

Identity Matters: Foetuses, Gametes, and Futures like Ours

NICHOLAS RIMELL

Abstract

Recently, a number of philosophers have argued that, despite appearances, the success of Don Marquis's well-known future-like-ours argument against abortion does not turn, in an important way, on the metaphysics of identity. I argue that this is false. The success of Marquis's argument turns on precisely two issues: first, whether it is *prima facie* seriously wrong to deprive something of a future like ours; second, whether, in a counterfactual circumstance in which an abortion does not occur, the foetus is numerically identical with something that, later on, experiences a life like ours. Since the former claim is plausible (albeit disputable), the success of Marquis's argument does turn on the metaphysics of identity in an important way. Before defending a positive argument for this position, I consider what I take to be the most promising way of challenging it. This involves a recent objection to Marquis by Tim Burkhardt (2021). Burkhardt claims that his objection floats free of the metaphysics of identity. I argue that it fails to do so, and that in fact it fails outright. I end by considering the relationship between my arguments and the question of what matters in survival.

1. The (Supposed) Insignificance of Identity

Many issues and arguments in bioethics bring together difficult questions in ethics and in metaphysics, including – at least on the face of it – the metaphysics of identity. Consider Don Marquis's well-known future-like-ours argument for the claim that 'abortion is *prima facie* seriously morally wrong' (1989, p. 192). Marquis's argument consists of two premises. First, killing an adult human is *prima facie* seriously wrong because in general it is *prima facie* seriously wrong to deprive something of a *future like ours* (*a FLO*) – a future filled with the 'activities, projects, experiences, and enjoyments' that, typically, make our lives valuable (p. 189). Second, abortion deprives something – a foetus – of a FLO. The second premise seems to have implications for the identity conditions of foetuses: e.g., that each of us was once a foetus; that, in a typical, full-length pregnancy, the foetus is identical with something that, later on, experiences a life like ours; and so on.

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One way in which the metaphysics of identity seems relevant to Marquis's argument is revealed by an objection the argument faces. Standard accounts of personal identity typically fall into one of two categories: psychological accounts say that psychological continuity of some sort is necessary and sufficient for a person's identity over time; biological accounts say that biological continuity of some sort is necessary and sufficient.¹ Many philosophers (e.g., McMahan, 2002; Manninen, 2007; Heathwood, 2011) have argued that Marquis's argument requires commitment to a biological account since – in the first trimester, when most abortions occur (Lee *et al.*, 2005) – foetuses lack psychological traits and therefore cannot be psychologically continuous with future experiencers of lives like ours. The *objection from opposition to biological accounts of identity*, then, begins with the rejection of biological accounts of identity and infers from this that Marquis's argument fails.²

Some philosophers have argued, however, that – irrespective of the plausibility of objections like the above – the success of Marquis's argument does not importantly turn on the metaphysics of identity. Earl Conee argues that Marquis's argument doesn't turn on metaphysics *at all*, in the sense that 'the metaphysics congenial to Marquis's position provides no support for any particular moral conclusion about abortion' (1999, p. 644).³ Meanwhile, David Shoemaker argues that Marquis's view about abortion 'isn't non-derivatively dependent on conclusions about numerical identity'

¹ In both cases, *continuity* is taken to be the ancestral of *connectedness*, so that – for example – an individual in 1990 is psychologically (or biologically) continuous with an individual in 2070 just in case there is a *chain* of psychological (or biological) connections from the individual in 1990 to the individual in 2070. (E.g., William in 2070 remembers an experience of Bill in 2030, who remembers an experience of Billy in 1990. Or, an individual inherits 99.99% percent of the living cells of an individual, who had just inherited 99.99% percent of the living cells of an individual, and so on. These examples simplify things, of course.)

² See McMahan (2002, Ch. 4 §1–§2). A more recent objection involving the metaphysics of identity holds that Marquis's argument fails if *diachronic universalism* is true. See Vogelstein (2016).

³ According to Conee, this is not unique to Marquis's argument. Conee writes: '[...] metaphysical views seem quite generally to be incapable of providing any support for a moral conclusion about abortion. *This is not merely to say that other premises are needed. It is rather to claim that the metaphysics never so much as enhances the plausibility of the conclusion.* Concerning the morality of abortion, metaphysics is epistemically inert' (p. 621, my emphasis).

(2010, p. 485). And Tim Burkhardt defends an objection to Marquis that, he says, ‘has force regardless of which account of personal identity is true’ – and that, more generally, is intended to float free of the metaphysics of identity – but that also does not directly challenge Marquis’s explanation of the wrongness of killing (2021, p. 3).

My aim in what follows is modest. I argue that the success of Marquis’s argument does importantly turn on the metaphysics of identity. This is not to say that the metaphysics of identity is the *only* issue on which Marquis’s argument turns. Rather, the success of Marquis’s argument turns on (the truth of) precisely two things: first, Marquis’s claim that it is *prima facie* seriously wrong to deprive something of a future like ours;⁴ second, the claim that, in a counterfactual circumstance in which an abortion does not occur, the entity that is at one time a foetus is (numerically) identical with something that, later on, experiences a life like ours. Going forward, I shall sometimes put this second claim more simply as follows: absent an abortion, the foetus would be identical with *an experiencer of a life like ours* – for short, to *an experiencer*.⁵ While only this second claim is (straightforwardly) about the metaphysics of identity, the first claim – while disputable – is certainly plausible. So, if the second claim is true, then its truth counts significantly in favour of Marquis’s argument.

In what follows I offer first a negative and then a positive defence of my position. In §2 I consider what I take to be the most promising case for the claim that Marquis’s argument does not importantly turn on the metaphysics of identity. This is Burkhardt’s objection. I argue, *pace* Burkhardt, that his objection essentially depends on the failure of biological accounts of identity. In §3 I consider and reject a potential way of resisting my argument in §2, and in the process of doing so I characterize a philosophical dispute that plays an important role in the remainder of the paper. This is the dispute between *endurantist* and *perdurantist* views of persistence. In §4 I advance my positive argument. One upshot of this argument is that

⁴ See Steinbock (2011, Ch. 1–2) for an argument against this claim, and see Conee (1999, pp. 643–4) for discussion. Thomson (1971) advances arguments that conflict with this claim.

