the individual who, after careful examination of the aforementioned factors, still feels committed to an exploration of changing sexual orientation or of managing sexual identity? Even with data to prove that all who request a change of sexual orientation are acting out of internalized social pressure, we would be hard-pressed to deny such individuals the treatment . . . they seek. (263)

Our own analysis falls in line. In other words, the most plausible solution to this moral puzzle, we suggest, is that the future, safe, effective, and genuinely voluntary<sup>12</sup> pursuit of

“high-tech” conversion treatment—if such treatment could be shown to relieve profound suffering for an individual who was unable, or who did not want, to throw off the repressive norms or religious beliefs that were the ultimate source of her discomfort—could be considered morally permissible under certain circumstances. However, as Gupta (2012) emphasizes, parallel efforts must also be made to fight against “significant social pressures [that are] placed *only* on sexual minorities to alter their sexual orientations” (2, emphasis added).

### Other Motivations?

The preceding analysis has put a considerable premium on suffering, and on its possible relief through biochemical means. But in order for a person to be justified in requesting (or administering) the sorts of future technological interventions we have been discussing, must “profound suffering” be established in every case? Or could other motivations be considered acceptable as well?

For example, what if one’s philosophical commitments or aesthetic interests served to inspire such a request? What if one were simply curious about what it would be like to be attracted to individuals of an alternative sex or gender? These sorts of cases do not seem inconceivable, and one could certainly argue that “conversion” under these conditions might be justified on grounds of autonomy or by an appeal to the ideal self-creation (see Gupta 2012). To return to the religious scenario, it seems equally possible that one’s spiritual goals or theological commitments could reasonably sanction a decision to alter sexuality, even in the absence of bigoted social pressures. As Haldeman (2002)—once again—points out: “Many religiously oriented individuals have reported that their therapy ignored or attempted to devalue the spiritual aspects of their identity in the interest of facilitating their ‘coming out.’ With some individuals, such an approach imposes sexual orientation over spirituality, neglecting the primary task of integrating all aspects of identity” (263).

More generally, while it is clear that one’s basic sexual attractions are largely determined by factors outside of one’s control—including gene expression, epigenetics, and hormone levels in the prenatal environment (Balthazart 2011)—one’s considered relationship to those attractions, in terms of the behaviors, self-understandings, and identity

[truly] voluntary” (1333). Indeed, as we discuss in the final section of this article, there may be comparatively few cases, in practice, at least in the current climate, in which an individual’s request for conversion therapy could be considered genuinely autonomous given these background forces; however, we cannot rule out the possibility that such cases could arise. Furthermore, the necessary and sufficient conditions for genuine “voluntariness” are hard to pin down even in less-contentious cases: that is, *everyone’s* choices, with respect to a wide range of issues, are (obviously) profoundly influenced by social pressures and other forces, some of which may be analogous to—or at least as potent as—those that could be shaping the ‘conversion’ attempts of individuals who identify as gay or lesbian. But we wouldn’t normally conclude that people are therefore non-autonomous.

11. Portions of this paragraph have been included, in an adapted and edited form, in a forthcoming commentary on the ethics of hymenoplasty (also known as “virginity” surgery) in Islam for the *Journal of Medical Ethics*; see Earp (2013b).

12. But note, as Cruz (1998) states, that “One [must] take seriously the argument that, given the history and present extent of maltreatment of non-heterosexual persons, one cannot meaningfully conclude that any decision to attempt sexual orientation conversion is

labels one chooses to pursue or to adopt, is much more subject to personal beliefs and input, and involves a negotiation between one's "nature" and one's values (Earp 2012b). One's values may indeed be informed by religion, tradition, or spirituality, of course, but they might also be informed by philosophical reflection, or aesthetics, or radical feminism, or secular humanism, or transhumanism, or gender experimentalism, or something else entirely. Thus, there is no obvious moral obligation to "accept" one's default dispositions, nor one's psychobiological baseline, as being inherently good or valuable—whether one is "straight" or "gay" or "bisexual" or even if one rejects such simplistic labeling altogether.<sup>13</sup> And since future technologies may make it possible for one to modify one's basic sexual attractions as well, this process of nature–value "negotiation" is liable to fall even more directly under the influence of one's conscious ideals and commitments over the course of coming years.

One consequence of this perspective is that the claim that "being gay is not a choice"—often repeated by those who (commendably) wish to counteract anti-gay prejudice and harmful discrimination—may rest upon both a muddy conceptual foundation (see Woodson 2012) and a lack of adequate consideration of the temporary nature of biotechnological limitations. Specifically, the "being gay is not a choice" claim confuses one's basic attractions, which—given only the crude state of present-day technology—are indeed largely outside of one's control, with one's identity, which is not. It has been suggested, therefore, that arguments for "gay rights" need to be recast, not in terms of the immutability of orientation labels, or even of the sexual and relational feelings themselves (as technology may shift the relevant possibilities in this regard), but rather in terms of individual rights, premised on the view that people should be free to have consensual sex with whomsoever they please, and marry whomsoever they love (Earp 2012b; Halley 1994).