⁵ So, again, in considering whether a foetus is ‘identical with an experiencer’, we are considering whether the foetus is identical with something that, *later on*, experiences a life like ours. Note also that, while I use the term ‘experience’ (following Burkhardt, 2021), to experience a life like ours is not simply to have one or more passive experiences. It is, rather, to *live* a life – a life made up of many different experiences, active pursuits, and so on.

Burkhardt's objection fails outright. The more important upshot, again, is that Marquis's argument importantly turns on the metaphysics of identity in the way discussed above. I end in §5 by discussing the relationship between my arguments and the question of *what matters in survival*.

2. Identity Matters in Burkhardt's Fission Argument

Recently, Tim Burkhardt (2021) has defended an objection to Marquis that does not challenge Marquis's explanation of the wrongness of killing but that also purports to float free of the metaphysics of identity. Burkhardt's objection is that, if abortion wrongfully deprives a foetus of a FLO, then – absurdly – contraception wrongfully deprives a sperm and an ovum each of a FLO. Like the objection from opposition to biological accounts of personal identity, Burkhardt's objection is aimed at disputing the idea that a foetus's biological continuity with an experiencer (of a life like ours) is enough to show that abortion deprives a foetus of a FLO. However, Burkhardt does not dispute biological accounts of identity or any other claim about the identity conditions of foetuses. Rather, Burkhardt seeks to show that Marquis's argument fails even if (counterfactually) foetuses are identical with experiencers. That is, according to Burkhardt, 'the fundamental problem with Marquis's argument [...] is not his view that identity across time is a matter of merely biological relations, but his investment of those relations with moral significance' (2021, p. 3).

Burkhardt's objection consists of his considering, and disputing, actual or possible attempts at identifying what I'll call 'a morally relevant difference between foetuses and gametes' – more precisely, a difference between foetuses and gametes that explains why abortion deprives foetuses of FLOs but contraception does not deprive gametes of FLOs. Burkhardt begins with Marquis's attempt at identifying such a difference (1989, 2002). The difference, Marquis says, is that a sperm and an ovum are two things, whereas a foetus is one. This difference is morally relevant because (typically) a successful pregnancy results in only one future and because two things cannot be deprived of the same future (Marquis, 1989, p. 201; 2002, pp. 77–8).

According to Burkhardt, Marquis's explanation commits him to three (jointly) conflicting claims. The first is that – as I'll put it – *identity is necessary for deprivation*, i.e., necessarily, an event deprives an entity of a FLO *only if*, absent that event, *that entity* would have,

eventually, experienced a life like ours (2021, pp. 3–5).⁶ Since identity is transitive (and symmetric), two nonidentical entities could not *both* be identical with whatever, absent contraception, goes on to experience a life like ours. So, if identity is necessary for deprivation, then two things cannot be deprived of the same future. On the other hand, if identity is not necessary for deprivation, then it's not clear why two things – a sperm and an ovum, for instance – cannot be deprived of the same future.

The second claim is that a biological continuity account of identity is true. Again, since foetuses at the time of (most) aborted pregnancies do not have psychological traits, Marquis's claim that abortion deprives foetuses of FLOs – together with his commitment to the claim that identity is necessary for deprivation – commits Marquis to denying psychological accounts of identity and to accepting, instead, a biological account (2021, pp. 5–6).

The third claim is what Burkhardt calls the 'uniqueness requirement': the claim that 'for any two human organisms who are biologically continuous with each other, these organisms can be identical only if the relevant continuity relation does not take a branching form' (2021, p. 7). This claim is really a corollary to, and indeed an implication of, the second. Any plausible biological account of identity must come with a specific conception of what exactly the relation of biological continuity that is necessary and sufficient for identity amounts to (e.g., a causal process of a certain sort, or sameness of certain biological features, or something else). Moreover, since identity is transitive (and symmetric), this conception must include (or at least imply) the requirement that the relevant biological continuity relation be *non-branching*, i.e., that, necessarily, for any person x and any y , x is identical with y if *and only if* x (at a time) is biologically continuous with y (at a time) *and with nothing else*.⁷

According to Burkhardt, these three commitments together commit Marquis to something unacceptable: namely, that whether or not something can be deprived of a FLO depends entirely on

⁶ Marquis himself explicitly identifies this as a necessary condition for deprivation (2002, p. 78).

⁷ Another requirement for Marquis is that the account characterizes continuity in terms of features that even early-term foetuses have. Standard biological accounts meet this requirement (see, e.g., van Inwagen 1990, §14, and Olson 1997, §4.5). So, it is these I will have in mind when speaking of biological accounts going forward. But it is worth noting the possibility of a biological account that does not meet this requirement. (Thanks to an anonymous referee for pointing out this possibility.)

whether it stands in a biological continuity relation that is *non-branching*. According to Burkhardt, '[e]ven if we grant that merely biological relations are morally relevant with respect to deprivation, it strains the imagination to think that a being's ability to be deprived of a future could depend on whether or not it stands in such relations *uniquely*' (2021, p. 7). To demonstrate Marquis's commitment to this and to argue that such a commitment is unacceptable, Burkhardt presents the following scenario:

Suppose Fiona is a fifteen-week-old foetus scheduled for an abortion on Monday afternoon. Suppose also that, if she were not aborted at that time, she would divide like an amoeba on Tuesday morning. The result of this bizarre event would be two distinct fetuses, each of whom is biologically continuous with Fiona (in the past) and with a postnatal human being (in the future). (2021, p. 7)

Burkhardt argues, first, that – in the counterfactual circumstance in which an abortion does not occur but fission does – Fiona is not identical with anything existing after her fission (pp. 7–8). Again, in this circumstance, Fiona is biologically continuous with two postnatal human beings. Since identity is transitive (and symmetric), 'Fiona cannot be identical to both of these human beings' (p. 7). But, nor, it would appear, could she be identical with precisely one of them, since it would be wholly arbitrary which one. Nor are there any other plausible candidates with whom Fiona may be identical – e.g., she is not identical with 'some third thing composed of the union of the two' (p. 7). So, Burkhardt concludes:

Counterfactual

In the counterfactual circumstance in which the abortion doesn't occur (but fission does), Fiona is not identical with anything existing after division, i.e., '[h]er division on Tuesday morning marks the end of her existence' (p. 8).

Burkhardt argues, second, that – even though counterfactually Fiona is not identical with an experiencer (of a life like ours) – her (actual) Monday-scheduled abortion still deprives her of a FLO, at least assuming – as Marquis must – that biological continuity (of the appropriate sort) is sufficient for identity and, accordingly, for deprivation. In the counterfactual scenario, 'Fiona stands in two biological continuity relations – call them R_2 and R_3 – to two distinct experiencers' (p. 8). Assuming that standing in a biological continuity relation *to a single experiencer* is sufficient for deprivation (as Marquis must assume), 'if Fiona stood in just one of them (say,

just R_2), then [...] aborting Fiona would deprive her of a valuable future' (p. 8). But:

No Difference

' R_3 makes no difference at all to R_2 except that it renders R_2 non-unique' (p. 8).

Consequently, Burkhardt asserts:

No Effect

'[I]f standing in R_2 alone is sufficient for abortion to deprive Fiona of a valuable future, then it is very hard to believe that the mere existence of R_3 could make the difference between an abortion which inflicts upon her "one of the greatest losses one can suffer" and one which inflicts no loss at all upon her' (p. 8).⁸

Thus, Burkhardt concludes, if Fiona's (counterfactual) biological continuity with a single experiencer is sufficient for deprivation, then so too is her biological continuity with multiple experiencers. But, then, identity is not necessary for deprivation after all.

Call Burkhardt's overall argument against Marquis's explanation 'the Fission Argument'. Notice that Burkhardt, in advancing this argument, does not explicitly reject biological accounts of identity. So, it may appear – as Burkhardt himself would insist – his argument is consistent with such views.

But here appearances are deceiving. Philosophers have often observed that fission scenarios pose a challenge to continuity accounts of identity precisely because these accounts seem to conflict with the fact that identity is transitive (and symmetric). The Fission Argument is really a variation on – and, I shall argue, ultimately relies on the same principles underlying – a traditional argument that rejects biological accounts (and continuity accounts more generally) on these grounds.⁹

⁸ Burkhardt quotes Marquis (1989, p. 189).

⁹ See Williams (1960), Wiggins (1967, §4.3), Nozick (1981), S. Shoemaker (1984), Garrett (1998), Merricks (1998), van Inwagen (1990), and Hawley (2005) for discussion. As Burkhardt suggests (2021, p. 8), his argument is an adaptation of Parfit's (1971; 1984, Ch. 12) attempt at leveraging the challenge that fission poses to continuity accounts in arguing for a claim about what should be of practical concern for persons. I believe that Parfit's argument relies on a metaphysics of persistence to which Burkhardt is not entitled. See my §3, along with my §4, n. 31.

To begin to see this, return to Burkhardt's key inference from No Difference to No Effect. This straightforwardly relies on the following:

Link

If R_3 makes no difference at all to R_2 except that it renders R_2 non-unique, then – if standing in R_2 alone is sufficient for *abortion to deprive Fiona of a FLO* – so too is standing in R_2 and in R_3 .¹⁰

If Link is true (and should be endorsed), then this is *because* the following is true (and should be endorsed):

Existence

If R_3 makes no difference at all to R_2 except that it renders R_2 non-unique, then – if standing in R_2 alone is sufficient for *Fiona to continue to exist well past Tuesday* – so too is standing in R_2 and in R_3 .

Link is highly plausible. But so is Existence: how could Fiona's continuing to exist plausibly depend on some *other*, causally irrelevant thing's *not* existing? More to the point, say that Existence is false. Then so is Link. For the plausibility of Link derives from the fact that, since R_3 makes no *intrinsic* difference to R_2 , there *at least seems* to be no plausible explanation for how the addition of R_3 could make a difference as to whether abortion deprives Fiona of a FLO. But, if Existence is false, then the mere (counterfactual) addition of R_3 *does* make a difference as to whether abortion has deprived Fiona of a FLO, and we now have a straightforward, principled explanation for why: in the counterfactual circumstance in which R_3 obtains, Fiona won't continue to exist and, accordingly, won't go on to experience a life like ours! So, abortion doesn't deprive her of anything! So, Link is true only if Existence is true. Say, then, that Link is true. Then Existence is true. Moreover, in this case, the truth of Existence *explains* the truth of Link. Link is true because the mere addition of R_3 (in the counterfactual case in which there is no abortion) makes no difference as to whether abortion deprives Fiona of a FLO precisely because it makes no difference as to whether (in this counterfactual case) Fiona would go on to experience a FLO.

¹⁰ This is just the conditional whose antecedent is No Difference and whose consequent is a concise statement of No Effect.

To summarize, Burkhardt's crucial inference from No Difference to No Effect relies straightforwardly on Link, which – I've just argued – relies on Existence.

It follows that Burkhardt's Fission Argument ultimately relies on principles that, by themselves, constitute an argument against biological accounts of identity. To tailor this argument to Burkhardt's case involving Fiona (in circumstances *not* involving abortion), we might present the argument as follows:

Assume for *reductio* that a biological account of identity is true, so that – in the case in which fission does not occur and, accordingly, Fiona stands in R_2 *uniquely* – Fiona continues to exist past Tuesday.¹¹ However, in the circumstance in which fission occurs, Fiona stands in R_2 *and* in R_3 and, accordingly, is not identical with anything existing after division, i.e., as Burkhardt puts it, '[h]er division on Tuesday morning marks the end of her existence' (2021, p. 8) (Counterfactual). But R_3 makes no difference to R_2 except that it renders R_2 non-unique (No Difference). So, it follows (given Existence) that, if Fiona's standing in R_2 alone is sufficient for her existing past Tuesday, then so is her standing in R_2 and in R_3 . But we saw earlier that Fiona continues to exist past Tuesday when she stands in R_2 uniquely, but also that she doesn't when she stands both in R_2 and in R_3 . We have a contradiction. So, to discharge our assumption for *reductio*: biological accounts of identity are false.