Taken together, the preceding arguments suggest that the possible development of "high-tech conversion therapy" need not (necessarily) be a cause for alarm. First, such therapy could (and should) be regulated, not only on grounds of safety,<sup>14</sup> but also to ensure that that children and other vulnerable parties would be protected from its coercive application. Second, it might be used to relieve profound suffering for some individuals (even if this suf-

fering were, in fact, due to unjust social pressures). And finally, it could be used in a process of self-creation, for those who wanted to experience alternative sexual and/or relational orientations, whether from same-sex attraction to opposite-sex attraction, opposite-sex attraction to same-sex attraction, or other possibilities in between.

## CONCLUSION

In a recent essay (Earp et al. 2012), we argued that whenever people experience a "mismatch" between (on the one hand) their psychosexual and biological natures and (on the other hand) their considered values (of whatever kind), they come to face a choice. They can (a) give up or amend their values, (b) accept a contradiction between their values and their feelings or behavior, or (c) undertake to modify or manage their psycho-sexual natures, using biotechnology if necessary. Although we endorsed a principle of *default natural ethics*<sup>15</sup>—which stressed that, all else being equal, people should consciously choose to adopt values that are consistent with their innermost natures—we acknowledged that some individuals, in some contexts, might wish to pursue a range of "higher order" goals that put them directly into conflict with basic facts about human biology and sexuality.

When one thinks of a husband resisting the urge to cheat on his spouse, or someone with uncontrollable pedophilic desires agreeing to take androgen-reducing drugs to extinguish his attraction to small children, such "higher order" value pursuit seems understandable and even laudable. In these cases, the "all else being equal" clause of the principle of default natural ethics does not hold up, since it is (potentially) overridden by the harm principle. However, when one considers instead the case of a deeply religious person seeking out conversion therapy,<sup>16</sup> one's intuitions—if they are socially progressive intuitions—shift into reverse. One finds oneself thinking the thoughts of Professor Bonne when he was "young, idealistic and inexperienced"—namely, "homosexuality is not a mental problem . . . or even a medical problem"—and hence that psychiatrists should not treat people "who do not have a medical problem."

This response, although it may suffice in practice (at least for the foreseeable future) as we shall suggest in a moment, may ultimately be too facile on grounds of principle.<sup>17</sup> For, as we have argued elsewhere (Earp et al. 2012), "Individuals should be free to alter their own brain states—through drugs or other means—in order to pursue their personal goals or realize their conception of the good life, so long as they do not harm or infringe upon the rights of others" (562). If this is a general principle, and we believe that it is, then it must extend even to those individuals whose personal goals and whose notions of the good life

13. We do not, of course, believe that human sexuality can be neatly divided into three distinct categories; however, we acknowledge that many individuals do choose to self-identify using these labels.

14. Current technologies should be regulated on grounds of safety, too; especially, more invasive forms of therapy might need to be made largely unavailable (even for autonomous adults) insofar as they are shown to be especially risky and/or dangerous. But we think that our arguments about autonomous self-creation could allow for the use of even present-day "conversion" techniques (however seemingly ineffective) if the person requesting treatment were an adult, were informed of the benefits and risks, were accurately apprised of the effectiveness of the technology (or general lack thereof), and sought out the therapy voluntarily.

15. See section 4.2 of Earp et al. (2012) for a more thorough discussion of the "all else being equal" clause of this principle.

16. Or some future, more effective form of it.

17. Even setting aside debates about the proper aims and limits of "medicine," the value-ladenness of definitions of "health," and so on (see Earp, Sandberg, and Savulescu in press).

do not conform to the “progressive” stereotype. In other words, it seems hard to maintain—if liberalism is to have any point at all—that John Stuart Mill’s famous “experiments in living” should be selectively closed off to socially conservative/religious people, but permitted for everyone else.

At the same time, however, lawmakers and/or psychiatrists are under no obligation to make readily available all manner of powerful drugs, just so that they could be used for such purposes. This is because the gulf between the heady ideals of “in principle” and hard reality of “in practice” is sometimes very wide indeed. In other words, even though we think that mature individuals—that is, individuals who have not been brainwashed, who are competent to reason about their own goals and values, and who are meaningfully autonomous in their decision making—should be permitted to modify themselves pharmacologically in the ways we have described, it does not follow that there are no other reasons why societies might justifiably seek to manage (or restrict access to) certain mind- and self-altering substances. In the case of technologies used to alter sexual preferences or orientation, especially, one has to remember that religious indoctrination, community pressures, stigma, and a host of other powerful social forces may undermine the robust freedom of thought that is ordinarily deemed to be necessary for genuine autonomy. “In practice,” therefore, the justifiable use of such technology may be comparatively rare.

What all of this highlights, at base, is that ethical dilemmas concerning emerging biotechnological innovations cannot be resolved in an academic vacuum. To the contrary, there is a much wider debate 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 (and nearly everything else as well). And plainly 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, regardless of what technology is actually in hand, and regardless of what pontificating bioethicists may argue in their papers. Hence, at the most fundamental level, the relevant question—what we might call the *basic technology-value question*—becomes:

How can we use new technologies for good rather than for ill, while simultaneously trying to reach a functional consensus on what sorts of things *should* be considered good, and what sorts of things should *not* be considered ill?

As one of us (Sandberg 2011) has argued: “Many ‘ethical’ criticisms in the public discourse are often more criticisms of contemporary culture than real attempts to analyze the moral status of different projects. Rather than take aim at the means it may be more productive to actually discuss the ends for which [new biotechnologies may be] used” (85).

“Progressive-minded people” clearly have their work cut out for them in terms of this overarching project.

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