Call this argument the Existence Argument. While I have cast the Existence Argument in terms of Burkhardt's scenario involving Fiona, this argument needn't be cast in these terms. It may centre on the division of any entity of the sort that can, at least in non-fission cases, stand in whatever biological relation is proposed to be sufficient (and necessary) for identity. For instance, Peter van Inwagen considers a version of this argument centring on an intelligent amoeba with two centres of bodily control (1990, pp. 202–12). So, the Existence Argument, in its essence, is not new. Moreover, and more importantly, the Existence Argument ultimately relies on a total of three principles: Counterfactual, No Difference, and Existence. Burkhardt's Fission Argument explicitly relies on Counterfactual and No Difference. And Burkhardt's crucial

¹¹ Here we are just stipulating, *following Burkhardt* (2021, p. 8), that R_2 is whatever biological relation a proponent of a particular biological account takes to be sufficient for identity with a postnatal being.

inference from No Difference to No Effect ultimately relies on Existence. So, Burkhardt's Fission Argument ultimately relies on principles that, by themselves, constitute an argument against biological accounts of identity.

Here is one consequence of this fact: any successful objection to this argument against biological accounts will also undermine the Fission Argument. For instance, one plausible way to respond to the Existence Argument is to characterise what biological continuity *of the appropriate sort* is in a way that is independently plausible and that plausibly entails that branching scenarios will not obtain (but without one's simply *stipulating* that the biological continuity relation must be non-branching).¹² For instance, van Inwagen characterises biological continuity in terms of *having the same life*, and as van Inwagen understands what it is to have a life (a biological process of a complex sort), the process of fission would inevitably disrupt a life (1990, pp. 148–9 and pp. 202–12). So, van Inwagen rejects (or would reject) No Difference. If No Difference is false, Burkhardt's Fission Argument fails.¹³

Here is another consequence, one that immediately follows. Recall that Burkhardt's Fission Argument seeks to show that Marquis's explanation of the morally relevant difference between foetuses and gametes fails. It turns out that, *pace* Burkhardt, the success of the Fission Argument – and, accordingly, of Burkhardt's objection to Marquis – depends on the failure of biological accounts of identity (and, moreover, does not advance a new objection to such accounts). For, if a biological account of identity is correct, then the Existence Argument goes wrong somewhere. And, if the Existence Argument goes wrong somewhere, then – as I've argued above – so does Burkhardt's Fission Argument.

¹² Proponents of this response needn't deny that Fiona's fission is possible. They need only insist that, in this case, Fiona does not stand in a biological continuity relation *of the appropriate sort* to experiencers.

¹³ Additional ways of resisting the Existence Argument – and, accordingly, the Fission Argument – may include (i) claiming that identity can be relative to times or (ii) claiming that Fiona still survives as a spatially divided individual, perhaps by partially constituting two new individuals resulting from the division. (Thanks to an anonymous referee for the latter suggestion.) Note that here I am assuming a background *endurantist* view of persistence. See §3 for a discussion of perdurantism and endurantism and of their relation to the Fission Argument.

3. Fission and the Metaphysics of Persistence

The success of my response to Burkhardt turns on the success of my argument that, if Link is true, its truth is explained by the truth of Existence. This may be disputed. But disputing it essentially involves an appeal to a view of persistence that proponents of the Fission Argument must deny. Let me explain.

Perdurantism says that persons and other ordinary material objects persist by perduring. Take me, for instance. For me to perdure is for me to exist at various times by having temporal parts located at those times. For any time *t* at which I am located, my *t*-located temporal part, or stage, is the thing that (i) is located precisely at *t*, (ii) is my part at *t*, and (iii) overlaps (shares a part with) each part I have at *t*.¹⁴ For instance, my noon-located temporal part, or noon-located *person*-stage, is located at noon and nowhen else, is a part of me at noon, and overlaps each part I have at noon. Perdurantists standardly explain property change by holding that my temporary property instantiations are derivative on the property instantiations of my temporal parts: for any time *t* and temporary property *F* such that I am *F* at *t*, my being *F* at *t* amounts to my *t*-located stage's being *F*. For instance, if I feel awake at 7 pm but feel sleepy at 11 pm, that amounts to my 7-pm-located stage's feeling awake and my 11-pm-located stage's feeling sleepy.

Perdurantism's main rival is *endurantism*.¹⁵ Endurantists say that persons and other ordinary material objects persist by enduring. For me to endure is for me to exist at various times but not by having different temporal parts at those times. Rather, if I endure, then for any time at which I exist, I am *wholly present* at that time, in the sense that all of the parts I have *simpliciter* exist at that time. Since endurantists deny that I have (proper) temporal parts, they cannot appeal to temporal parts to explain my temporary property instantiations. Rather, endurantists must maintain that when, for instance, it is 7 pm, I *myself* (non-derivatively) have the property of

¹⁴ I follow Sider (2001, p. 59).

¹⁵ A third option is *stage theory*, according to which ordinary objects are not themselves perduring objects but rather are such objects' stages. Stage theory implies that no ordinary object (e.g., a person, or a foetus) exists at multiple times, in which case biological continuity is not sufficient for identity over time. So, accepting stage theory would straightforwardly require proponents of the Fission Argument to reject biological accounts of identity, which again is what Burkhardt seeks to avoid.

feeling awake, and that four hours later I myself will (non-derivatively) have the property of *feeling sleepy*.¹⁶

Now return to my argument that, if Link is true, it is true because Existence is true. This argument is hard to resist given endurantism. For, given endurantism, in the counterfactual circumstance in which Fiona is at one time a foetus and at a later time an experiencer, it really is Fiona who (non-derivatively) experiences joy, (non-derivatively) performs actions in pursuit of meaningful projects, etc. It is hard to deny that, in this case, the answer to whether abortion deprives Fiona of a FLO turns on – and is explained by – the answer to whether (counterfactually) Fiona herself eventually experiences a life like ours. But say, instead, that perdurantism is true. Then, in the counterfactual circumstance in which Fiona is identical with an experiencer, this just amounts to Fiona's having a number of well-after-birth-located person-stages that experience joy, perform actions in pursuit of meaningful projects, etc. In this case, it seems at least plausible to assert that the answer to whether abortion deprives Fiona of a FLO does not turn on – and isn't explained by – the answer to whether, counterfactually, Fiona is identical with an experiencer.

Or so one may argue. In §4, I'll argue that my argument in §2 succeeds even given perdurantism. But for now I wish to observe that, even if the above-presented objection to my argument succeeds, it is not available to proponents of the Fission Argument.

Return to Burkhardt's original scenario: Fiona goes out of existence on Monday as a result of an abortion; had the abortion not occurred, on Tuesday Fiona would have undergone fission. Remember that a key to Burkhardt's argument is that, in the counterfactual scenario, Fiona stands in *two* biological continuity relations, to *two* separate experiencers. And remember that another key is that, *in yet another counterfactual scenario in which neither the Monday abortion nor the Tuesday division occurs*, Fiona stands in just one biological continuity relation, to just one experiencer. Call the former 'the Two-Relations scenario' and the latter 'the One-Relation scenario'. Burkhardt wants to say that whether abortion deprives Fiona of a FLO cannot depend on whether, absent the abortion, the One-Relation or the Two-Relations scenario obtains. But assume perdurantism. Then we cannot consistently maintain

¹⁶ Endurantists must explain how this is possible. One option involves accepting an A-theoretic view of time, according to which how things are now – as opposed to how they were or how they will be – is an objective matter. But there are alternatives. See Haslanger (2003) for discussion.

that Fiona herself exists, even briefly, in *both* of these scenarios. Let's grant that she exists in the One-Relation scenario. Then, given perdurantism, in this scenario Fiona is a four-dimensional 'worm' composed of stages located from a time at or after conception to a time, say, 80 years later. In the Two-Relations scenario, on the other hand, there are two four-dimensional worms – call them 'Fiona₁' and 'Fiona₂' – both about 80 years long (they needn't be the same length, really) and overlapping at all (and only) times up to the Tuesday division. Neither Fiona₁ nor Fiona₂ is Fiona; Fiona simply does not exist in this scenario.¹⁷ So, we still have – *pace* Burkhardt – an extremely compelling reason for claiming that the answer to whether abortion deprives Fiona of a FLO depends on the answer to whether, absent the abortion, it is the One-Relation or the Two-Relations scenario that obtains: in the Two-Relations scenario, Fiona doesn't even exist and, *a fortiori*, doesn't stand in *any* biological continuity relations!

So, if perdurantism is true, the Fission Argument fails, whereas my argument in §2 succeeds assuming endurantism. Here's another way to put this: if endurantism is true, then Burkhardt's objection to Marquis fails provided that a biological account of identity is true; if perdurantism is true, then Burkhardt's objection fails outright.

4. Identity Matters in Deprivation

I shall now argue that the success of Marquis's argument depends precisely two things: first, whether it is seriously wrong to deprive something of a FLO; second, the identity conditions of foetuses in counterfactual scenarios.

I'll begin by explaining – and justifying – two terminological choices.

¹⁷ Thanks to an anonymous referee for this observation. An alternative may be to insist that, in the Two-Relations scenario, Fiona is the four-dimensional object composed of the stages that Fiona₁ and Fiona₂ share. However, to plausibly and consistently maintain this, perdurantists must insist that – even in the One-Relation scenario – Fiona is not the 80-years-long four-dimensional worm but is, instead, the much shorter portion of this worm located before Tuesday. To insist upon this would be to insist that a foetus could not in any circumstance be identical with an experienter. That's fine. But, again, Burkhardt's objection is supposed to succeed regardless of whether, in a counterfactual circumstance, a foetus is identical with something that goes on to experience a life like ours.

First, by ‘is identical with’ I mean *is numerically identical with*. At one point, Burkhardt suggests that by ‘is identical with’ (or ‘is identical to’) he means, instead, *is a stage-mate of*, where *x* is a stage-mate of *y* just in case *x* and *y* are temporal parts of the same individual.¹⁸ If so, this is problematic for a couple reasons. First, it rules out endurantism by fiat. Second, recall from §2 that Burkhardt’s Fission Argument relies on the idea that identity is transitive. Numerical identity is transitive; the *stage-mate of* relation is not.¹⁹ Third, again, Marquis holds that an abortion deprives a foetus – call it ‘A’ – of a FLO since, absent the abortion, A would have, eventually, gone from being a foetus to being (years later) an experiencer (2002, pp. 77–8). This at least *makes sense* if we understand A’s eventually experiencing a life like ours as A’s being numerically identical with something that at one time is a foetus and at a later time experiences a life like ours. But if, instead, we take A (absent an abortion) to be a mere stage-mate of an experiencer, then (at least by Marquis’s lights) it doesn’t make sense to say that A can be deprived of a FLO. For, in this case, even absent the abortion, A *itself* would not have experienced a life like ours.²⁰

Since my goal is to evaluate Marquis’s argument and to explore what it depends on, I should use ‘is identical with’ in a way that allows me to make charitable sense of Marquis’s argument. So, I use ‘is identical with’ to mean *is numerically identical with*, not *is a stage-mate of*.

Note that proponents of both views of persistence discussed earlier can follow me in using ‘is identical with’ to mean *is numerically identical with* and, in doing so, to make plausible sense of Marquis’s commitments regarding the (counterfactual) identities of foetuses. Consider an arbitrary example of a typical abortion: on

¹⁸ See Burkhardt (2021, p. 12). An alternative interpretation is that Burkhardt also means *is numerically identical with* and then makes sense of numerical identity over time as perdurantists do. (See two paragraphs below.)

¹⁹ Say that Lefty and Righty have all the same pre-*t* stages but that, as a result of fission at *t*, they have different post-*t* stages. Let Same be one of the shared stages, and let L and R be stages had only by Lefty and only by Righty, respectively. L is a stage-mate of Same, which is a stage-mate of R. But L is not a stage-mate of R.

²⁰ Compare: if Mary is killed right before graduating medical school, Mary is deprived of a future life as a doctor. Mary’s *med-student stage* (assuming there is such a thing) is not so deprived. For, even absent Mary’s untimely death, Mary’s med-student stage would not have existed beyond the period of time in which Mary is in medical school.

Monday, an abortion occurs, ending the life of a foetus – say, Fete. Now consider the counterfactual circumstance in which the abortion doesn't occur and the pregnancy goes full term, eventually resulting in a certain individual's experiencing a life like ours. Call this individual 'Pete', and – to keep things simple – let t^* be one of the many times at which Pete enjoys a particular experience, performs a particular action, etc., that is part of this life like ours. For instance, say that, at t^* , Pete experiences joy. Marquis will say – and is committed to saying – that, in this counterfactual circumstance:

Neutral Marquis

Fete on Monday is biologically continuous (in the appropriate way) with *Pete at t^** . Accordingly, given a biological account of identity: Fete, who on Monday is a foetus, just is – *is numerically identical with* – Pete, who at t^* is experiencing joy.

Endurantists should understand this description as follows:

Endurantist Marquis

On Monday Fete is in a biological state S , and at t^* Pete is in another biological state S^* , such that S is biologically continuous (in the appropriate way) with S^* .²¹ Accordingly, given a biological account of identity: Fete is numerically identical with Pete, and Fete (aka Pete) has (non-derivatively) the property of *being a foetus* on Monday and then will have (non-derivatively) the property of *experiencing joy* at t^* .²²

Perdurantists, meanwhile, should understand the description as follows:

Perdurantist Marquis

Fete's Monday-located temporal part is biologically continuous (in the appropriate way) with Pete's t^* -located temporal part. Accordingly, given a biological account of identity: Fete is numerically identical with Pete, and Fete (aka Pete) has a temporal part that has the property of *being a foetus* (and that has, as a

²¹ Merricks (1999, §II; 2022, pp. 50–1) provides an analogous endurantist-friendly analysis of *psychological* continuity.

²² To see that Endurantist Marquis (as well as, for analogous reasons, Perdurantist Marquis) is at least plausible, note that what is required is just that S is biologically *continuous* (in the appropriate way) with S^* , not that S is biologically *connected* to S^* . This allows us to acknowledge, for instance, that states S and S^* involve entirely (or almost entirely) different living cells, provided that this difference has resulted from the gradual replacement of living cells over the course of multiple years. (See §1, n. 1.)

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temporal part, Fete's Monday-located temporal part) and also has a t^* -located temporal part that has the property of *experiencing joy*.²³

Notice that, for perdurantists, in the counterfactual circumstance, Fete himself is not identical with a foetus but, rather, has a proper temporal part that is a foetus.

So, again, by 'is identical with' I mean *is numerically identical with*, and in adopting this usage I am able to make charitable sense of Marquis's argument. Moreover, I can do so without presupposing a particular account of persistence.

Here's my second terminological choice. I characterise deprivation as follows:

Event E deprives x of a FLO =_{df} E occurs at a time t such that x does not *possess* a post-t life like ours but, had E not occurred, x would have possessed a post-t life like ours,

where

x possesses a post-t life like ours =_{df} for some y, y experiences a life like ours over some period of time after t, and y's experiencing such a life is good *for x*.²⁴

My understanding of deprivation captures the sense in which, according to Marquis, depriving something of a FLO is (*prima facie*) seriously wrong. This is the sense in which, according to Marquis, killing an adult human is (*prima facie*) seriously wrong. Again, killing an adult human is seriously wrong, for Marquis, because doing so deprives that individual of a FLO. It is seriously wrong to deprive an individual of a FLO because doing so is *bad* for that individual, and doing so is *bad* for that individual because it involves preventing²⁵ something that is (to the same extent) *good* for that individual – namely, the experiencing of a life like ours. (See Marquis, 1989, pp. 189–90.) But how good? Well, good to the

²³ Perhaps this is the option that Marquis himself endorses (though both options are open to him). See Marquis (2002, p. 77).

²⁴ Notice that this definition leaves open the issue of whether x is identical with y.

²⁵ This overly simplistic counterfactual analysis of prevention is unproblematic here. For it is agreed that abortion (like contraception) prevents a life like ours from coming to be. The disagreement is over whether abortion (unlike contraception) thereby deprives an actually existing entity of such a life.

extent that a typical life like ours is good. This is what I shall mean by 'good' going forward.

Consider an arbitrary individual – say, Serena – and an arbitrary time – say, next Monday. In what circumstances does Serena possess a post-Monday life like ours?

Say that, over some period of time after Monday, Serena herself experiences a life like ours. Then, at various times after Monday, Serena has the experiences, pursues the projects, etc., that (typically) make life valuable. But valuable for whom? Well, for Serena! So, if (after Monday) Serena experiences a life like ours, then her doing so is good for her. So, if (after Monday) Serena experiences a life like ours, then there is an individual y (namely, Serena) such that (after Monday) y experiences a life like ours and y 's doing so is good for Serena. So, if (after Monday) Serena experiences a life like ours, then Serena *possesses* a post-Monday life like ours.

Are there other circumstances in which Serena may possess a post-Monday life like ours? Perhaps not. But there are some candidates. Perhaps Serena possesses a post-Monday life like ours if Serena, at some time or other, is a *devoted mentor to* or a *loving parent, friend, etc.*, of someone who, after Monday, experiences a life like ours. Or perhaps Serena possesses a post-Monday life like ours if Serena, at some time or other, is *psychologically continuous with* someone who, after Monday, experiences a life like ours. These exhaust the possibilities. And notice that all of these possibilities involve situations in which Serena herself also counts as, at some time or other, experiencing a life like ours. *Or at least they must if we are to count such things as being good for Serena*, which we must if we are to count such things as ways in which Serena possesses a post-Monday life like ours. It follows that Serena possesses a post-Monday life like ours only if, *over some period of time or other*, Serena herself experiences a life like ours.

To conclude, since 'Serena' is an arbitrary name, and since my argument relies on nothing contingent:

Possession

Necessarily, for any x and any time t , x possesses a post- t life like ours (i) *if*, over some period of time after t , x itself experiences a life like ours, and (ii) *only if*, over some period of time or other, x experiences a life like ours.

The most promising way of disputing my argument for Possession involves perdurantism. Recall that, in experiencing a life like ours over a period of time after Monday, Serena – after Monday – has the experiences, pursues the projects, etc., that (typically) make life

valuable. The key move in my argument is from this claim to the claim that these experiences, projects, etc., make life valuable *for Serena*. This inference is indisputable given endurantism. For, given endurantism, Serena *herself* non-derivatively has these experiences, performs actions in pursuit of these projects, etc. However, given perdurantism, it is not Serena but rather her post-Monday-located temporal parts that non-derivatively have these experiences, perform these actions, etc. In this case, it seems at least plausible to say that, while Serena's experiencing a post-Monday life like ours is valuable, it is not valuable *for Serena* – rather, it is valuable for various of her post-Monday-located temporal parts.²⁶

The problem with this objection is that it cannot plausibly be accepted *by perdurantists*. Begin with the observation that, just as a conceptual truth, a life like *ours* is a life experienced – that is to say, a life lived – by a person. So, in assuming that Serena herself experiences a life like ours, we assume that Serena is a person. Now, perdurantists say that persons are aggregates of temporal parts, not temporal parts themselves. That's the view. So perdurantists must say that there is at least one property that Serena has non-derivatively: *personhood*. Given their view that a person's having a property at a time *t* just is that person's *t*-located stage's having that property, perdurantists should say that Serena has the property of *personhood* timelessly. What other properties should perdurantists say that Serena, as a person, has non-derivatively and, accordingly, timelessly? Another such property must be *living a life that is valuable for her*. For, to begin, plausibly, it is just part of the concept of a person that a person is the appropriate object of moral and practical concern. This requires that a person is an entity of a sort for which things stand to go well (or badly). Second, and to my mind more importantly: consider things from the first-person perspective. When I engage in practical reasoning, I – the person – make decisions partly based on what I believe is good *for me*, not just at a particular time but overall. But this is rational only given that I, the person, am a thing of the sort for which certain things – my life, at the very least – can be good (or bad). So, even perdurantists must say that Serena, and not her person-stages, is the one for whom a life like ours is valuable.

So, Possession is true. It follows that, at least with respect to *pre-natal beings*, identity is necessary and sufficient for deprivation. By

²⁶ Stage theorists could offer an analogous objection. But see n. 28 for why, given stage theory, the main claims I am defending in this section are true anyway.

‘prenatal beings’ I mean foetuses and gametes and any other things of the sort that exist before human births and that are in some sense biologically continuous with postnatal humans. Moreover, let a ‘continuity-disrupting’ event be any event – an abortion, an instance of contraception, or something else – the result of which is that a certain prenatal being (or beings) never ends up standing in a biological continuity relation to a postnatal human (i.e., a birth does not occur). Let *Disruption* be one such event – occurring on Monday, say – and let Venus be the (or a) relevant prenatal being. Has Disruption deprived Venus of a FLO? It depends on what would have been the case, had Disruption not occurred.

First, assume that, in the counterfactual scenario in which Disruption does not occur, Venus herself, eventually, experiences a life like ours. Venus’s experiencing this life takes place over some period of time after Monday, of course. It follows by Possession (i, the sufficiency clause) that Venus possesses a post-Monday life like ours. But, of course, in the *actual* scenario, in which Disruption occurs, there is no time period over which Venus experiences a life like ours. It thus follows by Possession (ii, the necessity clause) that, in the actual scenario, Venus does not possess a post-Monday life like ours (or a post-any-other-time life like ours, for that matter). It thus follows by our definition of ‘deprivation’ that Disruption has deprived Venus of a FLO.²⁷

Now assume that, in the counterfactual circumstance in which Disruption does not occur, it is not the case that Venus, eventually, experiences a life like ours. It follows by Possession (ii, the necessity clause) that, in this counterfactual circumstance, Venus does not possess a post-Monday life like ours. It follows that Disruption does not count as having deprived Venus of a FLO.

So, Disruption deprives Venus of a FLO *if and only if*, had Deprivation not occurred, Venus would have, eventually, experienced a life like ours. So, to conclude (since our example is arbitrary and since nothing in the argument relies on anything contingent):

²⁷ As a reminder, our definition says that an event E deprives an entity x of a FLO just in case E occurs at a time t such that x does not possess a post-t life like ours but, had E not occurred, x would have possessed a post-t life like ours. Disruption occurs on Monday, and Venus does not possess a post-Monday life like ours. But, had Disruption not occurred, Venus would have possessed a post-Monday life like ours.

Deprivation

In order for a continuity-disrupting event to deprive a prenatal being x of a FLO, it is necessary and sufficient that, absent that event, x itself would have, eventually, experienced a life like ours.

Deprivation has several important consequences.

First, it confirms my analysis of Burkhardt's argument. In §2 I argued that – *pace* Burkhardt – the success of Burkhardt's Fission Argument depends on the failure of (all) biological accounts of identity. My argument turned on my claim that, if *abortion's depriving Fiona of a FLO* cannot depend on whether (counterfactually) Fiona stands in R_2 uniquely (Link), then this is because *Fiona's continuing to exist past Tuesday* cannot depend on whether Fiona stands in R_2 uniquely (Existence). I demonstrated in §3 that my claim is true at least given endurantism and that, if perdurantism is true, Burkhardt's argument fails outright. Deprivation implies that my claim is true even given perdurantism. So, Deprivation gives us another reason to see that my argument is sound and, accordingly, that the success of Burkhardt's Fission Argument depends on the failure of biological accounts of identity (as well as on the falsity of perdurantism).

Second, Deprivation shows that Burkhardt's overall objection to Marquis fails outright. Deprivation entails that abortion deprives a foetus of a FLO, *provided that a biological account of identity is true and that, accordingly, absent an abortion a foetus would be identical with something that (later on) experiences a life like ours*. Deprivation also entails that – since a sperm and an ovum are two things and as such cannot be identical with a *single* experiencer of a life like ours – contraception does not deprive a sperm and an ovum of a FLO. So, Deprivation entails that, *if the above-italicized condition is met*, Marquis's explanation for the morally relevant difference between a foetus and gametes is correct. But now recall that Burkhardt's ultimate goal is to show that 'the fundamental problem with Marquis's argument [...] *is not* his view that identity across time is a matter of merely biological relations, *but* his investment of those relations with moral significance' (2021, p. 3, my emphasis). This is false. Either Marquis is wrong to hold 'that identity across time is a matter of merely biological relations' (including in a counterfactual circumstance in which an abortion does not occur) or he is right to invest those relations with moral significance.

A third consequence immediately follows. Marquis's future-like-ours argument succeeds if and only if two principles are true: first, depriving something of a future like ours is *prima facie* seriously

wrong; second, in a counterfactual scenario in which an abortion does not occur, the foetus is (numerically) identical with something that, later on, experiences a life like ours.²⁸ Deprivation takes us from the second principle to the claim that abortion deprives foetuses of FLOs. It follows from this and the first principle that abortion is *prima facie* seriously wrong.

5. Conclusion: What Matters

It has been claimed that, despite appearances, the metaphysics of identity – particularly as it involves foetuses – is not of central importance to the success of Marquis’s well-known future-like-ours argument. This claim is false. Marquis’s argument succeeds if and only if (i) depriving something of a FLO is *prima facie* seriously wrong and (ii), in a counterfactual scenario in which an abortion does not occur, the foetus is (numerically) identical with something that, later on, experiences a life like ours. In the process of demonstrating this, I have considered what to my mind is the most promising attempt at showing that Marquis’s argument fails even if (i) and (ii) are true. I have shown that this attempt is unsuccessful.

I shall end by commenting on the relationship between what I’ve been discussing and the question of *what matters in survival*. For typical human persons, ordinary survival involves or is accompanied by a number of relations. Among these are relations of biological continuity, of psychological continuity, and of identity. Which of these relations *fundamentally matters*, practically (and morally) speaking? Consider Kate, who goes by ‘Katie’ in childhood and by ‘Katherine’ in old age. Say that Katie, as a child, works hard in school because she has a special interest in the welfare of Katherine in old age. What makes this special interest rational? One natural answer is this: the fact that Katie just is – is numerically identical

²⁸ To clarify, Marquis just needs it to be the case that the latter principle is true of typical cases. An atypical case would be Burkhardt’s Fiona case, at least assuming that Burkhardt is correct that Fiona could not have existed beyond the fission. Note also that, if stage theory is true, then Marquis’s argument fails, but it fails because the second above-mentioned principle is false (and then, again, *pace* Burkhardt, the problem with Marquis’s argument is ‘his view that identity across time is a matter of merely biological relations’ (2001, p. 3)). For stage theory implies that, in the counterfactual circumstance in which there is no abortion, the foetus is *not* numerically identical with, but instead is a mere temporal counterpart of, the thing (or things) that later on experience(s) a life like ours.

with – Katherine. Many philosophers provide a different answer. They answer: the fact that Katie in childhood is psychologically continuous with (or psychologically connected to) Katherine in old age. In other words, these philosophers say that what fundamentally matters in survival is not identity but, rather, psychological continuity (or connectedness).²⁹

There is an important sense in which my discussion above is related to the question of what matters in survival. Indeed, we might even characterize my argument in §4 as providing an answer to an analogous question, namely: in virtue of what does someone or something count as *possessing* a life like ours? Call this the question of ‘what matters in possession’. My answer: someone or something counts as possessing a life like ours in virtue of being numerically identical with whatever or whoever, over some period of time, experiences a life like ours. My main interlocutors’ (e.g., Burkhardt’s, David Shoemaker’s) answer: in virtue of something else, i.e., one’s being psychologically continuous with (or connected to) an experiencer of a life like ours.

But there is also an important sense in which my discussion is distinct from the discussion over the question of what matters in survival. My answer to the question of what matters in possession – along with, accordingly, my analysis of Marquis’s argument – does not require me to take a stance on the answer to what matters in survival. We can see this by returning to the debate between endurantists and perdurantists. In the literature on what matters in survival, it has been argued that endurantism implies the *identity* answer to what matters in survival, whereas perdurantism opens up the possibility for alternative answers.³⁰ Moreover, many proponents of the view that psychological continuity (or connectedness) is what matters argue for this position in part by appealing to perdurantism or to a view that arguably implies it.³¹ But, if my arguments above are

²⁹ Proponents of this view include Sydney Shoemaker (1970), Derek Parfit (1971, 1984, 1995), John Perry (1976), Christine Korsgaard (1989), Raymond Martin (1991, 1998), and David Shoemaker (2007).

³⁰ See, e.g., Merricks (1999; 2022, Ch. 1–3). Merricks would put the point by saying that, given endurantism, ‘identity *delivers* survival’ (2022, p. 22, my emphasis).

³¹ See, e.g., Perry (1976). Parfit, meanwhile, argues that ‘[w]e are not separately existing entities’ but that, rather, ‘[o]ur existence just involves the existence of our brains and bodies, and the doing of our deeds, and the thinking of our thoughts, and the occurrence of certain other physical and mental events’ (1984, p. 216). Parfit’s main arguments for the claim that identity does not fundamentally matter take this *reductionist* view of

sound, then both endurantists and perdurantists should answer the question of what matters in possession as I have. That is, they should endorse Possession (and, accordingly, Deprivation). So, even if the dispute between endurantists and perdurantists leaves open how to answer the question of what matters in *survival*, the question of what matters in *possession* (and, accordingly, in *deprivation*) is clear: identity matters.³²

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our existence as a premise. (In the context of Parfit's fission argument, see his 1984, p. 262.) I think the most plausible way to make sense of Parfit's reductionist claim is to take him to endorse a version of perdurantism according to which I am a four-dimensional object whose existence reduces to the existence of my parts. Notice that, if this is right, it allows us to see why Burkhardt's objection to Marquis is unsuccessful without our settling the issue of whether Parfit's fission argument succeeds. (See my §2, n. 9.)

³² I am grateful to Galen Barry and to three anonymous referees for their helpful comments and suggestions. I am also grateful to audience members at the 13th National Conference on Analytic Philosophy: Facts and Values (held online, May 2022, hosted by Southwest Minzu University in Chengdu, China).

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NICHOLAS RIMELL (nicholaskrimell@cuhk.edu.hk) is an assistant professor of philosophy at the Chinese University of Hong Kong. His most recent publication is 'Why Contingentist Actualists Should Endorse the Barcan Formula' (2023), in *Acta Analytica*.